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The data format used by the zlib library is described by RFCs (Request for Comments) 1950 to 1952 in the files ftp://ds.internic.net/rfc/rfc1950.txt (zlib format), rfc1951.txt (deflate format) and rfc1952.txt (gzip format).
*/

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1.5 zlib 1.2.7

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jloup@gzip.org   madler@alumni.caltech.edu

The data format used by the zlib library is described by RFCs (Request for
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*/

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bzip2/libbzip2 version 1.0.2 of 30 December 2001

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1.11 openssh 6.2p2

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```
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 *
 * Optimised ANSI C code for the Rijndael cipher (now AES)
 *
 * @author Vincent Rijmen <vincent.rijmen@esat.kuleuven.ac.be>
 * @author Antoon Bosselaers <antoon.bosselaers@esat.kuleuven.ac.be>
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1.12 zlib 1.2.5

1.12.1 Available under license :

/* zlib.h -- interface of the 'zlib' general purpose compression library
version 1.2.5, April 19th, 2010

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(zlib format), rfc1951.txt (deflate format) and rfc1952.txt (gzip format).
*/
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1.14 zlib 1.2.8

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*/

1.15 ncurses 5.9

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1.16 zlib 1.2.3

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The data format used by the zlib library is described by RFCs (Request for Comments) 1950 to 1952 in the files ftp://ds.internic.net/rfc/rfc1950.txt (zlib format), rfc1951.txt (deflate format) and rfc1952.txt (gzip format).
*/
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* Written for zlib 1.1.2
* Copyright (C) 1998 Brian Raiter <breadbox@muppetlabs.com>
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1.17 readline 6.2

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1.19 kmod 21

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Because of this blurred distinction, using the ordinary General Public License for libraries did not effectively promote software sharing, because most developers did not use the libraries. We concluded that weaker conditions might promote sharing better.

However, unrestricted linking of non-free programs would deprive the users of those programs of all benefit from the free status of the libraries themselves. This Library General Public License is intended to permit developers of non-free programs to use free libraries, while preserving your freedom as a user of such programs to change the free libraries that are incorporated in them. (We have not seen how to achieve this as regards changes in header files, but we have achieved it as regards changes in the actual functions of the Library.) The hope is that this will lead to faster development of free libraries.

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<signature of Ty Coon>, 1 April 1990
Ty Coon, President of Vice

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b) Use a suitable shared library mechanism for linking
with the
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 library `Frob' (a library for tweaking knobs) written by James Random Hacker.

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That's all there is to it!
(This file is under construction.) -*- text -*-

If you've contributed to gas and your name isn't listed here, it is
not meant as a slight. I just don't know about it. Email me,
nickc@redhat.com and I'll correct the situation.

This file will eventually be deleted: The general info will go into
the documentation, and info on specific files will go into an AUTHORS
file, as requested by the FSF.

++++++++++++++++

Dean Elsner wrote the original gas for vax. [more details?]

Jay Fenlason maintained gas for a while, adding support for
gdb-specific debug information and the 68k series machines, most of
the preprocessing pass, and extensive changes in messages.c,
input-file.c, write.c.

K. Richard Pixley maintained gas for a while, adding various
enhancements and many bug fixes, including merging support for several
processors, breaking gas up to handle multiple object file format
backends (including heavy rewrite, testing, an integration of the coff
and b.out backends),
 adding configuration including heavy testing and
verification of cross assemblers and file splits and renaming,
converted gas to strictly ansi C including full prototypes, added
support for m680[34]0 & cpu32, considerable work on i960 including a
coff port (including considerable amounts of reverse engineering), a
sparc opcode file rewrite, decstation, rs6000, and hp300hpux host
ports, updated "know" assertions and made them work, much other
reorganization, cleanup, and lint.

Ken Raeburn wrote the high-level BFD interface code to replace most of
the code in format-specific I/O modules.

The original Vax-VMS support was contributed by David L. Kashtan.

Eric Youngdale and Pat Rankin have done much work with it since.

The Intel 80386 machine description was written by Eliot Dresselhaus.

Minh Tran-Le at IntelliCorp contributed some AIX 386 support.

The Motorola 88k machine description was contributed by Devon Bowen of Buffalo University and Torbjorn Granlund
of the Swedish Institute of
Computer Science.

Keith Knowles at the Open Software Foundation wrote the original MIPS back end (tc-mips.c, tc-mips.h), and contributed Rose format support that hasn't been merged in yet. Ralph Campbell worked with the MIPS code to support a.out format.

Support for the Zilog Z8k and Hitachi H8/300, H8/500 and SH processors (tc-z8k, tc-h8300, tc-h8500, tc-sh), and IEEE 695 object file format (obj-ieee), was written by Steve Chamberlain of Cygnus Solutions. Steve also modified the COFF back end (obj-coffbfd) to use BFD for some low-level operations, for use with the Hitachi, 29k and Zilog targets.

John Gilmore built the AMD 29000 support, added .include support, and simplified the configuration of which versions accept which pseudo-ops. He updated the 68k machine description so that Motorola's opcodes always produced fixed-size instructions (e.g. jsr), while synthetic instructions remained shrinkable (jbsr). John fixed many bugs, including
true tested cross-compilation support, and one bug in
relaxation that took a week and required the proverbial one-bit fix.

Ian Lance Taylor of Cygnus Solutions merged the Motorola and MIT syntaxes for the 68k, completed support for some COFF targets (68k, i386 SVR3, and SCO Unix), wrote the ECOFF support based on Michael Meissner's mips-tfile program, wrote the PowerPC and RS/6000 support, and made a few other minor patches. He handled the binutils releases for versions 2.7 through 2.9.

David Edelsohn contributed fixes for the PowerPC and AIX support.

Steve Chamberlain made gas able to generate listings.

Support for the HP9000/300 was contributed by Glenn Engel of HP.

Support for ELF format files has been worked on by Mark Eichin of Cygnus Solutions (original, incomplete implementation), Pete Hoogenboom at the University of Utah (HPPA mainly), Michael Meissner

of the Open Software Foundation (i386 mainly), and Ken Raeburn of
Cygnus Solutions (sparc, initial
64-bit support).

Several engineers at Cygnus Solutions have also provided many small
bug fixes and configuration enhancements.

The initial Alpha support was contributed by Carnegie-Mellon
University. Additional work was done by Ken Raeburn of Cygnus
Solutions. Richard Henderson then rewrote much of the Alpha support.

Ian Dall updated the support code for the National Semiconductor 32000
series, and added support for Mach 3 and NetBSD running on the PC532.

Klaus Kaempf ported the assembler and the binutils to openVMS/Alpha.

Steve Haworth contributed the support for the Texas Instruction c30
(tms320c30).

H.J. Lu has contributed many patches and much testing.

Alan Modra reworked much of the i386 backend, improving the error
checking, updating the code, and improving the 16 bit support, using
patches from the work of Martynas Kunigelis and H.J. Lu.

Many others have contributed large or small bugfixes and enhancements. If
you've contributed significant
work and are not mentioned on this list, and
want to be, let us know. Some of the history has been lost; we aren't
intentionally leaving anyone out.

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<one line to give the program's
name and a brief idea of what it does.>
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an interactive mode:

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This is free software, and you are welcome to redistribute it
under certain conditions; type `show c' for details.

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<signature of Ty Coon>, 1 April 1989
Ty Coon, President of Vice

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allowed to use
the library. A more frequent case is that a free
library does the same job as widely used non-free libraries. In this
case, there is little to gain by limiting the free library to free
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free software. For example, permission to use the GNU C Library in
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that program using a modified version of the Library.

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a
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@item
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is invoked, then you must make a good faith effort to ensure that,
in the event an application does not supply such function or
table, the facility still operates, and performs whatever part of
its purpose remains meaningful.

(For example, a function in a library to compute square roots has
a purpose that is entirely well-defined independent of the
application.
Therefore, Subsection 2d requires that any
application-supplied function or table used by this function must
be optional: if the application does not supply it, the square
root function must still compute square roots.)
@end enumerate

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must be distributed under the terms of Sections 1 and 2 above on a
medium customarily used for software interchange.

 If distribution of object code is made by offering access to copy
from a designated place, then offering equivalent access to copy the
source code from the same place satisfies the requirement to
distribute the source code, even though third parties are not
compelled to copy the source along with the object code.

@item

A program that contains no derivative of any portion of the Library,
but is designed to work with the Library by being compiled or linked with it, is called a ``work that uses the Library''. Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a ``work that uses the Library'' with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a ``work that uses the library''. The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a ``work that uses the Library'' uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined
by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

@item
As an exception to the Sections above, you may also combine or link a ``work that uses the Library'' with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering
for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one

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@enumerate a
@item
Accompany the work with the complete corresponding
machine-readable source code for the Library including whatever
changes were used in the work (which must be distributed under
Sections 1 and 2 above); and, if the work is an executable linked
with the Library, with the complete machine-readable ``work that
uses the Library'', as object code and/or source code, so that the
user can modify the Library and then relink to produce a modified
executable containing the modified Library.
(It is understood
that the user who changes the contents of definitions files in the
Library will not necessarily be able to recompile the application
to use the modified definitions.)

@item
Use a suitable shared library mechanism for linking with the Library. A
suitable mechanism is one that (1) uses at run time a copy of the
library already present on the user's computer system, rather than
copying library functions into the executable, and (2) will operate
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one, as long as the modified version is interface-compatible with the
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@item
Accompany the work with a written offer, valid for at
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specified in Subsection 6a, above, for a charge no more
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@item
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from a designated place, offer equivalent
access to copy the above
specified materials from the same place.

@item
Verify that the user has already received a copy of these
materials or that you have already sent this user a copy.
@end enumerate

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@enumerate a
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Accompany the combined library with a copy of the same work
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facilities. This must be distributed under the terms of the
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@item
Give prominent notice with the combined library of the fact
that part of it is a work based on the Library, and explaining
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@end enumerate

@iftex
@heading END OF TERMS AND CONDITIONS
@end iftex
@ifinfo
@center END OF TERMS AND CONDITIONS
@end ifinfo

@page
@appendixsubsec How to Apply These Terms to Your New Libraries

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possible use to the public, we recommend making it free software that
everyone can redistribute and change. You can do so by permitting
redistribution under these terms (or, alternatively, under the terms of the
ordinary General Public License).

To apply these terms, attach the following notices to the library. It is
safest to attach them to the start of each source file to most effectively
convey the exclusion of warranty; and each file should have at least the
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@smallexample
@var{one line to give the library's name and an idea of what it does.}
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@end smallexample

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necessary. Here
is a sample; alter the names:

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`Frob' (a library for tweaking knobs) written by James Random Hacker.

@var{signature of Ty Coon}, 1 April 1990
Ty Coon, President of Vice
@end smallexample

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Version 3, 29 June 2007

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stand ready to extend this provision to those domains in future versions of the GPL, as needed to protect the freedom of users.

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The precise terms and conditions for copying, distribution and modification follow.

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1.29 dhcp 4.3.2

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clarify this fact.

* configure.ac, Makefile.am: The original versions were derived from the
 ones in the XML Catalog Manager project, version 2.2.

 Author: Julio Merino <jmmv@users.sourceforge.net>

* atf-c/ui.c: The format_paragraph and format_text functions were
 derived form the ones in the Monotone project, revision
 3a0982da308228d796df35f98d787c5cff2bb5b6.

 Author: Julio Merino <jmmv@NetBSD.org>

* atf-c++/detail/io.hpp, atf-c++/detail/io.cpp, atf-c++/detail/io_test.cpp:
 These files were derived from the file_handle, systembuf, pipe and pistream
 classes and tests found in the Boost.Process library.

 Author: Julio Merino <jmmv84@gmail.com>

* admin/check-style.sh,
 admin/check-style-common.awk,
 admin/check-style-cpp.awk, admin/check-style-shell.awk: These files,
 except the first one, were first implemented in the Buildtool project.
 They were later adapted to be part of Boost.Process and, during that
 process, the shell script was created.

 Author: Julio Merino <jmmv84@gmail.com>

==
vim: filetype=text:textwidth=75:expandtab:shiftwidth=2:softtabstop=2
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1.30 findutils 4.5.14

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End
/***
* Perl-Compatible Regular Expressions *
***/

/* This is the public header file for the PCRE library, to be #included by
applications that call the PCRE functions.

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-----------------------------------------------------------------------------
*/

#ifndef _PCRE_H
#define _PCRE_H

/*
 The current PCRE version information. */

#define PCRE_MAJOR         8
#define PCRE_MINOR         31
#define PCRE_PRERELEASE
#define PCRE_DATE          2012-07-06

/* When an application links to a PCRE DLL in Windows, the symbols that are
imported have to be identified as such. When building PCRE, the appropriate
export setting is defined in pcre_internal.h, which includes this file. So we
don't change existing definitions of PCRE_EXP_DECL and PCRECPP_EXP_DECL. */

#if defined(_WIN32) && !defined(PCRE_STATIC)
#  ifndef PCRE_EXP_DECL
#    define PCRE_EXP_DECL  extern __declspec(dllimport)
#  endif
#  ifdef __cplusplus
#    ifndef PCRECPP_EXP_DECL
#      define PCRECPP_EXP_DECL  extern __declspec(dllimport)
#    endif
#    ifndef PCRECPP_EXP_DEFN
#      define PCRECPP_EXP_DEFN  __declspec(dllimport)
#    endif
#  endif
#endif

/* By default, we use the standard "extern" declarations. */

#ifndef PCRE_EXP_DECL
```

```
#  ifdef __cplusplus
#    define PCRE_EXP_DECL  extern "C"
#  else
#
   define PCRE_EXP_DECL  extern
#  endif
#endif

#ifdef __cplusplus
#  ifndef PCRECPP_EXP_DECL
#    define PCRECPP_EXP_DECL  extern
#  endif
#  ifndef PCRECPP_EXP_DEFN
#    define PCRECPP_EXP_DEFN
#  endif
#endif

/* Have to include stdlib.h in order to ensure that size_t is defined;
it is needed here for malloc. */

#include <stdlib.h>

/* Allow for C++ users */

#ifdef __cplusplus
extern "C" {
#endif

/* Options. Some are compile-time only, some are run-time only, and some are
both, so we keep them all distinct. However, almost all the bits in the options
word are now used. In the long run, we may have to re-use some of the
compile-time only bits for runtime options, or vice versa. In the comments
below, "compile", "exec", and "DFA exec" mean that the option is permitted to
be set for those functions; "used in" means that an option may be set only for
compile, but is subsequently referenced in exec and/or DFA exec. Any of the
compile-time options may be inspected during studying (and
 therefore JIT
compiling). */

#define PCRE_CASELESS           0x00000001  /* Compile */
#define PCRE_MULTILINE          0x00000002  /* Compile */
#define PCRE_DOTALL             0x00000004  /* Compile */
#define PCRE_EXTENDED           0x00000008  /* Compile */
#define PCRE_ANCHORED           0x00000010  /* Compile, exec, DFA exec */
#define PCRE_DOLLAR_ENDONLY     0x00000020  /* Compile, used in exec, DFA exec */
#define PCRE_EXTRA              0x00000040  /* Compile */
#define PCRE_NOTBOL             0x00000080  /* Exec, DFA exec */
#define PCRE_NOTEOL             0x00000100  /* Exec, DFA exec */
```

```
#define PCRE_UNGREEDY          0x00000200  /* Compile */
#define PCRE_NOTEMPTY          0x00000400  /* Exec, DFA exec */
/* The next two are also used in exec and DFA exec */
#define PCRE_UTF8              0x00000800  /* Compile (same as PCRE_UTF16) */
#define PCRE_UTF16             0x00000800  /* Compile (same as PCRE_UTF8) */
#define PCRE_NO_AUTO_CAPTURE   0x00001000  /* Compile */
/*
 The next two are also used in exec and DFA exec */
#define PCRE_NO_UTF8_CHECK     0x00002000  /* Compile (same as PCRE_NO_UTF16_CHECK) */
#define PCRE_NO_UTF16_CHECK    0x00002000  /* Compile (same as PCRE_NO_UTF8_CHECK) */
#define PCRE_AUTO_CALLOUT      0x00004000  /* Compile */
#define PCRE_PARTIAL_SOFT      0x00008000  /* Exec, DFA exec */
#define PCRE_PARTIAL           0x00008000  /* Backwards compatible synonym */
#define PCRE_DFA_SHORTEST      0x00010000  /* DFA exec */
#define PCRE_DFA_RESTART       0x00020000  /* DFA exec */
#define PCRE_FIRSTLINE         0x00040000  /* Compile, used in exec, DFA exec */
#define PCRE_DUPNAMES          0x00080000  /* Compile */
#define PCRE_NEWLINE_CR        0x00100000  /* Compile, exec, DFA exec */
#define PCRE_NEWLINE_LF        0x00200000  /* Compile, exec, DFA exec */
#define PCRE_NEWLINE_CRLF      0x00300000  /* Compile, exec, DFA exec */
#define PCRE_NEWLINE_ANY       0x00400000  /* Compile, exec, DFA exec */
#define PCRE_NEWLINE_ANYCRLF
   0x00500000  /* Compile, exec, DFA exec */
#define PCRE_BSR_ANYCRLF       0x00800000  /* Compile, exec, DFA exec */
#define PCRE_BSR_UNICODE       0x01000000  /* Compile, exec, DFA exec */
#define PCRE_JAVASCRIPT_COMPAT 0x02000000  /* Compile, used in exec */
#define PCRE_NO_START_OPTIMIZE 0x04000000  /* Compile, exec, DFA exec */
#define PCRE_NO_START_OPTIMISE 0x04000000  /* Synonym */
#define PCRE_PARTIAL_HARD      0x08000000  /* Exec, DFA exec */
#define PCRE_NOTEMPTY_ATSTART  0x10000000  /* Exec, DFA exec */
#define PCRE_UCP               0x20000000  /* Compile, used in exec, DFA exec */

/* Exec-time and get/set-time error codes */

#define PCRE_ERROR_NOMATCH         (-1)
#define PCRE_ERROR_NULL            (-2)
#define PCRE_ERROR_BADOPTION       (-3)
#define PCRE_ERROR_BADMAGIC        (-4)
#define PCRE_ERROR_UNKNOWN_OPCODE  (-5)
#define PCRE_ERROR_UNKNOWN_NODE    (-5)  /* For backward compatibility */
#define PCRE_ERROR_NOMEMORY        (-6)
#define PCRE_ERROR_NOSUBSTRING
    (-7)
#define PCRE_ERROR_MATCHLIMIT      (-8)
#define PCRE_ERROR_CALLOUT         (-9)  /* Never used by PCRE itself */
#define PCRE_ERROR_BADUTF8         (-10)  /* Same for 8/16 */
#define PCRE_ERROR_BADUTF16        (-10)  /* Same for 8/16 */
#define PCRE_ERROR_BADUTF8_OFFSET  (-11)  /* Same for 8/16 */
```

```
#define PCRE_ERROR_BADUTF16_OFFSET (-11)  /* Same for 8/16 */
#define PCRE_ERROR_PARTIAL        (-12)
#define PCRE_ERROR_BADPARTIAL     (-13)
#define PCRE_ERROR_INTERNAL       (-14)
#define PCRE_ERROR_BADCOUNT       (-15)
#define PCRE_ERROR_DFA_UITEM      (-16)
#define PCRE_ERROR_DFA_UCOND      (-17)
#define PCRE_ERROR_DFA_UMLIMIT    (-18)
#define PCRE_ERROR_DFA_WSSIZE     (-19)
#define PCRE_ERROR_DFA_RECURSE    (-20)
#define PCRE_ERROR_RECURSIONLIMIT  (-21)
#define PCRE_ERROR_NULLWSLIMIT    (-22)  /* No longer actually used */
#define PCRE_ERROR_BADNEWLINE     (-23)
#define PCRE_ERROR_BADOFFSET      (-24)
#define PCRE_ERROR_SHORTUTF8      (-25)
#define
 PCRE_ERROR_SHORTUTF16     (-25)  /* Same for 8/16 */
#define PCRE_ERROR_RECURSELOOP    (-26)
#define PCRE_ERROR_JIT_STACKLIMIT  (-27)
#define PCRE_ERROR_BADMODE        (-28)
#define PCRE_ERROR_BADENDIANNESS   (-29)
#define PCRE_ERROR_DFA_BADRESTART  (-30)

/* Specific error codes for UTF-8 validity checks */

#define PCRE_UTF8_ERR0            0
#define PCRE_UTF8_ERR1            1
#define PCRE_UTF8_ERR2            2
#define PCRE_UTF8_ERR3            3
#define PCRE_UTF8_ERR4            4
#define PCRE_UTF8_ERR5            5
#define PCRE_UTF8_ERR6            6
#define PCRE_UTF8_ERR7            7
#define PCRE_UTF8_ERR8            8
#define PCRE_UTF8_ERR9            9
#define PCRE_UTF8_ERR10           10
#define PCRE_UTF8_ERR11           11
#define PCRE_UTF8_ERR12           12
#define PCRE_UTF8_ERR13           13
#define PCRE_UTF8_ERR14           14
#define PCRE_UTF8_ERR15           15
#define PCRE_UTF8_ERR16           16
#define PCRE_UTF8_ERR17
          17
#define PCRE_UTF8_ERR18           18
#define PCRE_UTF8_ERR19           19
#define PCRE_UTF8_ERR20           20
#define PCRE_UTF8_ERR21           21
```

```
/* Specific error codes for UTF-16 validity checks */

#define PCRE_UTF16_ERR0            0
#define PCRE_UTF16_ERR1            1
#define PCRE_UTF16_ERR2            2
#define PCRE_UTF16_ERR3            3
#define PCRE_UTF16_ERR4            4

/* Request types for pcre_fullinfo() */

#define PCRE_INFO_OPTIONS          0
#define PCRE_INFO_SIZE             1
#define PCRE_INFO_CAPTURECOUNT     2
#define PCRE_INFO_BACKREFMAX       3
#define PCRE_INFO_FIRSTBYTE        4
#define PCRE_INFO_FIRSTCHAR        4  /* For backwards compatibility */
#define PCRE_INFO_FIRSTTABLE       5
#define PCRE_INFO_LASTLITERAL      6
#define PCRE_INFO_NAMEENTRYSIZE    7
#define PCRE_INFO_NAMECOUNT        8
#define PCRE_INFO_NAMETABLE        9
#define PCRE_INFO_STUDYSIZE        10
#define PCRE_INFO_DEFAULT_TABLES
   11
#define PCRE_INFO_OKPARTIAL        12
#define PCRE_INFO_JCHANGED         13
#define PCRE_INFO_HASCRORLF        14
#define PCRE_INFO_MINLENGTH        15
#define PCRE_INFO_JIT              16
#define PCRE_INFO_JITSIZE          17
#define PCRE_INFO_MAXLOOKBEHIND    18

/* Request types for pcre_config(). Do not re-arrange, in order to remain
compatible. */

#define PCRE_CONFIG_UTF8                  0
#define PCRE_CONFIG_NEWLINE               1
#define PCRE_CONFIG_LINK_SIZE             2
#define PCRE_CONFIG_POSIX_MALLOC_THRESHOLD  3
#define PCRE_CONFIG_MATCH_LIMIT           4
#define PCRE_CONFIG_STACKRECURSE          5
#define PCRE_CONFIG_UNICODE_PROPERTIES    6
#define PCRE_CONFIG_MATCH_LIMIT_RECURSION   7
#define PCRE_CONFIG_BSR                   8
#define PCRE_CONFIG_JIT                   9
#define PCRE_CONFIG_UTF16                 10
#define PCRE_CONFIG_JITTARGET             11
```

```
/* Request types for pcre_study(). Do not re-arrange, in order to remain
compatible.
 */

#define PCRE_STUDY_JIT_COMPILE                0x0001
#define PCRE_STUDY_JIT_PARTIAL_SOFT_COMPILE   0x0002
#define PCRE_STUDY_JIT_PARTIAL_HARD_COMPILE   0x0004

/* Bit flags for the pcre[16]_extra structure. Do not re-arrange or redefine
these bits, just add new ones on the end, in order to remain compatible. */

#define PCRE_EXTRA_STUDY_DATA            0x0001
#define PCRE_EXTRA_MATCH_LIMIT           0x0002
#define PCRE_EXTRA_CALLOUT_DATA          0x0004
#define PCRE_EXTRA_TABLES                0x0008
#define PCRE_EXTRA_MATCH_LIMIT_RECURSION  0x0010
#define PCRE_EXTRA_MARK                  0x0020
#define PCRE_EXTRA_EXECUTABLE_JIT        0x0040

/* Types */

struct real_pcre;                /* declaration; the definition is private  */
typedef struct real_pcre pcre;

struct real_pcre16;              /* declaration; the definition is private  */
typedef struct real_pcre16 pcre16;

struct real_pcre_jit_stack;      /* declaration; the definition is private  */
typedef
 struct real_pcre_jit_stack pcre_jit_stack;

struct real_pcre16_jit_stack;    /* declaration; the definition is private  */
typedef struct real_pcre16_jit_stack pcre16_jit_stack;

/* If PCRE is compiled with 16 bit character support, PCRE_UCHAR16 must contain
a 16 bit wide signed data type. Otherwise it can be a dummy data type since
pcre16 functions are not implemented. There is a check for this in pcre_internal.h. */
#ifndef PCRE_UCHAR16
#define PCRE_UCHAR16 unsigned short
#endif

#ifndef PCRE_SPTR16
#define PCRE_SPTR16 const PCRE_UCHAR16 *
#endif

/* When PCRE is compiled as a C++ library, the subject pointer type can be
replaced with a custom type. For conventional use, the public interface is a
```

```
const char *. */

#ifndef PCRE_SPTR
#define PCRE_SPTR const char *
#endif

/* The structure for passing additional data to pcre_exec(). This is defined in
such as way as to be extensible. Always add new fields at the end, in order to
remain compatible. */

typedef struct pcre_extra {
  unsigned long int flags;        /* Bits for which fields are set */
 void *study_data;              /* Opaque data from pcre_study() */
 unsigned long int match_limit;  /* Maximum number of calls to match() */
 void *callout_data;            /* Data passed back in callouts */
 const unsigned char *tables;    /* Pointer to character tables */
 unsigned long int match_limit_recursion; /* Max recursive calls to match() */
 unsigned char **mark;           /* For passing back a mark pointer */
 void *executable_jit;          /* Contains a pointer to a compiled jit code */
} pcre_extra;

/* Same structure as above, but with 16 bit char pointers. */

typedef struct pcre16_extra {
 unsigned long int flags;        /* Bits for which fields are set */
 void *study_data;              /* Opaque data from pcre_study() */
 unsigned long int match_limit;  /* Maximum number of calls to match() */
 void *callout_data;            /* Data passed back in callouts */
 const unsigned char
 *tables;    /* Pointer to character tables */
 unsigned long int match_limit_recursion; /* Max recursive calls to match() */
 PCRE_UCHAR16 **mark;           /* For passing back a mark pointer */
 void *executable_jit;          /* Contains a pointer to a compiled jit code */
} pcre16_extra;

/* The structure for passing out data via the pcre_callout_function. We use a
structure so that new fields can be added on the end in future versions,
without changing the API of the function, thereby allowing old clients to work
without modification. */

typedef struct pcre_callout_block {
 int          version;          /* Identifies version of block */
 /* ------------------------ Version 0 ------------------------------- */
 int          callout_number;    /* Number compiled into pattern */
 int         *offset_vector;     /* The offset vector */
 PCRE_SPTR    subject;          /* The subject being matched */
 int          subject_length;    /* The length of the subject */
 int
```

```
       start_match;       /* Offset to start of this match attempt */
 int         current_position;  /* Where we currently are in the subject */
 int         capture_top;       /* Max current capture */
 int         capture_last;      /* Most recently closed capture */
 void        *callout_data;     /* Data passed in with the call */
 /* ------------------- Added for Version 1 -------------------------- */
 int         pattern_position;  /* Offset to next item in the pattern */
 int         next_item_length;  /* Length of next item in the pattern */
 /* ------------------- Added for Version 2 -------------------------- */
 const unsigned char *mark;     /* Pointer to current mark or NULL    */
 /* ------------------------------------------------------------------ */
} pcre_callout_block;

/* Same structure as above, but with 16 bit char pointers. */

typedef struct pcre16_callout_block {
 int         version;           /* Identifies version of block */
 /* ------------------------
 Version 0 ------------------------------- */
 int         callout_number;    /* Number compiled into pattern */
 int        *offset_vector;     /* The offset vector */
 PCRE_SPTR16  subject;           /* The subject being matched */
 int         subject_length;    /* The length of the subject */
 int         start_match;       /* Offset to start of this match attempt */
 int         current_position;  /* Where we currently are in the subject */
 int         capture_top;       /* Max current capture */
 int         capture_last;      /* Most recently closed capture */
 void        *callout_data;     /* Data passed in with the call */
 /* ------------------- Added for Version 1 -------------------------- */
 int         pattern_position;  /* Offset to next item in the pattern */
 int         next_item_length;  /* Length of next item in the pattern */
 /* ------------------- Added for Version 2 -------------------------- */
 const PCRE_UCHAR16 *mark;
      /* Pointer to current mark or NULL    */
 /* ------------------------------------------------------------------ */
} pcre16_callout_block;

/* Indirection for store get and free functions. These can be set to
alternative malloc/free functions if required. Special ones are used in the
non-recursive case for "frames". There is also an optional callout function
that is triggered by the (?) regex item. For Virtual Pascal, these definitions
have to take another form. */

#ifndef VPCOMPAT
PCRE_EXP_DECL void *(*pcre_malloc)(size_t);
PCRE_EXP_DECL void  (*pcre_free)(void *);
PCRE_EXP_DECL void *(*pcre_stack_malloc)(size_t);
PCRE_EXP_DECL void  (*pcre_stack_free)(void *);
```

```
PCRE_EXP_DECL int   (*pcre_callout)(pcre_callout_block *);

PCRE_EXP_DECL void *(*pcre16_malloc)(size_t);
PCRE_EXP_DECL void  (*pcre16_free)(void *);
PCRE_EXP_DECL void *(*pcre16_stack_malloc)(size_t);
PCRE_EXP_DECL void  (*pcre16_stack_free)(void *);
PCRE_EXP_DECL int   (*pcre16_callout)(pcre16_callout_block *);
#else
  /* VPCOMPAT */
PCRE_EXP_DECL void *pcre_malloc(size_t);
PCRE_EXP_DECL void  pcre_free(void *);
PCRE_EXP_DECL void *pcre_stack_malloc(size_t);
PCRE_EXP_DECL void  pcre_stack_free(void *);
PCRE_EXP_DECL int   pcre_callout(pcre_callout_block *);

PCRE_EXP_DECL void *pcre16_malloc(size_t);
PCRE_EXP_DECL void  pcre16_free(void *);
PCRE_EXP_DECL void *pcre16_stack_malloc(size_t);
PCRE_EXP_DECL void  pcre16_stack_free(void *);
PCRE_EXP_DECL int   pcre16_callout(pcre16_callout_block *);
#endif  /* VPCOMPAT */

/* User defined callback which provides a stack just before the match starts. */

typedef pcre_jit_stack *(*pcre_jit_callback)(void *);
typedef pcre16_jit_stack *(*pcre16_jit_callback)(void *);

/* Exported PCRE functions */

PCRE_EXP_DECL pcre *pcre_compile(const char *, int, const char **, int *,
              const unsigned char *);
PCRE_EXP_DECL pcre16 *pcre16_compile(PCRE_SPTR16, int, const char **, int *,
              const unsigned char *);
PCRE_EXP_DECL pcre *pcre_compile2(const
 char *, int, int *, const char **,
              int *, const unsigned char *);
PCRE_EXP_DECL pcre16 *pcre16_compile2(PCRE_SPTR16, int, int *, const char **,
              int *, const unsigned char *);
PCRE_EXP_DECL int  pcre_config(int, void *);
PCRE_EXP_DECL int  pcre16_config(int, void *);
PCRE_EXP_DECL int  pcre_copy_named_substring(const pcre *, const char *,
              int *, int, const char *, char *, int);
PCRE_EXP_DECL int  pcre16_copy_named_substring(const pcre16 *, PCRE_SPTR16,
              int *, int, PCRE_SPTR16, PCRE_UCHAR16 *, int);
PCRE_EXP_DECL int  pcre_copy_substring(const char *, int *, int, int,
              char *, int);
PCRE_EXP_DECL int  pcre16_copy_substring(PCRE_SPTR16, int *, int, int,
              PCRE_UCHAR16 *, int);
```

```
PCRE_EXP_DECL int  pcre_dfa_exec(const pcre *, const pcre_extra *,
              const char *, int, int, int, int *, int , int *, int);
PCRE_EXP_DECL int  pcre16_dfa_exec(const pcre16 *, const
 pcre16_extra *,
              PCRE_SPTR16, int, int, int, int *, int , int *, int);
PCRE_EXP_DECL int  pcre_exec(const pcre *, const pcre_extra *, PCRE_SPTR,
               int, int, int, int *, int);
PCRE_EXP_DECL int  pcre16_exec(const pcre16 *, const pcre16_extra *,
               PCRE_SPTR16, int, int, int, int *, int);
PCRE_EXP_DECL void pcre_free_substring(const char *);
PCRE_EXP_DECL void pcre16_free_substring(PCRE_SPTR16);
PCRE_EXP_DECL void pcre_free_substring_list(const char **);
PCRE_EXP_DECL void pcre16_free_substring_list(PCRE_SPTR16 *);
PCRE_EXP_DECL int  pcre_fullinfo(const pcre *, const pcre_extra *, int,
              void *);
PCRE_EXP_DECL int  pcre16_fullinfo(const pcre16 *, const pcre16_extra *, int,
              void *);
PCRE_EXP_DECL int  pcre_get_named_substring(const pcre *, const char *,
              int *, int, const char *, const char **);
PCRE_EXP_DECL int  pcre16_get_named_substring(const pcre16 *, PCRE_SPTR16,
              int
 *, int, PCRE_SPTR16, PCRE_SPTR16 *);
PCRE_EXP_DECL int  pcre_get_stringnumber(const pcre *, const char *);
PCRE_EXP_DECL int  pcre16_get_stringnumber(const pcre16 *, PCRE_SPTR16);
PCRE_EXP_DECL int  pcre_get_stringtable_entries(const pcre *, const char *,
              char **, char **);
PCRE_EXP_DECL int  pcre16_get_stringtable_entries(const pcre16 *, PCRE_SPTR16,
              PCRE_UCHAR16 **, PCRE_UCHAR16 **);
PCRE_EXP_DECL int  pcre_get_substring(const char *, int *, int, int,
              const char **);
PCRE_EXP_DECL int  pcre16_get_substring(PCRE_SPTR16, int *, int, int,
              PCRE_SPTR16 *);
PCRE_EXP_DECL int  pcre_get_substring_list(const char *, int *, int,
              const char ***);
PCRE_EXP_DECL int  pcre16_get_substring_list(PCRE_SPTR16, int *, int,
              PCRE_SPTR16 **);
PCRE_EXP_DECL const unsigned char *pcre_maketables(void);
PCRE_EXP_DECL const unsigned char *pcre16_maketables(void);
PCRE_EXP_DECL int  pcre_refcount(pcre *,
 int);
PCRE_EXP_DECL int  pcre16_refcount(pcre16 *, int);
PCRE_EXP_DECL pcre_extra *pcre_study(const pcre *, int, const char **);
PCRE_EXP_DECL pcre16_extra *pcre16_study(const pcre16 *, int, const char **);
PCRE_EXP_DECL void pcre_free_study(pcre_extra *);
PCRE_EXP_DECL void pcre16_free_study(pcre16_extra *);
PCRE_EXP_DECL const char *pcre_version(void);
PCRE_EXP_DECL const char *pcre16_version(void);
```

```
/* Utility functions for byte order swaps. */
PCRE_EXP_DECL int  pcre_pattern_to_host_byte_order(pcre *, pcre_extra *,
            const unsigned char *);
PCRE_EXP_DECL int  pcre16_pattern_to_host_byte_order(pcre16 *, pcre16_extra *,
            const unsigned char *);
PCRE_EXP_DECL int  pcre16_utf16_to_host_byte_order(PCRE_UCHAR16 *,
            PCRE_SPTR16, int, int *, int);

/* JIT compiler related functions. */

PCRE_EXP_DECL pcre_jit_stack *pcre_jit_stack_alloc(int, int);
PCRE_EXP_DECL pcre16_jit_stack *pcre16_jit_stack_alloc(int, int);
PCRE_EXP_DECL void pcre_jit_stack_free(pcre_jit_stack
 *);
PCRE_EXP_DECL void pcre16_jit_stack_free(pcre16_jit_stack *);
PCRE_EXP_DECL void pcre_assign_jit_stack(pcre_extra *,
            pcre_jit_callback, void *);
PCRE_EXP_DECL void pcre16_assign_jit_stack(pcre16_extra *,
            pcre16_jit_callback, void *);

#ifdef __cplusplus
}  /* extern "C" */
#endif

#endif /* End of pcre.h */
```

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Version 2, June 1991

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[This is the first released version of the library GPL. It is
numbered 2 because it goes with version 2 of the ordinary GPL.]

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That's all there is to it!

```
/* GMODULE - GLIB wrapper code for dynamic module loading
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*
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*/

/*
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* file for a list of people on the GLib Team.  See the ChangeLog
* files for a list of changes.  These files are distributed with
* GLib at ftp://ftp.gtk.org/pub/gtk/.

*/

#ifndef __GMODULE_H__
#define __GMODULE_H__

#include <glib.h>

G_BEGIN_DECLS

/* exporting and importing functions, this is special cased
* to feature Windows dll stubs.
*/
#define G_MODULE_IMPORT  extern
#ifdef G_PLATFORM_WIN32
#  define G_MODULE_EXPORT  __declspec(dllexport)
#else /* !G_PLATFORM_WIN32 */
#  define G_MODULE_EXPORT
#endif /* !G_PLATFORM_WIN32 */

typedef enum
```

```
{
 G_MODULE_BIND_LAZY = 1 << 0,
 G_MODULE_BIND_LOCAL = 1 << 1,
 G_MODULE_BIND_MASK = 0x03
} GModuleFlags;

typedef struct _GModule    GModule;
typedef const gchar* (*GModuleCheckInit) (GModule *module);
typedef void      (*GModuleUnload)  (GModule *module);

/* return TRUE if dynamic module loading is supported */
GLIB_AVAILABLE_IN_ALL
gboolean g_module_supported    (void) G_GNUC_CONST;

/* open a module 'file_name' and return handle, which is NULL on error */
GLIB_AVAILABLE_IN_ALL
GModule*            g_module_open         (const gchar  *file_name,
        GModuleFlags  flags);

/* close a previously
 opened module, returns TRUE on success */
GLIB_AVAILABLE_IN_ALL
gboolean            g_module_close        (GModule      *module);

/* make a module resident so g_module_close on it will be ignored */
GLIB_AVAILABLE_IN_ALL
void                g_module_make_resident (GModule      *module);

/* query the last module error as a string */
GLIB_AVAILABLE_IN_ALL
const gchar *       g_module_error        (void);

/* retrieve a symbol pointer from 'module', returns TRUE on success */
GLIB_AVAILABLE_IN_ALL
gboolean            g_module_symbol       (GModule      *module,
        const gchar  *symbol_name,
        gpointer     *symbol);

/* retrieve the file name from an existing module */
GLIB_AVAILABLE_IN_ALL
const gchar *       g_module_name         (GModule      *module);

/* Build the actual file name containing a module. 'directory' is the
* directory where the module file is supposed to be, or NULL or empty
* in which case it should either be in the current directory
 or, on
* some operating systems, in some standard place, for instance on the
* PATH. Hence, to be absoultely sure to get the correct module,
```

```
* always pass in a directory. The file name consists of the directory,
* if supplied, and 'module_name' suitably decorated according to
* the operating system's conventions (for instance lib*.so or *.dll).
*
* No checks are made that the file exists, or is of correct type.
*/
GLIB_AVAILABLE_IN_ALL
gchar*              g_module_build_path    (const gchar  *directory,
        const gchar  *module_name);


#ifndef __GTK_DOC_IGNORE__
#ifdef G_OS_WIN32
#define g_module_open g_module_open_utf8
#define g_module_name g_module_name_utf8

GLIB_AVAILABLE_IN_ALL
GModule *    g_module_open_utf8 (const gchar  *file_name,
                    GModuleFlags  flags);
GLIB_AVAILABLE_IN_ALL
const gchar *g_module_name_utf8 (GModule      *module);
#endif
#endif

G_END_DECLS

#endif /* __GMODULE_H__ */
```

1.32 grep 2.21

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Version 3, 29 June 2007

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1.33 libpcap 1.6.2

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1.34 libusb 1.0.19

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/* number.c: Implements arbitrary precision numbers. */
/*
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Western Washington University

```
            Bellingham, WA 98226-9062

****************************************************************************/

#include <stdio.h>
#include <config.h>
#include <number.h>
#include <assert.h>
#include <stdlib.h>
#include <string.h>
#include <ctype.h>/* Prototypes needed for external utility routines. */

#define bc_rt_warn rt_warn
#define bc_rt_error rt_error
#define bc_out_of_memory out_of_memory

_PROTOTYPE(void rt_warn, (char *mesg ,...));
_PROTOTYPE(void rt_error, (char *mesg ,...));
_PROTOTYPE(void out_of_memory, (void));

/* Storage used for special numbers. */
bc_num _zero_;
bc_num _one_;
bc_num _two_;

static bc_num _bc_Free_list = NULL;

/* new_num allocates a number and sets fields to known values. */

bc_num
bc_new_num (length, scale)
    int length, scale;
{
 bc_num temp;

 if (_bc_Free_list != NULL) {
   temp = _bc_Free_list;
   _bc_Free_list = temp->n_next;
  } else {
   temp = (bc_num) malloc (sizeof(bc_struct));
   if (temp == NULL) bc_out_of_memory ();
 }
 temp->n_sign = PLUS;
 temp->n_len = length;
 temp->n_scale = scale;
 temp->n_refs = 1;
 temp->n_ptr = (char *) malloc (length+scale);
 if (temp->n_ptr == NULL) bc_out_of_memory();
```

```
 temp->n_value = temp->n_ptr;
 memset (temp->n_ptr, 0, length+scale);
 return temp;
}

/* "Frees" a bc_num NUM.  Actually decreases reference count and only
  frees the storage if reference count is zero. */

void
bc_free_num (num)
   bc_num *num;
{
 if (*num == NULL) return;
 (*num)->n_refs--;
 if ((*num)->n_refs == 0) {
   if ((*num)->n_ptr)
     free ((*num)->n_ptr);
   (*num)->n_next = _bc_Free_list;
   _bc_Free_list = *num;
 }
 *num = NULL;
}


/* Intitialize the number package! */

void
bc_init_numbers ()
{
 _zero_ = bc_new_num (1,0);
 _one_  = bc_new_num (1,0);
 _one_->n_value[0] = 1;
 _two_  = bc_new_num (1,0);
 _two_->n_value[0] = 2;
}


/* Make a copy of a number!  Just
 increments the reference count! */

bc_num
bc_copy_num (num)
    bc_num num;
{
 num->n_refs++;
 return num;
}
```

```
/* Initialize a number NUM by making it a copy of zero. */

void
bc_init_num (num)
    bc_num *num;
{
 *num = bc_copy_num (_zero_);
}

/* For many things, we may have leading zeros in a number NUM.
  _bc_rm_leading_zeros just moves the data "value" pointer to the
  correct place and adjusts the length. */

static void
_bc_rm_leading_zeros (num)
    bc_num num;
{
 /* We can move n_value to point to the first non zero digit! */
 while (*num->n_value == 0 && num->n_len > 1) {
   num->n_value++;
   num->n_len--;
 }
}


/* Compare two bc numbers.  Return value is 0 if equal, -1 if N1 is less
  than N2 and +1 if N1 is greater than N2.  If USE_SIGN is false, just
  compare the magnitudes. */

static int
_bc_do_compare (n1, n2, use_sign, ignore_last)
    bc_num n1, n2;
    int use_sign;
    int ignore_last;
{
 char *n1ptr, *n2ptr;
 int  count;

 /* First, compare
 signs. */
 if (use_sign && n1->n_sign != n2->n_sign)
   {
     if (n1->n_sign == PLUS)
 return (1); /* Positive N1 > Negative N2 */
     else
 return (-1); /* Negative N1 < Positive N1 */
   }
```

```
/* Now compare the magnitude. */
if (n1->n_len != n2->n_len)
  {
    if (n1->n_len > n2->n_len)
{
  /* Magnitude of n1 > n2. */
  if (!use_sign || n1->n_sign == PLUS)
    return (1);
  else
    return (-1);
}
    else
{
  /* Magnitude of n1 < n2. */
  if (!use_sign || n1->n_sign == PLUS)
    return (-1);
  else
    return (1);
}
  }

/* If we get here, they have the same number of integer digits.
   check the integer part and the equal length part of the fraction. */
count = n1->n_len + MIN (n1->n_scale, n2->n_scale);
n1ptr = n1->n_value;
n2ptr = n2->n_value;

while ((count > 0) && (*n1ptr == *n2ptr))
  {
    n1ptr++;
    n2ptr++;
    count--;
  }
if (ignore_last && count == 1 && n1->n_scale == n2->n_scale)
  return (0);
if (count !=
0)
  {
    if (*n1ptr > *n2ptr)
{
  /* Magnitude of n1 > n2. */
  if (!use_sign || n1->n_sign == PLUS)
    return (1);
  else
    return (-1);
}
    else
```

```
{
  /* Magnitude of n1 < n2. */
  if (!use_sign || n1->n_sign == PLUS)
    return (-1);
  else
    return (1);
}
  }

/* They are equal up to the last part of the equal part of the fraction. */
if (n1->n_scale != n2->n_scale)
  {
    if (n1->n_scale > n2->n_scale)
{
  for (count = n1->n_scale-n2->n_scale; count>0; count--)
    if (*n1ptr++ != 0)
      {
 /* Magnitude of n1 > n2. */
 if (!use_sign || n1->n_sign == PLUS)
   return (1);
 else
   return (-1);
      }
}
    else
{
  for (count = n2->n_scale-n1->n_scale; count>0; count--)
    if (*n2ptr++ != 0)
      {
 /* Magnitude of n1 < n2. */
 if (!use_sign || n1->n_sign == PLUS)
   return (-1);
 else
   return (1);
      }
}
  }

 /* They must be equal! */
 return (0);
}


/* This is the "user callable" routine to compare numbers
 N1 and N2. */

int
bc_compare (n1, n2)
```

```
    bc_num n1, n2;
{
 return _bc_do_compare (n1, n2, TRUE, FALSE);
}

/* In some places we need to check if the number is negative. */

char
bc_is_neg (num)
    bc_num num;
{
 return num->n_sign == MINUS;
}

/* In some places we need to check if the number NUM is zero. */

char
bc_is_zero (num)
    bc_num num;
{
 int  count;
 char *nptr;

 /* Quick check. */
 if (num == _zero_) return TRUE;

 /* Initialize */
 count = num->n_len + num->n_scale;
 nptr = num->n_value;

 /* The check */
 while ((count > 0) && (*nptr++ == 0)) count--;

 if (count != 0)
   return FALSE;
 else
   return TRUE;
}

/* In some places we need to check if the number NUM is almost zero.
  Specifically, all but the last digit is 0 and the last digit is 1.
  Last digit is defined by scale. */

char
bc_is_near_zero (num, scale)
    bc_num num;
    int scale;
{
```

```
 int  count;
 char *nptr;

 /* Error checking */
 if (scale > num->n_scale)
   scale = num->n_scale;

  /* Initialize */
 count = num->n_len + scale;
 nptr = num->n_value;

 /* The check */
 while ((count > 0) && (*nptr++ == 0)) count--;

 if (count != 0 && (count != 1 || *--nptr != 1))
   return FALSE;
 else
   return TRUE;
}


/* Perform addition: N1 is added to N2 and the value is
  returned.  The signs of N1 and N2 are ignored.
  SCALE_MIN is to set the minimum scale of the result. */

static bc_num
_bc_do_add (n1, n2, scale_min)
    bc_num n1, n2;
    int scale_min;
{
 bc_num sum;
 int sum_scale, sum_digits;
 char *n1ptr, *n2ptr, *sumptr;
 int carry, n1bytes, n2bytes;
 int count;

 /* Prepare sum. */
 sum_scale = MAX (n1->n_scale, n2->n_scale);
 sum_digits = MAX (n1->n_len, n2->n_len) + 1;
 sum = bc_new_num (sum_digits, MAX(sum_scale, scale_min));

 /* Zero extra digits made by scale_min. */
 if (scale_min > sum_scale)
   {
     sumptr = (char *) (sum->n_value + sum_scale + sum_digits);
     for (count = scale_min - sum_scale; count > 0; count--)
 *sumptr++
```

```
= 0;
  }

/* Start with the fraction part.  Initialize the pointers. */
n1bytes = n1->n_scale;
n2bytes = n2->n_scale;
n1ptr = (char *) (n1->n_value + n1->n_len + n1bytes - 1);
n2ptr = (char *) (n2->n_value + n2->n_len + n2bytes - 1);
sumptr = (char *) (sum->n_value + sum_scale + sum_digits - 1);

/* Add the fraction part.  First copy the longer fraction.*/
if (n1bytes != n2bytes)
  {
    if (n1bytes > n2bytes)
while (n1bytes>n2bytes)
  { *sumptr-- = *n1ptr--; n1bytes--;}
    else
while (n2bytes>n1bytes)
  { *sumptr-- = *n2ptr--; n2bytes--;}
  }

/* Now add the remaining fraction part and equal size integer parts. */
n1bytes += n1->n_len;
n2bytes += n2->n_len;
carry = 0;
while ((n1bytes > 0) && (n2bytes > 0))
  {
    *sumptr = *n1ptr-- + *n2ptr-- + carry;
    if (*sumptr > (BASE-1))
{
   carry = 1;
   *sumptr -= BASE;
}
    else
carry = 0;
    sumptr--;
    n1bytes--;
    n2bytes--;
  }

/* Now add carry the
longer integer part. */
if (n1bytes == 0)
  { n1bytes = n2bytes; n1ptr = n2ptr; }
while (n1bytes-- > 0)
  {
    *sumptr = *n1ptr-- + carry;
    if (*sumptr > (BASE-1))
```

```
 {
   carry = 1;
   *sumptr -= BASE;
 }
    else
 carry = 0;
    sumptr--;
  }

 /* Set final carry. */
 if (carry == 1)
   *sumptr += 1;

 /* Adjust sum and return. */
 _bc_rm_leading_zeros (sum);
 return sum;
}


/* Perform subtraction: N2 is subtracted from N1 and the value is
  returned.  The signs of N1 and N2 are ignored.  Also, N1 is
  assumed to be larger than N2.  SCALE_MIN is the minimum scale
  of the result. */

static bc_num
_bc_do_sub (n1, n2, scale_min)
    bc_num n1, n2;
    int scale_min;
{
 bc_num diff;
 int diff_scale, diff_len;
 int min_scale, min_len;
 char *n1ptr, *n2ptr, *diffptr;
 int borrow, count, val;

 /* Allocate temporary storage. */
 diff_len = MAX (n1->n_len, n2->n_len);
 diff_scale = MAX (n1->n_scale, n2->n_scale);
 min_len = MIN  (n1->n_len, n2->n_len);
  min_scale = MIN (n1->n_scale, n2->n_scale);
 diff = bc_new_num (diff_len, MAX(diff_scale, scale_min));

 /* Zero extra digits made by scale_min. */
 if (scale_min > diff_scale)
   {
     diffptr = (char *) (diff->n_value + diff_len + diff_scale);
     for (count = scale_min - diff_scale; count > 0; count--)
 *diffptr++ = 0;
```

```
  }

/* Initialize the subtract. */
n1ptr = (char *) (n1->n_value + n1->n_len + n1->n_scale -1);
n2ptr = (char *) (n2->n_value + n2->n_len + n2->n_scale -1);
diffptr = (char *) (diff->n_value + diff_len + diff_scale -1);

/* Subtract the numbers. */
borrow = 0;

/* Take care of the longer scaled number. */
if (n1->n_scale != min_scale)
  {
    /* n1 has the longer scale */
    for (count = n1->n_scale - min_scale; count > 0; count--)
*diffptr-- = *n1ptr--;
  }
else
  {
    /* n2 has the longer scale */
    for (count = n2->n_scale - min_scale; count > 0; count--)
{
  val = - *n2ptr-- - borrow;
  if (val < 0)

{
      val += BASE;
      borrow = 1;
    }
  else
    borrow = 0;
  *diffptr-- = val;
}
  }

/* Now do the equal length scale and integer parts. */

for (count = 0; count < min_len + min_scale; count++)
  {
    val = *n1ptr-- - *n2ptr-- - borrow;
    if (val < 0)
{
  val += BASE;
  borrow = 1;
}
    else
borrow = 0;
    *diffptr-- = val;
```

```
  }

 /* If n1 has more digits then n2, we now do that subtract. */
 if (diff_len != min_len)
  {
    for (count = diff_len - min_len; count > 0; count--)
 {
  val = *n1ptr-- - borrow;
  if (val < 0)
    {
      val += BASE;
      borrow = 1;
    }
  else
    borrow = 0;
  *diffptr-- = val;
 }
  }

 /* Clean up and return. */
 _bc_rm_leading_zeros (diff);
 return diff;
}



/* Here is the full subtract routine that takes care of negative numbers.
  N2 is subtracted from N1 and the result placed in RESULT.  SCALE_MIN
  is the minimum scale for the result. */

void
bc_sub (n1, n2, result, scale_min)

    bc_num n1, n2, *result;
    int scale_min;
{
 bc_num diff = NULL;
 int cmp_res;
 int res_scale;

 if (n1->n_sign != n2->n_sign)
  {
    diff = _bc_do_add (n1, n2, scale_min);
    diff->n_sign = n1->n_sign;
  }
 else
  {
    /* subtraction must be done. */
    /* Compare magnitudes. */
```

```
    cmp_res = _bc_do_compare (n1, n2, FALSE, FALSE);
    switch (cmp_res)
 {
 case -1:
  /* n1 is less than n2, subtract n1 from n2. */
  diff = _bc_do_sub (n2, n1, scale_min);
  diff->n_sign = (n2->n_sign == PLUS ? MINUS : PLUS);
  break;
 case  0:
  /* They are equal! return zero! */
  res_scale = MAX (scale_min, MAX(n1->n_scale, n2->n_scale));
  diff = bc_new_num (1, res_scale);
  memset (diff->n_value, 0, res_scale+1);
  break;
 case  1:
  /* n2 is less than n1, subtract n2 from n1. */
  diff = _bc_do_sub (n1, n2, scale_min);
  diff->n_sign = n1->n_sign;
  break;
 }
  }

 /* Clean up and return. */
 bc_free_num (result);
 *result = diff;
}


/* Here is the
 full add routine that takes care of negative numbers.
  N1 is added to N2 and the result placed into RESULT.  SCALE_MIN
  is the minimum scale for the result. */

void
bc_add (n1, n2, result, scale_min)
    bc_num n1, n2, *result;
    int scale_min;
{
 bc_num sum = NULL;
 int cmp_res;
 int res_scale;

 if (n1->n_sign == n2->n_sign)
  {
    sum = _bc_do_add (n1, n2, scale_min);
    sum->n_sign = n1->n_sign;
  }
 else
```

```
  {
    /* subtraction must be done. */
    cmp_res = _bc_do_compare (n1, n2, FALSE, FALSE);  /* Compare magnitudes. */
    switch (cmp_res)
{
 case -1:
  /* n1 is less than n2, subtract n1 from n2. */
  sum = _bc_do_sub (n2, n1, scale_min);
  sum->n_sign = n2->n_sign;
  break;
 case  0:
  /* They are equal! return zero with the correct scale! */
  res_scale = MAX (scale_min, MAX(n1->n_scale, n2->n_scale));
  sum = bc_new_num (1, res_scale);
  memset (sum->n_value, 0, res_scale+1);
  break;
 case  1:
  /* n2 is less than n1, subtract n2 from
 n1. */
  sum = _bc_do_sub (n1, n2, scale_min);
  sum->n_sign = n1->n_sign;
 }
  }

 /* Clean up and return. */
 bc_free_num (result);
 *result = sum;
}

/* Recursive vs non-recursive multiply crossover ranges. */
#if defined(MULDIGITS)
#include "muldigits.h"
#else
#define MUL_BASE_DIGITS 80
#endif

int mul_base_digits = MUL_BASE_DIGITS;
#define MUL_SMALL_DIGITS mul_base_digits/4

/* Multiply utility routines */

static bc_num
new_sub_num (length, scale, value)
   int length, scale;
   char *value;
{
 bc_num temp;
```

```
 if (_bc_Free_list != NULL) {
   temp = _bc_Free_list;
   _bc_Free_list = temp->n_next;
 } else {
   temp = (bc_num) malloc (sizeof(bc_struct));
   if (temp == NULL) bc_out_of_memory ();
 }
 temp->n_sign = PLUS;
 temp->n_len = length;
 temp->n_scale = scale;
 temp->n_refs = 1;
 temp->n_ptr = NULL;
 temp->n_value = value;
 return temp;
}

static void
_bc_simp_mul (bc_num n1, int n1len, bc_num n2, int n2len, bc_num *prod,
      int full_scale)
{
  char *n1ptr, *n2ptr, *pvptr;
 char *n1end, *n2end;  /* To the end of n1 and n2. */
 int indx, sum, prodlen;

 prodlen = n1len+n2len+1;

 *prod = bc_new_num (prodlen, 0);

 n1end = (char *) (n1->n_value + n1len - 1);
 n2end = (char *) (n2->n_value + n2len - 1);
 pvptr = (char *) ((*prod)->n_value + prodlen - 1);
 sum = 0;

 /* Here is the loop... */
 for (indx = 0; indx < prodlen-1; indx++)
   {
     n1ptr = (char *) (n1end - MAX(0, indx-n2len+1));
     n2ptr = (char *) (n2end - MIN(indx, n2len-1));
     while ((n1ptr >= n1->n_value) && (n2ptr <= n2end))
 sum += *n1ptr-- * *n2ptr++;
     *pvptr-- = sum % BASE;
     sum = sum / BASE;
   }
 *pvptr = sum;
}



/* A special adder/subtractor for the recursive divide and conquer
```

```
 multiply algorithm.  Note: if sub is called, accum must
 be larger that what is being subtracted.  Also, accum and val
 must have n_scale = 0.  (e.g. they must look like integers. *) */
static void
_bc_shift_addsub (bc_num accum, bc_num val, int
 shift, int sub)
{
 signed char *accp, *valp;
 int  count, carry;

 count = val->n_len;
 if (val->n_value[0] == 0)
  count--;
 assert (accum->n_len+accum->n_scale >= shift+count);

 /* Set up pointers and others */
 accp = (signed char *)(accum->n_value +
   accum->n_len + accum->n_scale - shift - 1);
 valp = (signed char *)(val->n_value + val->n_len - 1);
 carry = 0;

 if (sub) {
  /* Subtraction, carry is really borrow. */
  while (count--) {
    *accp -= *valp-- + carry;
    if (*accp < 0) {
 carry = 1;
      *accp-- += BASE;
    } else {
 carry = 0;
 accp--;
    }
  }
  while (carry) {
    *accp -= carry;
    if (*accp < 0)
 *accp-- += BASE;
    else
 carry = 0;
  }
 } else {
  /* Addition */
  while (count--) {
    *accp += *valp-- + carry;
    if (*accp > (BASE-1)) {
 carry = 1;
      *accp-- -= BASE;
    } else {
```

```
 carry = 0;
 accp--;
    }
  }
  while (carry) {
    *accp += carry;
    if (*accp > (BASE-1))
 *accp--
 -= BASE;
    else
 carry = 0;
  }
 }
}

/* Recursive divide and conquer multiply algorithm.
  Based on
  Let u = u0 + u1*(b^n)
  Let v = v0 + v1*(b^n)
  Then uv = (B^2n+B^n)*u1*v1 + B^n*(u1-u0)*(v0-v1) + (B^n+1)*u0*v0

  B is the base of storage, number of digits in u1,u0 close to equal.
*/
static void
_bc_rec_mul (bc_num u, int ulen, bc_num v, int vlen, bc_num *prod,
     int full_scale)
{
 bc_num u0, u1, v0, v1;
 int u0len, v0len;
 bc_num m1, m2, m3, d1, d2;
 int n, prodlen, m1zero;
 int d1len, d2len;

 /* Base case? */
 if ((ulen+vlen) < mul_base_digits
    || ulen < MUL_SMALL_DIGITS
    || vlen < MUL_SMALL_DIGITS ) {
  _bc_simp_mul (u, ulen, v, vlen, prod, full_scale);
  return;
 }

 /* Calculate n -- the u and v split point in digits. */
 n = (MAX(ulen, vlen)+1) / 2;

 /* Split u and v. */
 if (ulen < n) {
  u1 = bc_copy_num (_zero_);
  u0 = new_sub_num (ulen,0, u->n_value);
```

```
} else {
  u1 = new_sub_num (ulen-n, 0, u->n_value);
  u0 =
new_sub_num (n, 0, u->n_value+ulen-n);
}
if (vlen < n) {
  v1 = bc_copy_num (_zero_);
  v0 = new_sub_num (vlen,0, v->n_value);
} else {
  v1 = new_sub_num (vlen-n, 0, v->n_value);
  v0 = new_sub_num (n, 0, v->n_value+vlen-n);
  }
_bc_rm_leading_zeros (u1);
_bc_rm_leading_zeros (u0);
u0len = u0->n_len;
_bc_rm_leading_zeros (v1);
_bc_rm_leading_zeros (v0);
v0len = v0->n_len;

m1zero = bc_is_zero(u1) || bc_is_zero(v1);

/* Calculate sub results ... */

bc_init_num(&d1);
bc_init_num(&d2);
bc_sub (u1, u0, &d1, 0);
d1len = d1->n_len;
bc_sub (v0, v1, &d2, 0);
d2len = d2->n_len;



/* Do recursive multiplies and shifted adds. */
if (m1zero)
  m1 = bc_copy_num (_zero_);
else
  _bc_rec_mul (u1, u1->n_len, v1, v1->n_len, &m1, 0);

if (bc_is_zero(d1) || bc_is_zero(d2))
  m2 = bc_copy_num (_zero_);
else
  _bc_rec_mul (d1, d1len, d2, d2len, &m2, 0);

if (bc_is_zero(u0) || bc_is_zero(v0))
  m3 = bc_copy_num (_zero_);
else
  _bc_rec_mul
(u0, u0->n_len, v0, v0->n_len, &m3, 0);
```

```
 /* Initialize product */
 prodlen = ulen+vlen+1;
 *prod = bc_new_num(prodlen, 0);

 if (!m1zero) {
   _bc_shift_addsub (*prod, m1, 2*n, 0);
   _bc_shift_addsub (*prod, m1, n, 0);
 }
 _bc_shift_addsub (*prod, m3, n, 0);
 _bc_shift_addsub (*prod, m3, 0, 0);
 _bc_shift_addsub (*prod, m2, n, d1->n_sign != d2->n_sign);

 /* Now clean up! */
 bc_free_num (&u1);
 bc_free_num (&u0);
 bc_free_num (&v1);
 bc_free_num (&m1);
 bc_free_num (&v0);
 bc_free_num (&m2);
 bc_free_num (&m3);
 bc_free_num (&d1);
 bc_free_num (&d2);
}

/* The multiply routine.  N2 times N1 is put int PROD with the scale of
  the result being MIN(N2 scale+N1 scale, MAX (SCALE, N2 scale, N1 scale)).
  */

void
bc_multiply (n1, n2, prod, scale)
    bc_num n1, n2, *prod;
    int scale;
{
 bc_num pval;
 int len1, len2;
 int full_scale, prod_scale;

 /* Initialize things. */
 len1 = n1->n_len + n1->n_scale;
 len2 = n2->n_len + n2->n_scale;
 full_scale
 = n1->n_scale + n2->n_scale;
 prod_scale = MIN(full_scale,MAX(scale,MAX(n1->n_scale,n2->n_scale)));

 /* Do the multiply */
 _bc_rec_mul (n1, len1, n2, len2, &pval, full_scale);

 /* Assign to prod and clean up the number. */
```

```
 pval->n_sign = ( n1->n_sign == n2->n_sign ? PLUS : MINUS );
 pval->n_value = pval->n_ptr;
 pval->n_len = len2 + len1 + 1 - full_scale;
 pval->n_scale = prod_scale;
 _bc_rm_leading_zeros (pval);
 if (bc_is_zero (pval))
   pval->n_sign = PLUS;
 bc_free_num (prod);
 *prod = pval;
}

/* Some utility routines for the divide:  First a one digit multiply.
  NUM (with SIZE digits) is multiplied by DIGIT and the result is
  placed into RESULT.  It is written so that NUM and RESULT can be
  the same pointers.  */

static void
_one_mult (num, size, digit, result)
    unsigned char *num;
    int size, digit;
    unsigned char *result;
{
 int carry, value;
 unsigned char *nptr, *rptr;

 if (digit == 0)
   memset (result, 0, size);
 else
   {
     if
 (digit == 1)
 memcpy (result, num, size);
     else
 {
   /* Initialize */
   nptr = (unsigned char *) (num+size-1);
   rptr = (unsigned char *) (result+size-1);
   carry = 0;

   while (size-- > 0)
     {
       value = *nptr-- * digit + carry;
       *rptr-- = value % BASE;
       carry = value / BASE;
     }

   if (carry != 0) *rptr = carry;
 }
```

```
  }
}


/* The full division routine. This computes N1 / N2.  It returns
  0 if the division is ok and the result is in QUOT.  The number of
  digits after the decimal point is SCALE. It returns -1 if division
  by zero is tried.  The algorithm is found in Knuth Vol 2. p237. */

int
bc_divide (n1, n2, quot, scale)
    bc_num n1, n2, *quot;
    int scale;
{
 bc_num qval;
 unsigned char *num1, *num2;
 unsigned char *ptr1, *ptr2, *n2ptr, *qptr;
 int  scale1, val;
 unsigned int  len1, len2, scale2, qdigits, extra, count;
 unsigned int  qdig, qguess, borrow, carry;
 unsigned char *mval;
 char zero;
 unsigned int  norm;

 /* Test
 for divide by zero. */
 if (bc_is_zero (n2)) return -1;

 /* Test for divide by 1.  If it is we must truncate. */
 if (n2->n_scale == 0)
   {
    if (n2->n_len == 1 && *n2->n_value == 1)
 {
  qval = bc_new_num (n1->n_len, scale);
  qval->n_sign = (n1->n_sign == n2->n_sign ? PLUS : MINUS);
  memset (&qval->n_value[n1->n_len],0,scale);
  memcpy (qval->n_value, n1->n_value,
   n1->n_len + MIN(n1->n_scale,scale));
  bc_free_num (quot);
  *quot = qval;
 }
   }

 /* Set up the divide.  Move the decimal point on n1 by n2's scale.
    Remember, zeros on the end of num2 are wasted effort for dividing. */
 scale2 = n2->n_scale;
 n2ptr = (unsigned char *) n2->n_value+n2->n_len+scale2-1;
 while ((scale2 > 0) && (*n2ptr-- == 0)) scale2--;
```

```
len1 = n1->n_len + scale2;
scale1 = n1->n_scale - scale2;
if (scale1 < scale)
  extra = scale - scale1;
else
  extra = 0;
num1 = (unsigned char *) malloc (n1->n_len+n1->n_scale+extra+2);
if (num1 == NULL) bc_out_of_memory();

memset (num1, 0, n1->n_len+n1->n_scale+extra+2);
memcpy (num1+1, n1->n_value, n1->n_len+n1->n_scale);

len2 = n2->n_len + scale2;
num2 = (unsigned char *) malloc (len2+1);
if (num2 == NULL) bc_out_of_memory();
memcpy (num2, n2->n_value, len2);
*(num2+len2) = 0;
n2ptr = num2;
while (*n2ptr == 0)
  {
    n2ptr++;
    len2--;
  }

/* Calculate the number of quotient digits. */
if (len2 > len1+scale)
  {
    qdigits = scale+1;
    zero = TRUE;
  }
else
  {
    zero = FALSE;
    if (len2>len1)
qdigits = scale+1;   /* One for the zero integer part. */
    else
qdigits = len1-len2+scale+1;
  }

/* Allocate and zero the storage for the quotient. */
qval = bc_new_num (qdigits-scale,scale);
memset (qval->n_value, 0, qdigits);

/* Allocate storage for the temporary storage mval. */
mval = (unsigned char *) malloc (len2+1);
if (mval == NULL) bc_out_of_memory ();
```

```
/* Now for the full divide algorithm. */
if (!zero)
  {
    /* Normalize
*/
    norm =  10 / ((int)*n2ptr + 1);
    if (norm != 1)
{
  _one_mult (num1, len1+scale1+extra+1, norm, num1);
  _one_mult (n2ptr, len2, norm, n2ptr);
}

    /* Initialize divide loop. */
    qdig = 0;
    if (len2 > len1)
qptr = (unsigned char *) qval->n_value+len2-len1;
    else
qptr = (unsigned char *) qval->n_value;

    /* Loop */
    while (qdig <= len1+scale-len2)
{
  /* Calculate the quotient digit guess. */
  if (*n2ptr == num1[qdig])
    qguess = 9;
  else
    qguess = (num1[qdig]*10 + num1[qdig+1]) / *n2ptr;

  /* Test qguess. */
  if (n2ptr[1]*qguess >
      (num1[qdig]*10 + num1[qdig+1] - *n2ptr*qguess)*10
       + num1[qdig+2])
    {
      qguess--;
      /* And again. */
      if (n2ptr[1]*qguess >
   (num1[qdig]*10 + num1[qdig+1] - *n2ptr*qguess)*10
   + num1[qdig+2])
 qguess--;
    }

  /* Multiply and subtract. */
  borrow = 0;
  if (qguess != 0)
    {
      *mval = 0;
      _one_mult (n2ptr, len2, qguess, mval+1);
```

```
    ptr1 = (unsigned char *) num1+qdig+len2;
     ptr2 = (unsigned char *) mval+len2;
     for (count = 0; count < len2+1; count++)
{
  val = (int) *ptr1 - (int) *ptr2-- - borrow;
  if (val < 0)
    {
      val += 10;
      borrow = 1;
    }
  else
    borrow = 0;
  *ptr1-- = val;
}
   }

 /* Test for negative result. */
 if (borrow == 1)
   {
     qguess--;
     ptr1 = (unsigned char *) num1+qdig+len2;
     ptr2 = (unsigned char *) n2ptr+len2-1;
     carry = 0;
     for (count = 0; count < len2; count++)
{
  val = (int) *ptr1 + (int) *ptr2-- + carry;
  if (val > 9)
    {
      val -= 10;
      carry = 1;
    }
  else
    carry = 0;
  *ptr1-- = val;
}
     if (carry == 1) *ptr1 = (*ptr1 + 1) % 10;
   }

 /* We now know the quotient digit. */
 *qptr++ =  qguess;
 qdig++;
}
 }

/* Clean up and return the number. */
qval->n_sign = ( n1->n_sign == n2->n_sign ? PLUS : MINUS );
if (bc_is_zero (qval)) qval->n_sign
```

```
 = PLUS;
 _bc_rm_leading_zeros (qval);
 bc_free_num (quot);
 *quot = qval;

 /* Clean up temporary storage. */
 free (mval);
 free (num1);
 free (num2);

 return 0; /* Everything is OK. */
}


/* Division *and* modulo for numbers.  This computes both NUM1 / NUM2 and
  NUM1 % NUM2  and puts the results in QUOT and REM, except that if QUOT
  is NULL then that store will be omitted.
*/

int
bc_divmod (num1, num2, quot, rem, scale)
    bc_num num1, num2, *quot, *rem;
    int scale;
{
 bc_num quotient = NULL;
 bc_num temp;
 int rscale;

 /* Check for correct numbers. */
 if (bc_is_zero (num2)) return -1;

 /* Calculate final scale. */
 rscale = MAX (num1->n_scale, num2->n_scale+scale);
 bc_init_num(&temp);

 /* Calculate it. */
 bc_divide (num1, num2, &temp, scale);
 if (quot)
   quotient = bc_copy_num (temp);
 bc_multiply (temp, num2, &temp, rscale);
 bc_sub (num1, temp, rem, rscale);
 bc_free_num (&temp);

 if (quot)
   {
     bc_free_num (quot);
      *quot = quotient;
   }
```

```
 return 0; /* Everything is OK. */
}


/* Modulo for numbers.  This computes NUM1 % NUM2  and puts the
  result in RESULT.   */

int
bc_modulo (num1, num2, result, scale)
    bc_num num1, num2, *result;
    int scale;
{
 return bc_divmod (num1, num2, NULL, result, scale);
}

/* Raise BASE to the EXPO power, reduced modulo MOD.  The result is
  placed in RESULT.  If a EXPO is not an integer,
  only the integer part is used.  */

int
bc_raisemod (base, expo, mod, result, scale)
    bc_num base, expo, mod, *result;
    int scale;
{
 bc_num power, exponent, parity, temp;
 int rscale;

 /* Check for correct numbers. */
 if (bc_is_zero(mod)) return -1;
 if (bc_is_neg(expo)) return -1;

 /* Set initial values.  */
 power = bc_copy_num (base);
 exponent = bc_copy_num (expo);
 temp = bc_copy_num (_one_);
 bc_init_num(&parity);

 /* Check the base for scale digits. */
 if (base->n_scale != 0)
     bc_rt_warn ("non-zero scale in base");

 /* Check
 the exponent for scale digits. */
 if (exponent->n_scale != 0)
   {
     bc_rt_warn ("non-zero scale in exponent");
     bc_divide (exponent, _one_, &exponent, 0); /*truncate */
```

```
  }

 /* Check the modulus for scale digits. */
 if (mod->n_scale != 0)
    bc_rt_warn ("non-zero scale in modulus");

 /* Do the calculation. */
 rscale = MAX(scale, base->n_scale);
 while ( !bc_is_zero(exponent) )
  {
    (void) bc_divmod (exponent, _two_, &exponent, &parity, 0);
    if ( !bc_is_zero(parity) )
 {
  bc_multiply (temp, power, &temp, rscale);
  (void) bc_modulo (temp, mod, &temp, scale);
 }

    bc_multiply (power, power, &power, rscale);
    (void) bc_modulo (power, mod, &power, scale);
  }

 /* Assign the value. */
 bc_free_num (&power);
 bc_free_num (&exponent);
 bc_free_num (result);
 *result = temp;
 return 0; /* Everything is OK. */
}

/* Raise NUM1 to the NUM2 power.  The result is placed in RESULT.
  Maximum exponent is LONG_MAX.  If a NUM2 is not an
 integer,
  only the integer part is used.  */

void
bc_raise (num1, num2, result, scale)
    bc_num num1, num2, *result;
    int scale;
{
  bc_num temp, power;
  long exponent;
  int rscale;
  int pwrscale;
  int calcscale;
  char neg;

  /* Check the exponent for scale digits and convert to a long. */
  if (num2->n_scale != 0)
```

```
  bc_rt_warn ("non-zero scale in exponent");
exponent = bc_num2long (num2);
if (exponent == 0 && (num2->n_len > 1 || num2->n_value[0] != 0))
    bc_rt_error ("exponent too large in raise");

/* Special case if exponent is a zero. */
if (exponent == 0)
  {
    bc_free_num (result);
    *result = bc_copy_num (_one_);
    return;
  }

/* Other initializations. */
if (exponent < 0)
  {
    neg = TRUE;
    exponent = -exponent;
    rscale = scale;
  }
else
  {
    neg = FALSE;
    rscale = MIN (num1->n_scale*exponent, MAX(scale, num1->n_scale));
  }

/* Set initial value of temp.  */
 power = bc_copy_num (num1);
pwrscale = num1->n_scale;
while ((exponent & 1) == 0)
  {
    pwrscale = 2*pwrscale;
    bc_multiply (power, power, &power, pwrscale);
    exponent = exponent >> 1;
  }
temp = bc_copy_num (power);
calcscale = pwrscale;
exponent = exponent >> 1;

/* Do the calculation. */
while (exponent > 0)
  {
    pwrscale = 2*pwrscale;
    bc_multiply (power, power, &power, pwrscale);
    if ((exponent & 1) == 1) {
calcscale = pwrscale + calcscale;
bc_multiply (temp, power, &temp, calcscale);
    }
```

```
      exponent = exponent >> 1;
    }

  /* Assign the value. */
  if (neg)
    {
      bc_divide (_one_, temp, result, rscale);
      bc_free_num (&temp);
    }
  else
    {
      bc_free_num (result);
      *result = temp;
      if ((*result)->n_scale > rscale)
  (*result)->n_scale = rscale;
    }
  bc_free_num (&power);
}

/* Take the square root NUM and return it in NUM with SCALE digits
   after the
  decimal place. */

int
bc_sqrt (num, scale)
     bc_num *num;
     int scale;
{
  int rscale, cmp_res, done;
  int cscale;
  bc_num guess, guess1, point5, diff;

  /* Initial checks. */
  cmp_res = bc_compare (*num, _zero_);
  if (cmp_res < 0)
    return 0;  /* error */
  else
    {
      if (cmp_res == 0)
  {
    bc_free_num (num);
    *num = bc_copy_num (_zero_);
    return 1;
  }
    }
  cmp_res = bc_compare (*num, _one_);
  if (cmp_res == 0)
    {
```

```
    bc_free_num (num);
    *num = bc_copy_num (_one_);
    return 1;
  }

/* Initialize the variables. */
rscale = MAX (scale, (*num)->n_scale);
bc_init_num(&guess);
bc_init_num(&guess1);
bc_init_num(&diff);
point5 = bc_new_num (1,1);
point5->n_value[1] = 5;


/* Calculate the initial guess. */
if (cmp_res < 0)
  {
    /* The number is between 0 and 1.  Guess should start at 1. */
    guess = bc_copy_num (_one_);
    cscale = (*num)->n_scale;
  }
else
  {
    /* The number is greater than 1.  Guess should
start at 10^(exp/2). */
    bc_int2num (&guess,10);

    bc_int2num (&guess1,(*num)->n_len);
    bc_multiply (guess1, point5, &guess1, 0);
    guess1->n_scale = 0;
    bc_raise (guess, guess1, &guess, 0);
    bc_free_num (&guess1);
    cscale = 3;
  }

/* Find the square root using Newton's algorithm. */
done = FALSE;
while (!done)
  {
    bc_free_num (&guess1);
    guess1 = bc_copy_num (guess);
    bc_divide (*num, guess, &guess, cscale);
    bc_add (guess, guess1, &guess, 0);
    bc_multiply (guess, point5, &guess, cscale);
    bc_sub (guess, guess1, &diff, cscale+1);
    if (bc_is_near_zero (diff, cscale))
{
  if (cscale < rscale+1)
```

```
    cscale = MIN (cscale*3, rscale+1);
  else
    done = TRUE;
 }
  }

 /* Assign the number and clean up. */
 bc_free_num (num);
 bc_divide (guess,_one_,num,rscale);
 bc_free_num (&guess);
 bc_free_num (&guess1);
 bc_free_num (&point5);
 bc_free_num (&diff);
 return 1;
}


/* The following routines
 provide output for bcd numbers package
  using the rules of POSIX bc for output. */

/* This structure is used for saving digits in the conversion process. */
typedef struct stk_rec {
 long  digit;
 struct stk_rec *next;
} stk_rec;

/* The reference string for digits. */
static char ref_str[] = "0123456789ABCDEF";


/* A special output routine for "multi-character digits."  Exactly
  SIZE characters must be output for the value VAL.  If SPACE is
  non-zero, we must output one space before the number.  OUT_CHAR
  is the actual routine for writing the characters. */

void
bc_out_long (val, size, space, out_char)
    long val;
    int size, space;
#ifdef __STDC__
    void (*out_char)(int);
#else
    void (*out_char)();
#endif
{
 char digits[40];
 int len, ix;
```

```
 if (space) (*out_char) (' ');
 sprintf (digits, "%ld", val);
 len = strlen (digits);
 while (size > len)
   {
     (*out_char) ('0');
     size--;
   }
 for (ix=0; ix < len; ix++)
   (*out_char) (digits[ix]);
}

/*
 Output of a bcd number.  NUM is written in base O_BASE using OUT_CHAR
  as the routine to do the actual output of the characters. */

void
bc_out_num (num, o_base, out_char, leading_zero)
    bc_num num;
    int o_base;
#ifdef __STDC__
    void (*out_char)(int);
#else
    void (*out_char)();
#endif
    int leading_zero;
{
 char *nptr;
 int  index, fdigit, pre_space;
 stk_rec *digits, *temp;
 bc_num int_part, frac_part, base, cur_dig, t_num, max_o_digit;

 /* The negative sign if needed. */
 if (num->n_sign == MINUS) (*out_char) ('-');

 /* Output the number. */
 if (bc_is_zero (num))
   (*out_char) ('0');
 else
   if (o_base == 10)
     {
 /* The number is in base 10, do it the fast way. */
 nptr = num->n_value;
 if (num->n_len > 1 || *nptr != 0)
   for (index=num->n_len; index>0; index--)
     (*out_char) (BCD_CHAR(*nptr++));
 else
```

```
  nptr++;

if (leading_zero && bc_is_zero (num))
  (*out_char) ('0');

/* Now the fraction. */
if (num->n_scale > 0)
  {

 (*out_char) ('.');
    for (index=0; index<num->n_scale; index++)
      (*out_char) (BCD_CHAR(*nptr++));
  }
    }
  else
    {
/* special case ... */
if (leading_zero && bc_is_zero (num))
  (*out_char) ('0');

/* The number is some other base. */
digits = NULL;
bc_init_num (&int_part);
bc_divide (num, _one_, &int_part, 0);
bc_init_num (&frac_part);
bc_init_num (&cur_dig);
bc_init_num (&base);
bc_sub (num, int_part, &frac_part, 0);
/* Make the INT_PART and FRAC_PART positive. */
int_part->n_sign = PLUS;
frac_part->n_sign = PLUS;
bc_int2num (&base, o_base);
bc_init_num (&max_o_digit);
bc_int2num (&max_o_digit, o_base-1);


/* Get the digits of the integer part and push them on a stack. */
while (!bc_is_zero (int_part))
  {
    bc_modulo (int_part, base, &cur_dig, 0);
    temp = (stk_rec *) malloc (sizeof(stk_rec));
    if (temp == NULL) bc_out_of_memory();
    temp->digit = bc_num2long (cur_dig);
    temp->next = digits;
    digits = temp;
    bc_divide
(int_part, base, &int_part, 0);
  }
```

```
/* Print the digits on the stack. */
if (digits != NULL)
  {
    /* Output the digits. */
    while (digits != NULL)
      {
 temp = digits;
 digits = digits->next;
 if (o_base <= 16)
   (*out_char) (ref_str[ (int) temp->digit]);
 else
   bc_out_long (temp->digit, max_o_digit->n_len, 1, out_char);
 free (temp);
      }
  }

/* Get and print the digits of the fraction part. */
if (num->n_scale > 0)
  {
    (*out_char) ('.');
    pre_space = 0;
    t_num = bc_copy_num (_one_);
    while (t_num->n_len <= num->n_scale) {
      bc_multiply (frac_part, base, &frac_part, num->n_scale);
      fdigit = bc_num2long (frac_part);
      bc_int2num (&int_part, fdigit);
      bc_sub (frac_part, int_part, &frac_part, 0);
      if (o_base <= 16)
 (*out_char) (ref_str[fdigit]);
      else {
 bc_out_long (fdigit, max_o_digit->n_len, pre_space, out_char);
 pre_space = 1;
      }
      bc_multiply (t_num, base, &t_num, 0);
    }

   bc_free_num (&t_num);
  }

/* Clean up. */
bc_free_num (&int_part);
bc_free_num (&frac_part);
bc_free_num (&base);
bc_free_num (&cur_dig);
bc_free_num (&max_o_digit);
    }
}
```

```
/* Convert a number NUM to a long.  The function returns only the integer
  part of the number.  For numbers that are too large to represent as
  a long, this function returns a zero.  This can be detected by checking
  the NUM for zero after having a zero returned. */

long
bc_num2long (num)
    bc_num num;
{
 long val;
 char *nptr;
 int  index;

 /* Extract the int value, ignore the fraction. */
 val = 0;
 nptr = num->n_value;
 for (index=num->n_len; (index>0) && (val<=(LONG_MAX/BASE)); index--)
   val = val*BASE + *nptr++;

 /* Check for overflow.  If overflow, return zero. */
 if (index>0) val = 0;
 if (val < 0) val = 0;

 /* Return the value. */
 if (num->n_sign == PLUS)
   return (val);
 else
   return (-val);
}


/* Convert an integer VAL to a bc number NUM. */

void
bc_int2num
 (num, val)
    bc_num *num;
    int val;
{
 char buffer[30];
 char *bptr, *vptr;
 int  ix = 1;
 char neg = 0;

 /* Sign. */
 if (val < 0)
   {
     neg = 1;
```

```
    val = -val;
  }

 /* Get things going. */
 bptr = buffer;
 *bptr++ = val % BASE;
 val = val / BASE;

 /* Extract remaining digits. */
 while (val != 0)
  {
    *bptr++ = val % BASE;
    val = val / BASE;
    ix++;   /* Count the digits. */
  }

 /* Make the number. */
 bc_free_num (num);
 *num = bc_new_num (ix, 0);
 if (neg) (*num)->n_sign = MINUS;

 /* Assign the digits. */
 vptr = (*num)->n_value;
 while (ix-- > 0)
   *vptr++ = *--bptr;
}

/* Convert a numbers to a string.  Base 10 only.*/

char
*num2str (num)
     bc_num num;
{
 char *str, *sptr;
 char *nptr;
 int  index, signch;

 /* Allocate the string memory. */
 signch = ( num->n_sign == PLUS ? 0 : 1 );  /* Number of sign chars. */
 if (num->n_scale > 0)
   str = (char *) malloc (num->n_len + num->n_scale + 2 + signch);

 else
   str = (char *) malloc (num->n_len + 1 + signch);
 if (str == NULL) bc_out_of_memory();

 /* The negative sign if needed. */
 sptr = str;
```

```
 if (signch) *sptr++ = '-';

 /* Load the whole number. */
 nptr = num->n_value;
 for (index=num->n_len; index>0; index--)
   *sptr++ = BCD_CHAR(*nptr++);

 /* Now the fraction. */
 if (num->n_scale > 0)
   {
     *sptr++ = '.';
     for (index=0; index<num->n_scale; index++)
 *sptr++ = BCD_CHAR(*nptr++);
   }

 /* Terminate the string and return it! */
 *sptr = '\0';
 return (str);
}
/* Convert strings to bc numbers.  Base 10 only.*/

void
bc_str2num (num, str, scale)
    bc_num *num;
    char *str;
    int scale;
{
 int digits, strscale;
 char *ptr, *nptr;
 char zero_int;

 /* Prepare num. */
 bc_free_num (num);

 /* Check for valid number and count digits. */
 ptr = str;
 digits = 0;
 strscale = 0;
 zero_int = FALSE;
 if ( (*ptr == '+') || (*ptr == '-'))  ptr++;  /* Sign */
 while (*ptr == '0') ptr++;   /* Skip
 leading zeros. */
 while (isdigit((int)*ptr)) ptr++, digits++; /* digits */
 if (*ptr == '.') ptr++;   /* decimal point */
 while (isdigit((int)*ptr)) ptr++, strscale++; /* digits */
 if ((*ptr != '\0') || (digits+strscale == 0))
   {
     *num = bc_copy_num (_zero_);
```

```
    return;
  }

 /* Adjust numbers and allocate storage and initialize fields. */
 strscale = MIN(strscale, scale);
 if (digits == 0)
  {
    zero_int = TRUE;
    digits = 1;
  }
 *num = bc_new_num (digits, strscale);

 /* Build the whole number. */
 ptr = str;
 if (*ptr == '-')
  {
    (*num)->n_sign = MINUS;
    ptr++;
  }
 else
  {
    (*num)->n_sign = PLUS;
    if (*ptr == '+') ptr++;
  }
 while (*ptr == '0') ptr++;   /* Skip leading zeros. */
 nptr = (*num)->n_value;
 if (zero_int)
  {
    *nptr++ = 0;
    digits = 0;
  }
 for (;digits > 0; digits--)
  *nptr++ = CH_VAL(*ptr++);


 /* Build the fractional part. */
 if (strscale > 0)
  {
    ptr++;  /*
 skip the decimal point! */
    for (;strscale > 0; strscale--)
 *nptr++ = CH_VAL(*ptr++);
  }
}

/* pn prints the number NUM in base 10. */

static void
```

```
out_char (int c)
{
 putchar(c);
}


void
pn (num)
   bc_num num;
{
 bc_out_num (num, 10, out_char, 0);
 out_char ('\n');
}


/* pv prints a character array as if it was a string of bcd digits. */
void
pv (name, num, len)
   char *name;
   unsigned char *num;
   int len;
{
 int i;
 printf ("%s=", name);
 for (i=0; i<len; i++) printf ("%c",BCD_CHAR(num[i]));
 printf ("\n");
}
```

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1.38 diffutils 3.6

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1.42 open-ldap 2.4.46

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1.43 zlib 1.2.11

1.43.1 Available under license :

/* zlib.h -- interface of the 'zlib' general purpose compression library
version 1.2.11, January 15th, 2017

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Jean-loup Gailly Mark Adler
jloup@gzip.org madler@alumni.caltech.edu

The data format used by the zlib library is described by RFCs (Request for
Comments) 1950 to 1952 in the files http://tools.ietf.org/html/rfc1950
(zlib format), rfc1951 (deflate format) and rfc1952 (gzip format).
*/

1.44 glibc 2.28

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@item
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it
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Whether this is true is especially significant if the work can be
linked without the Library, or if the work is itself a library. The
threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data
structure layouts and accessors, and small macros and small inline
functions (ten lines or less in length), then the use of the object
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if the work is a derivative of the Library, you may
distribute the object code for the work under the terms of Section 6.
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whether or not they are linked directly with the Library itself.

@item
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@enumerate a
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with the Library, with the complete machine-readable ``work that
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@item
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and (2) will operate
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1.46 berkeley-db 6.0.30

1.46.1 Available under license :

/*-
* $Id: LICENSE,v 11.12 2004/03/30 20:49:44 bostic Exp $
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*
* $Id$
*/

#include "db_config.h"
```

```
#include
 "db_int.h"
#include "dbinc/blob.h"
#include "dbinc/crypto.h"
#include "dbinc/db_page.h"
#include "dbinc/db_swap.h"
#include "dbinc/btree.h"
#include "dbinc/lock.h"
#include "dbinc/mp.h"
#include "dbinc/partition.h"
#include "dbinc/fop.h"

static void __bam_init_meta __P((DB *, BTMETA *, db_pgno_t, DB_LSN *));

/*
* __bam_open --
* Open a btree.
*
* PUBLIC: int __bam_open __P((DB *, DB_THREAD_INFO *,
* PUBLIC:      DB_TXN *, const char *, db_pgno_t, u_int32_t));
*/
int
__bam_open(dbp, ip, txn, name, base_pgno, flags)
 DB *dbp;
 DB_THREAD_INFO *ip;
 DB_TXN *txn;
 const char *name;
 db_pgno_t base_pgno;
 u_int32_t flags;
{
 BTREE *t;

 COMPQUIET(name, NULL);
 t = dbp->bt_internal;

 /*
  * We don't permit the user to specify a prefix routine if they didn't
  * also specify a comparison routine, they can't know enough about our
  * comparison routine to get it right.
  */
 if (t->bt_compare == __bam_defcmp && t->bt_prefix != __bam_defpfx)
 {
  __db_errx(dbp->env, DB_STR("1006",
"prefix comparison may not be specified for default comparison routine"));
  return (EINVAL);
 }
```

```
/*
 * Verify that the bt_minkey value specified won't cause the
 * calculation of ovflsize to underflow [#2406] for this pagesize.
 */
if (B_MINKEY_TO_OVFLSIZE(dbp, t->bt_minkey, dbp->pgsize) >
    B_MINKEY_TO_OVFLSIZE(dbp, DEFMINKEYPAGE, dbp->pgsize)) {
 __db_errx(dbp->env, DB_STR_A("1007",
     "bt_minkey value of %lu too high for page size of %lu",
     "%lu %lu"), (u_long)t->bt_minkey, (u_long)dbp->pgsize);
 return (EINVAL);
}

/* Start up the tree. */
return (__bam_read_root(dbp, ip, txn, base_pgno, flags));
}

/*
* __bam_metachk --
*
* PUBLIC: int __bam_metachk __P((DB *, const char *, BTMETA *));
*/
int
__bam_metachk(dbp, name, btm)
 DB *dbp;
 const char *name;
 BTMETA *btm;
{
 ENV *env;
 u_int32_t vers;
 int ret;

 env = dbp->env;
 ret = 0;

 /*
  * At this point, all we know
 is that the magic number is for a Btree.
  * Check the version, the database may be out of date.
  */
 vers = btm->dbmeta.version;
 if (F_ISSET(dbp, DB_AM_SWAP))
  M_32_SWAP(vers);
 switch (vers) {
 case 6:
 case 7:
  __db_errx(env, DB_STR_A("1008",
     "%s: btree version %lu requires a version upgrade",
     "%s %lu"), name, (u_long)vers);
```

```
 return (DB_OLD_VERSION);
case 8:
case 9:
case 10:
 break;
default:
 __db_errx(env, DB_STR_A("1009",
    "%s: unsupported btree version: %lu", "%s %lu"),
    name, (u_long)vers);
 return (EINVAL);
}

/* Swap the page if we need to. */
if (F_ISSET(dbp, DB_AM_SWAP) &&
   (ret = __bam_mswap(env, (PAGE *)btm)) != 0)
 return (ret);

/*
 * Check application info against metadata info, and set info, flags,
 * and type based on metadata info.
 */
if ((ret =
   __db_fchk(env, "DB->open", btm->dbmeta.flags, BTM_MASK)) != 0)
 return (ret);

if (F_ISSET(&btm->dbmeta, BTM_RECNO)) {
 if (dbp->type
== DB_BTREE)
  goto wrong_type;
 dbp->type = DB_RECNO;
 DB_ILLEGAL_METHOD(dbp, DB_OK_RECNO);
} else {
 if (dbp->type == DB_RECNO)
  goto wrong_type;
 dbp->type = DB_BTREE;
 DB_ILLEGAL_METHOD(dbp, DB_OK_BTREE);
}

if (F_ISSET(&btm->dbmeta, BTM_DUP))
 F_SET(dbp, DB_AM_DUP);
else
 if (F_ISSET(dbp, DB_AM_DUP)) {
  __db_errx(env, DB_STR_A("1010",
 "%s: DB_DUP specified to open method but not set in database",
      "%s"), name);
  return (EINVAL);
 }
```

```
if (F_ISSET(&btm->dbmeta, BTM_RECNUM)) {
 if (dbp->type != DB_BTREE)
  goto wrong_type;
 F_SET(dbp, DB_AM_RECNUM);

 if ((ret = __db_fcchk(env,
     "DB->open", dbp->flags, DB_AM_DUP, DB_AM_RECNUM)) != 0)
  return (ret);
} else
 if (F_ISSET(dbp, DB_AM_RECNUM)) {
  __db_errx(env, DB_STR_A("1011",
    "%s: DB_RECNUM specified to open method but not set in database",
      "%s"), name);
  return (EINVAL);
 }

if (F_ISSET(&btm->dbmeta, BTM_FIXEDLEN)) {
 if (dbp->type != DB_RECNO)
  goto
wrong_type;
 F_SET(dbp, DB_AM_FIXEDLEN);
} else
 if (F_ISSET(dbp, DB_AM_FIXEDLEN)) {
  __db_errx(env, DB_STR_A("1012",
"%s: DB_FIXEDLEN specified to open method but not set in database",
  "%s"), name);
  return (EINVAL);
 }

if (F_ISSET(&btm->dbmeta, BTM_RENUMBER)) {
 if (dbp->type != DB_RECNO)
  goto wrong_type;
 F_SET(dbp, DB_AM_RENUMBER);
} else
 if (F_ISSET(dbp, DB_AM_RENUMBER)) {
  __db_errx(env, DB_STR_A("1013",
    "%s: DB_RENUMBER specified to open method but not set in database",
      "%s"), name);
  return (EINVAL);
 }

if (F_ISSET(&btm->dbmeta, BTM_SUBDB))
 F_SET(dbp, DB_AM_SUBDB);
else
 if (F_ISSET(dbp, DB_AM_SUBDB)) {
  __db_errx(env, DB_STR_A("1014",
    "%s: multiple databases specified but not supported by file",
      "%s"), name);
```

```
  return (EINVAL);
 }

 if (F_ISSET(&btm->dbmeta, BTM_DUPSORT)) {
  if (dbp->dup_compare == NULL)
   dbp->dup_compare = __bam_defcmp;
  F_SET(dbp, DB_AM_DUPSORT);
 }
 else
  if (dbp->dup_compare != NULL) {
   __db_errx(env, DB_STR_A("1015",
  "%s: duplicate sort specified but not supported in database",
       "%s"), name);
   return (EINVAL);
  }

#ifdef HAVE_COMPRESSION
 if (F_ISSET(&btm->dbmeta, BTM_COMPRESS)) {
  F_SET(dbp, DB_AM_COMPRESS);
  if ((BTREE *)dbp->bt_internal != NULL &&
      !DB_IS_COMPRESSED(dbp) &&
      (ret = __bam_set_bt_compress(dbp, NULL, NULL)) != 0)
   return (ret);
 } else {
  if ((BTREE *)dbp->bt_internal != NULL &&
      DB_IS_COMPRESSED(dbp)) {
   __db_errx(env, DB_STR_A("1016",
 "%s: compresssion specified to open method but not set in database",
       "%s"), name);
   return (EINVAL);
  }
 }
#else
 if (F_ISSET(&btm->dbmeta, BTM_COMPRESS)) {
  __db_errx(env, DB_STR_A("1017",
      "%s: compression support has not been compiled in", "%s"),
      name);
  return (EINVAL);
 }
#endif

 /* Set the page size. */
 dbp->pgsize = btm->dbmeta.pagesize;

 dbp->blob_threshold = btm->blob_threshold;
 GET_BLOB_FILE_ID(env,
 btm, dbp->blob_file_id, ret);
 if (ret != 0)
```

```
 return (ret);
 GET_BLOB_SDB_ID(env, btm, dbp->blob_sdb_id, ret);
 if (ret != 0)
  return (ret);
 /* Blob databases must be upgraded. */
 if (vers == 9 && (dbp->blob_file_id != 0 || dbp->blob_sdb_id != 0)) {
     __db_errx(env, DB_STR_A("1207",
"%s: databases that support blobs must be upgraded.", "%s"),
      name);
  return (EINVAL);
 }
#ifndef HAVE_64BIT_TYPES
 if (dbp->blob_file_id != 0 || dbp->blob_sdb_id != 0) {
  __db_errx(env, DB_STR_A("1199",
      "%s: blobs require 64 integer compiler support.", "%s"),
      name);
  return (EINVAL);
 }
#endif

 /* Copy the file's ID. */
 memcpy(dbp->fileid, btm->dbmeta.uid, DB_FILE_ID_LEN);

 return (0);

wrong_type:
 if (dbp->type == DB_BTREE)
  __db_errx(env, DB_STR("1018",
      "open method type is Btree, database type is Recno"));
 else
  __db_errx(env, DB_STR("1019",
      "open method type is Recno, database type is Btree"));
 return
 (EINVAL);
}

/*
* __bam_read_root --
* Read the root page and check a tree.
*
* PUBLIC: int __bam_read_root __P((DB *,
* PUBLIC:      DB_THREAD_INFO *, DB_TXN *, db_pgno_t, u_int32_t));
*/
int
__bam_read_root(dbp, ip, txn, base_pgno, flags)
 DB *dbp;
 DB_THREAD_INFO *ip;
 DB_TXN *txn;
```

```
db_pgno_t base_pgno;
u_int32_t flags;
{
BTMETA *meta;
BTREE *t;
DBC *dbc;
DB_LOCK metalock;
DB_MPOOLFILE *mpf;
int ret, t_ret;

COMPQUIET(flags, 0);

meta = NULL;
t = dbp->bt_internal;
LOCK_INIT(metalock);
mpf = dbp->mpf;
ret = 0;

/* Get a cursor.  */
if ((ret = __db_cursor(dbp, ip, txn, &dbc,
   F_ISSET(dbp, DB_AM_RECOVER) ? DB_RECOVER : 0)) != 0)
 return (ret);

/* Get the metadata page. */
if ((ret =
   __db_lget(dbc, 0, base_pgno, DB_LOCK_READ, 0, &metalock)) != 0)
 goto err;
if ((ret = __memp_fget(mpf, &base_pgno, ip, dbc->txn, 0, &meta)) != 0)
 goto err;

/*
 * If the magic number is set, the tree has been
created.  Correct
 * any fields that may not be right.  Note, all of the local flags
 * were set by DB->open.
 *
 * Otherwise, we'd better be in recovery or abort, in which case the
 * metadata page will be created/initialized elsewhere.
 *
 * Ignore the last_pgno on the metadata page for snapshot transactions:
 * we may be reading an old version of the page, and we've already
 * set last_pgno from the file size.  The only time this would matter
 * is if we don't have ftruncate and there are some free pages at the
 * end of the file: we could end up with holes.
 */
if (meta->dbmeta.magic == DB_BTREEMAGIC) {
 t->bt_minkey = meta->minkey;
 t->re_pad = (int)meta->re_pad;
```

```
 t->re_len = meta->re_len;

 t->bt_meta = base_pgno;
 t->bt_root = meta->root;
 t->revision = dbp->mpf->mfp->revision;
 if (PGNO(meta) == PGNO_BASE_MD &&
     !F_ISSET(dbp, DB_AM_RECOVER) &&
     (txn == NULL || !F_ISSET(txn, TXN_SNAPSHOT)) && (ret =
     __memp_set_last_pgno(mpf,
meta->dbmeta.last_pgno)) != 0)
  goto err;
} else {
 DB_ASSERT(dbp->env,
     IS_RECOVERING(dbp->env) || F_ISSET(dbp, DB_AM_RECOVER));
}

/*
 * !!!
 * If creating a subdatabase, we've already done an insert when
 * we put the subdatabase's entry into the master database, so
 * our last-page-inserted value is wrongly initialized for the
 * master database, not the subdatabase we're creating.  I'm not
 * sure where the *right* place to clear this value is, it's not
 * intuitively obvious that it belongs here.
 */
t->bt_lpgno = PGNO_INVALID;

err: /* Put the metadata page back. */
 if (meta != NULL && (t_ret = __memp_fput(mpf,
     ip, meta, dbc->priority)) != 0 && ret == 0)
  ret = t_ret;
 if ((t_ret = __LPUT(dbc, metalock)) != 0 && ret == 0)
  ret = t_ret;

 if ((t_ret = __dbc_close(dbc)) != 0 && ret == 0)
  ret = t_ret;
 return (ret);
}

/*
* __bam_init_meta --
*
* Initialize a btree meta-data page.  The following fields may
 need
* to be updated later: last_pgno, root.
*/
static void
__bam_init_meta(dbp, meta, pgno, lsnp)
```

```
 DB *dbp;
 BTMETA *meta;
 db_pgno_t pgno;
 DB_LSN *lsnp;
{
 BTREE *t;
#ifdef HAVE_PARTITION
 DB_PARTITION *part;
#endif
 ENV *env;

 env = dbp->env;
 t = dbp->bt_internal;

 memset(meta, 0, sizeof(BTMETA));
 meta->dbmeta.lsn = *lsnp;
 meta->dbmeta.pgno = pgno;
 meta->dbmeta.magic = DB_BTREEMAGIC;
 meta->dbmeta.version = DB_BTREEVERSION;
 meta->dbmeta.pagesize = dbp->pgsize;
 if (F_ISSET(dbp, DB_AM_CHKSUM))
  FLD_SET(meta->dbmeta.metaflags, DBMETA_CHKSUM);
 if (F_ISSET(dbp, DB_AM_ENCRYPT)) {
  meta->dbmeta.encrypt_alg = env->crypto_handle->alg;
  DB_ASSERT(env, meta->dbmeta.encrypt_alg != 0);
  meta->crypto_magic = meta->dbmeta.magic;
 }
 meta->dbmeta.type = P_BTREEMETA;
 meta->dbmeta.free = PGNO_INVALID;
 meta->dbmeta.last_pgno = pgno;
 if (F_ISSET(dbp, DB_AM_DUP))
  F_SET(&meta->dbmeta, BTM_DUP);
 if (F_ISSET(dbp, DB_AM_FIXEDLEN))
  F_SET(&meta->dbmeta,
 BTM_FIXEDLEN);
 if (F_ISSET(dbp, DB_AM_RECNUM))
  F_SET(&meta->dbmeta, BTM_RECNUM);
 if (F_ISSET(dbp, DB_AM_RENUMBER))
  F_SET(&meta->dbmeta, BTM_RENUMBER);
 if (F_ISSET(dbp, DB_AM_SUBDB))
  F_SET(&meta->dbmeta, BTM_SUBDB);
 if (dbp->dup_compare != NULL)
  F_SET(&meta->dbmeta, BTM_DUPSORT);
#ifdef HAVE_COMPRESSION
 if (DB_IS_COMPRESSED(dbp))
  F_SET(&meta->dbmeta, BTM_COMPRESS);
#endif
 if (dbp->type == DB_RECNO)
```

```
 F_SET(&meta->dbmeta, BTM_RECNO);
 memcpy(meta->dbmeta.uid, dbp->fileid, DB_FILE_ID_LEN);

 meta->minkey = t->bt_minkey;
 meta->re_len = t->re_len;
 meta->re_pad = (u_int32_t)t->re_pad;
 meta->blob_threshold = dbp->blob_threshold;
 SET_BLOB_META_FILE_ID(meta, dbp->blob_file_id, BTMETA);
 SET_BLOB_META_SDB_ID(meta, dbp->blob_sdb_id, BTMETA);

#ifdef HAVE_PARTITION
 if ((part = dbp->p_internal) != NULL) {
  meta->dbmeta.nparts = part->nparts;
  if (F_ISSET(part, PART_CALLBACK))
   FLD_SET(meta->dbmeta.metaflags, DBMETA_PART_CALLBACK);
  if (F_ISSET(part,
 PART_RANGE))
   FLD_SET(meta->dbmeta.metaflags, DBMETA_PART_RANGE);
 }
#endif
}

/*
* __bam_new_file --
* Create the necessary pages to begin a new database file.
*
* This code appears more complex than it is because of the two cases (named
* and unnamed).  The way to read the code is that for each page being created,
* there are three parts: 1) a "get page" chunk (which either uses malloc'd
* memory or calls __memp_fget), 2) the initialization, and 3) the "put page"
* chunk which either does a fop write or an __memp_fput.
*
* PUBLIC: int __bam_new_file __P((DB *,
* PUBLIC:      DB_THREAD_INFO *, DB_TXN *, DB_FH *, const char *));
*/
int
__bam_new_file(dbp, ip, txn, fhp, name)
 DB *dbp;
 DB_THREAD_INFO *ip;
 DB_TXN *txn;
 DB_FH *fhp;
 const char *name;
{
 BTMETA *meta;
 DBT pdbt;
 DB_LSN lsn;
 DB_MPOOLFILE *mpf;
 DB_PGINFO pginfo;
```

```
ENV *env;
PAGE *root;
db_pgno_t pgno;
int ret, t_ret;
void *buf;

env = dbp->env;
mpf =
dbp->mpf;
root = NULL;
meta = NULL;
buf = NULL;

if (F_ISSET(dbp, DB_AM_INMEM)) {
 /* Build the meta-data page. */
 pgno = PGNO_BASE_MD;
 if ((ret = __memp_fget(mpf, &pgno,
    ip, txn, DB_MPOOL_CREATE | DB_MPOOL_DIRTY, &meta)) != 0)
  return (ret);
 LSN_NOT_LOGGED(lsn);
 __bam_init_meta(dbp, meta, PGNO_BASE_MD, &lsn);
 meta->root = 1;
 meta->dbmeta.last_pgno = 1;
 if ((ret =
    __db_log_page(dbp, txn, &lsn, pgno, (PAGE *)meta)) != 0)
  goto err;
 ret = __memp_fput(mpf, ip, meta, dbp->priority);
 meta = NULL;
 if (ret != 0)
  goto err;

 /* Build the root page. */
 pgno = 1;
 if ((ret = __memp_fget(mpf, &pgno,
    ip, txn, DB_MPOOL_CREATE | DB_MPOOL_DIRTY, &root)) != 0)
  goto err;
 P_INIT(root, dbp->pgsize, 1, PGNO_INVALID, PGNO_INVALID,
    LEAFLEVEL, dbp->type == DB_RECNO ? P_LRECNO : P_LBTREE);
 LSN_NOT_LOGGED(root->lsn);
 if ((ret =
    __db_log_page(dbp, txn, &root->lsn, pgno, root)) != 0)
  goto err;
 ret =
__memp_fput(mpf, ip, root, dbp->priority);
 root = NULL;
 if (ret != 0)
  goto err;
} else {
```

```
  memset(&pdbt, 0, sizeof(pdbt));

  /* Build the meta-data page. */
  pginfo.db_pagesize = dbp->pgsize;
  pginfo.flags =
      F_ISSET(dbp, (DB_AM_CHKSUM | DB_AM_ENCRYPT | DB_AM_SWAP));
  pginfo.type = dbp->type;
  pdbt.data = &pginfo;
  pdbt.size = sizeof(pginfo);
  if (dbp->blob_threshold) {
   if ((ret = __blob_generate_dir_ids(dbp, txn,
       &dbp->blob_file_id)) != 0)
    return (ret);

  }
  if ((ret = __os_calloc(env, 1, dbp->pgsize, &buf)) != 0)
   return (ret);
  meta = (BTMETA *)buf;
  LSN_NOT_LOGGED(lsn);
  __bam_init_meta(dbp, meta, PGNO_BASE_MD, &lsn);
  meta->root = 1;
  meta->dbmeta.last_pgno = 1;
  if ((ret = __db_pgout(
      dbp->dbenv, PGNO_BASE_MD, meta, &pdbt)) != 0)
   goto err;
  if ((ret = __fop_write(env, txn, name, dbp->dirname,
      DB_APP_DATA, fhp,
      dbp->pgsize, 0, 0, buf, dbp->pgsize, 1, F_ISSET(
      dbp, DB_AM_NOT_DURABLE)
 ? DB_LOG_NOT_DURABLE : 0)) != 0)
   goto err;
  meta = NULL;

  /* Build the root page. */
#ifdef DIAGNOSTIC
  memset(buf, CLEAR_BYTE, dbp->pgsize);
#endif
  root = (PAGE *)buf;
  P_INIT(root, dbp->pgsize, 1, PGNO_INVALID, PGNO_INVALID,
      LEAFLEVEL, dbp->type == DB_RECNO ? P_LRECNO : P_LBTREE);
  LSN_NOT_LOGGED(root->lsn);
  if ((ret =
      __db_pgout(dbp->dbenv, root->pgno, root, &pdbt)) != 0)
   goto err;
  if ((ret =
      __fop_write(env, txn, name, dbp->dirname, DB_APP_DATA,
      fhp, dbp->pgsize, 1, 0, buf, dbp->pgsize, 1, F_ISSET(
      dbp, DB_AM_NOT_DURABLE) ? DB_LOG_NOT_DURABLE : 0)) != 0)
```

```
  goto err;
 root = NULL;
 }

err: if (buf != NULL)
  __os_free(env, buf);
 else {
  if (meta != NULL &&
      (t_ret = __memp_fput(mpf, ip,
      meta, dbp->priority)) != 0 && ret == 0)
   ret = t_ret;
  if (root != NULL &&
      (t_ret = __memp_fput(mpf, ip,
      root, dbp->priority)) != 0 && ret == 0)
   ret = t_ret;
 }
 return (ret);
}

/*
 * __bam_new_subdb --
* Create a metadata page and a root page for a new btree.
*
* PUBLIC: int __bam_new_subdb __P((DB *, DB *, DB_THREAD_INFO *, DB_TXN *));
*/
int
__bam_new_subdb(mdbp, dbp, ip, txn)
 DB *mdbp, *dbp;
 DB_THREAD_INFO *ip;
 DB_TXN *txn;
{
 BTMETA *meta;
 DBC *dbc;
 DB_LOCK metalock;
 DB_LSN lsn;
 DB_MPOOLFILE *mpf;
 ENV *env;
 PAGE *root;
 int ret, t_ret;

 env = mdbp->env;
 mpf = mdbp->mpf;
 dbc = NULL;
 meta = NULL;
 root = NULL;

 if (dbp->blob_threshold) {
  if ((ret = __blob_generate_dir_ids(dbp, txn,
```

```
    &dbp->blob_sdb_id)) != 0)
  return (ret);
 }

 if ((ret = __db_cursor(mdbp, ip, txn,
    &dbc, CDB_LOCKING(env) ?  DB_WRITECURSOR : 0)) != 0)
  return (ret);

 /* Get, and optionally create the metadata page. */
 if ((ret = __db_lget(dbc,
    0, dbp->meta_pgno, DB_LOCK_WRITE, 0, &metalock)) != 0)
  goto err;
 if ((ret = __memp_fget(mpf, &dbp->meta_pgno,
    ip, txn, DB_MPOOL_CREATE | DB_MPOOL_DIRTY, &meta))
 != 0)
  goto err;

 /* Build meta-data page. */
 lsn = meta->dbmeta.lsn;
 __bam_init_meta(dbp, meta, dbp->meta_pgno, &lsn);
 if ((ret = __db_log_page(mdbp,
    txn, &meta->dbmeta.lsn, dbp->meta_pgno, (PAGE *)meta)) != 0)
  goto err;

 /* Create and initialize a root page. */
 if ((ret = __db_new(dbc,
    dbp->type == DB_RECNO ? P_LRECNO : P_LBTREE, NULL, &root)) != 0)
  goto err;
 root->level = LEAFLEVEL;

 if (DBENV_LOGGING(env) &&
#if !defined(DEBUG_WOP)
    txn != NULL &&
#endif

    (ret = __bam_root_log(mdbp, txn, &meta->dbmeta.lsn, 0,
    meta->dbmeta.pgno, root->pgno, &meta->dbmeta.lsn)) != 0)
  goto err;

 meta->root = root->pgno;
 if ((ret =
    __db_log_page(mdbp, txn, &root->lsn, root->pgno, root)) != 0)
  goto err;

 /* Release the metadata and root pages. */
 if ((ret = __memp_fput(mpf, ip, meta, dbc->priority)) != 0)
  goto err;
 meta = NULL;
```

```
 if ((ret = __memp_fput(mpf, ip, root, dbc->priority)) != 0)
  goto err;
 root = NULL;
err:
 if
 (meta != NULL)
  if ((t_ret = __memp_fput(mpf, ip,
  meta, dbc->priority)) != 0 && ret == 0)
   ret = t_ret;
 if (root != NULL)
  if ((t_ret = __memp_fput(mpf, ip,
  root, dbc->priority)) != 0 && ret == 0)
   ret = t_ret;
 if ((t_ret = __LPUT(dbc, metalock)) != 0 && ret == 0)
  ret = t_ret;
 if (dbc != NULL)
  if ((t_ret = __dbc_close(dbc)) != 0 && ret == 0)
   ret = t_ret;
 return (ret);
}
```

1.47 cpio 2.11

1.47.1 Available under license :

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++++++++++++++++

Dean Elsner wrote the original gas for vax. [more details?]

Jay Fenlason maintained gas for a while, adding support for
gdb-specific debug information and the 68k series machines, most of
the preprocessing pass, and extensive changes in messages.c,
input-file.c, write.c.

K. Richard Pixley maintained gas for a while, adding various
enhancements and many bug fixes, including merging support for several

processors, breaking gas up to handle multiple object file format backends (including heavy rewrite, testing, an integration of the coff and b.out backends), adding configuration
including heavy testing and
verification of cross assemblers and file splits and renaming, converted gas to strictly ansi C including full prototypes, added support for m680[34]0 & cpu32, considerable work on i960 including a coff port (including considerable amounts of reverse engineering), a sparc opcode file rewrite, decstation, rs6000, and hp300hpux host ports, updated "know" assertions and made them work, much other reorganization, cleanup, and lint.

Ken Raeburn wrote the high-level BFD interface code to replace most of the code in format-specific I/O modules.

The original Vax-VMS support was contributed by David L. Kashtan. Eric Youngdale and Pat Rankin have done much work with it since.

The Intel 80386 machine description was written by Eliot Dresselhaus.

Minh Tran-Le at IntelliCorp contributed some AIX 386 support.

The Motorola 88k machine description was contributed by Devon Bowen of Buffalo University and Torbjorn Granlund of the Swedish Institute of Computer Science.

Keith
Knowles at the Open Software Foundation wrote the original MIPS back end (tc-mips.c, tc-mips.h), and contributed Rose format support that hasn't been merged in yet. Ralph Campbell worked with the MIPS code to support a.out format.

Support for the Zilog Z8k and Hitachi H8/300, H8/500 and SH processors (tc-z8k, tc-h8300, tc-h8500, tc-sh), and IEEE 695 object file format (obj-ieee), was written by Steve Chamberlain of Cygnus Solutions. Steve also modified the COFF back end (obj-coffbfd) to use BFD for some low-level operations, for use with the Hitachi, 29k and Zilog targets.

John Gilmore built the AMD 29000 support, added .include support, and simplified the configuration of which versions accept which pseudo-ops. He updated the 68k machine description so that Motorola's opcodes always produced fixed-size instructions (e.g. jsr), while synthetic instructions remained shrinkable (jbsr). John fixed many bugs, including true tested cross-compilation support, and one bug in relaxation
that took a week and required the proverbial one-bit fix.

Ian Lance Taylor of Cygnus Solutions merged the Motorola and MIT syntaxes for the 68k, completed support for some COFF targets (68k, i386 SVR3, and SCO Unix), wrote the ECOFF support based on Michael Meissner's mips-tfile program, wrote the PowerPC and RS/6000 support, and made a few other minor patches. He handled the binutils releases for versions 2.7 through 2.9.

David Edelsohn contributed fixes for the PowerPC and AIX support.

Steve Chamberlain made gas able to generate listings.

Support for the HP9000/300 was contributed by Glenn Engel of HP.

Support for ELF format files has been worked on by Mark Eichin of Cygnus Solutions (original, incomplete implementation), Pete Hoogenboom at the University of Utah (HPPA mainly), Michael Meissner of the Open Software Foundation (i386 mainly), and Ken Raeburn of Cygnus Solutions (sparc, initial 64-bit support).

Several engineers at Cygnus Solutions have also provided many small
bug fixes and configuration enhancements.

The initial Alpha support was contributed by Carnegie-Mellon University. Additional work was done by Ken Raeburn of Cygnus Solutions. Richard Henderson then rewrote much of the Alpha support.

Ian Dall updated the support code for the National Semiconductor 32000 series, and added support for Mach 3 and NetBSD running on the PC532.

Klaus Kaempf ported the assembler and the binutils to openVMS/Alpha.

Steve Haworth contributed the support for the Texas Instruction c30 (tms320c30).

H.J. Lu has contributed many patches and much testing.

Alan Modra reworked much of the i386 backend, improving the error checking, updating the code, and improving the 16 bit support, using patches from the work of Martynas Kunigelis and H.J. Lu.

Many others have contributed large or small bugfixes and enhancements. If you've contributed significant work and are not mentioned on this list, and want to be, let us know. Some of the history has been lost; we aren't
intentionally leaving anyone out.

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This option is useful when you wish to copy part of the code of the
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4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to

distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also compile or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the

copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

c) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

d) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

7. You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on

the Library and of the other library facilities is otherwise
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END OF TERMS AND CONDITIONS

Appendix: How to Apply These Terms to Your New Libraries

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Version 3, 29 June 2007

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b) Convey the object code in, or embodied in, a physical product (including a physical distribution medium), accompanied by a written offer, valid for at least three years and valid for as long as you offer spare parts or customer support for that product model, to give anyone who possesses the object code either (1) a copy of the Corresponding Source for all the software in the product that is covered by this License, on a durable physical medium customarily used for software interchange, for a price no more than your reasonable cost of physically performing this conveying of source, or (2) access to copy the Corresponding Source from a network server at no charge.

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1.56 tcl 8.5.0

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1.57 tcl 8.4.6

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1.64 libtirpc 0.2.5

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1.74 perl 5.22.0

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---
abstract: 'Build and install Perl modules'

author:
 - 'Ken Williams <kwilliams@cpan.org>'
 - "Development questions, bug reports, and patches should be sent to the\nModule-Build mailing list at <module-build@perl.org>."
build_requires:
 File::Temp: 0.15
 Test::Harness: 3.16
 Test::More: 0.49
generated_by: 'Module::Build version 0.3608'
license: gpl
meta-spec:
 url: http://module-build.sourceforge.net/META-spec-v1.4.html
 version: 1.4
name: Module-Build
resources:
 MailingList: mailto:module-build@perl.org
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version: 3

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Julian Seward, jseward@bzip.org
bzip2/libbzip2 version 1.0.6 of 6 September 2010

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<one line to give the program's name and a brief idea of what it does.>
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```
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under certain conditions; type `show c' for details.
```

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school, if any, to sign a "copyright disclaimer" for the program, if
necessary. Here a sample; alter the names:

```
Yoyodyne, Inc., hereby disclaims
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program `Gnomovision' (a program to direct compilers to make passes
at assemblers) written by James Hacker.

<signature of Ty Coon>, 1 April 1989
Ty Coon, President of Vice
```

That's all there is to it!

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The End
#!perl

=head1 NAME

copyright.t

```
=head1 DESCRIPTION

Tests that the latest copyright years in the top-level README file and the
C<perl -v> output match each other.

If the test fails, update at least one of README and perl.c so that they match
reality.

Optionally you can pass the C<--now> option to check they are at the current
year. This isn't checked by default, so that it doesn't fail for people
working on older releases. It should be run before making a new release.

=cut

use strict;
use Config;
BEGIN { require './test.pl' }

if ( $Config{usecrosscompile} ) {
 skip_all( "Not all files are available during cross-compilation" );
}

my ($opt) = @ARGV;

my $readme_year = readme_year();
my $v_year = v_year();

# Check that both copyright dates are up-to-date, but only if requested, so
# that tests still pass for people intentionally working on older versions:
if ($opt eq '--now')
{
 my $current_year = (gmtime)[5] + 1900;
 is $v_year, $current_year, 'perl -v copyright includes current
 year';
 is $readme_year, $current_year, 'README copyright includes current year';
}

# Otherwise simply check that the two copyright dates match each other:
else
{
 is $readme_year, $v_year, 'README and perl -v copyright dates match';
}

done_testing;


sub readme_year
```

```
# returns the latest copyright year from the top-level README file
{

 open my $readme, '<', '../README' or die "Opening README failed: $!";

 # The copyright message is the first paragraph:
 local $/ = '';
 my $copyright_msg = <$readme>;

 my ($year) = $copyright_msg =~ /.*\b(\d{4,})/s
    or die "Year not found in README copyright message '$copyright_msg'";

 $year;
}


sub v_year
# returns the latest copyright year shown in perl -v
{

 my $output = runperl switches => ['-v'];
 my ($year) = $output =~ /copyright 1987.*\b(\d{4,})/i
    or die "Copyright statement not found in perl -v output '$output'";

 $year;
}
```

1.75 gdb 7.10.1

1.75.1 Available under license :

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5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also compile or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply

a copy of this License. If the work
during execution displays copyright notices, you must include the
copyright notice for the Library among them, as well as a reference
directing the user to the copy of this License. Also, you must do one
of these things:

a) Accompany the work with the complete corresponding
machine-readable source code for the Library including whatever
changes were used in the work (which must be distributed under
Sections 1 and 2 above); and, if the work is an executable linked
with the Library, with the complete machine-readable "work that
uses the Library", as object code and/or source code, so that the
user can modify the Library and then relink to produce a modified
executable containing the modified Library. (It is understood
that the user who changes the contents of definitions files in the
Library will not necessarily be able to recompile the application
to use the modified definitions.)

b) Accompany the
work with a written offer, valid for at
least three years, to give the same user the materials
specified in Subsection 6a, above, for a charge no more
than the cost of performing this distribution.

c) If distribution of the work is made by offering access to copy
from a designated place, offer equivalent access to copy the above
specified materials from the same place.

d) Verify that the user has already received a copy of these
materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the
Library" must include any data and utility programs needed for
reproducing the executable from it. However, as a special exception,
the source code distributed need not include anything that is normally
distributed (in either source or binary form) with the major
components (compiler, kernel, and so on) of the operating system on
which the executable runs, unless that component itself accompanies
the executable.

It may happen that this requirement contradicts the license
restrictions of other proprietary libraries that do not normally
accompany the operating system. Such a contradiction means you cannot
use both them and the Library together in an executable that you
distribute.

7. You may place library facilities that are a work based on the
Library side-by-side in a single library together with other library

facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the Sections above.

b) Give prominent notice with the combined library of the fact that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.

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END OF TERMS AND CONDITIONS

Appendix: How to Apply These Terms to Your New Libraries

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To apply these terms, attach the following notices to the library. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

<one line to give the library's name and a brief idea of what it does.>
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You should also get your employer (if you work as a programmer) or your
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necessary.
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library `Frob' (a library for tweaking knobs) written by James Random Hacker.

<signature of Ty Coon>, 1 April 1990
Ty Coon, President of Vice

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Version 2.1, February 1999

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This license, the Lesser General Public License, applies to some specially designated software packages--typically libraries--of the Free Software Foundation and other authors who decide to use it. You can use it too, but we
suggest you first think carefully about whether
this license or the ordinary General Public License is the better strategy to use in any particular case, based on the explanations below.

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recipients all the rights that we gave
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We protect your rights with a two-step method: (1) we copyright the library, and (2) we offer you this license, which gives you legal permission to copy, distribute and/or modify the library.

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Finally, software patents pose a constant threat to the existence

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fits its criteria of freedom. The Lesser General
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use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

Although the Lesser General Public License is Less protective of the

users' freedom, it does ensure that the user of a program that is
linked with the Library has the freedom and the wherewithal to run
that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and
modification follow. Pay close attention to the difference between a
"work based on the library" and a "work that uses the library". The
former contains code derived from the library, whereas the latter must
be combined with the library in order to run.

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Each licensee is addressed as "you".

A "library" means a collection of software functions and/or data
prepared so as to be conveniently linked with application programs
(which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work
which has been distributed under these terms. A "work based on the
Library" means either the Library or any derivative work under
copyright law: that is to say, a work containing the Library or a
portion of it, either verbatim or with modifications and/or translated
straightforwardly into another language. (Hereinafter, translation is
included without
limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for
making modifications to it. For a library, complete source code means
all the source code for all modules it contains, plus any associated
interface definition files, plus the scripts used to control compilation
and installation of the library.

Activities other than copying, distribution and modification are not
covered by this License; they are outside its scope. The act of
running a program using the Library is not restricted, and output from
such a program is covered only if its contents constitute a work based
on the Library (independent of the use of the Library in a tool for
writing it). Whether that is true depends on what the Library does
and what the program that uses the Library does.

1. You may copy and distribute verbatim copies of the Library's
complete source code as you receive it, in any medium, provided that

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on each copy an
appropriate copyright notice and disclaimer of warranty; keep intact
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warranty; and distribute a copy of this License along with the
Library.

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fee.

2. You may modify your copy or copies of the Library or any portion
of it, thus forming a work based on the Library, and copy and
distribute such modifications or work under the terms of Section 1
above, provided that you also meet all of these conditions:

a) The modified work must itself be a software library.

b) You must cause the files modified to carry prominent notices
stating that you changed the files and the date of any change.

c) You must cause the whole of the work to be licensed at no
charge to all third parties under the terms of this License.

d) If a facility in the modified
Library refers to a function or a
table of data to be supplied by an application program that uses
the facility, other than as an argument passed when the facility
is invoked, then you must make a good faith effort to ensure that,
in the event an application does not supply such function or
table, the facility still operates, and performs whatever part of
its purpose remains meaningful.

(For example, a function in a library to compute square roots has
a purpose that is entirely well-defined independent of the
application. Therefore, Subsection 2d requires that any
application-supplied function or table used by this function must
be optional: if the application does not supply it, the square
root function must still compute square roots.)

These requirements apply to the modified work as a whole. If
identifiable sections of that work are not derived from the Library,
and can be reasonably considered independent and separate works in
themselves,
then this License, and its terms, do not apply to those
sections when you distribute them as separate works. But when you
distribute the same sections as part of a whole which is a work based
on the Library, the distribution of the whole must be on the terms of

this License, whose permissions for other licensees extend to the
entire whole, and thus to each and every part regardless of who wrote
it.

Thus, it is not the intent of this section to claim rights or contest
your rights to work written entirely by you; rather, the intent is to
exercise the right to control the distribution of derivative or
collective works based on the Library.

In addition, mere aggregation of another work not based on the Library
with the Library (or with a work based on the Library) on a volume of
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the scope of this License.

3. You may opt to apply the terms of the ordinary GNU General Public
License instead of this License
to a given copy of the Library. To do
this, you must alter all the notices that refer to this License, so
that they refer to the ordinary GNU General Public License, version 2,
instead of to this License. (If a newer version than version 2 of the
ordinary GNU General Public License has appeared, then you can specify
that version instead if you wish.) Do not make any other change in
these notices.

Once this change is made in a given copy, it is irreversible for
that copy, so the ordinary GNU General Public License applies to all
subsequent copies and derivative works made from that copy.

This option is useful when you wish to copy part of the code of
the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or
derivative of it, under Section 2) in object code or executable form
under the terms of Sections 1 and 2 above provided that you accompany
it with the complete corresponding machine-readable source code, which
must be
distributed under the terms of Sections 1 and 2 above on a
medium customarily used for software interchange.

If distribution of object code is made by offering access to copy
from a designated place, then offering equivalent access to copy the
source code from the same place satisfies the requirement to
distribute the source code, even though third parties are not
compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the
Library, but is designed to work with the Library by being compiled or
linked with it, is called a "work that uses the Library". Such a

work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License.
Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

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a) Accompany the work with the complete corresponding machine-readable

source code for the Library including whatever
changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the
user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major
components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

7. You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the Sections above.

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by the Library, but which is not otherwise based on the Library.
Defining a subclass of a class defined by the Library is

deemed a mode
of using an interface provided by the Library.

A "Combined Work" is a work produced by combining or linking an Application with the Library. The particular version of the Library with which the Combined Work was made is also called the "Linked Version".

The "Minimal Corresponding Source" for a Combined Work means the Corresponding Source for the Combined Work, excluding any source code for portions of the Combined Work that, considered in isolation, are based on the Application, and not on the Linked Version.

The "Corresponding Application Code" for a Combined Work means the object code and/or source code for the Application, including any data and utility programs needed for reproducing the Combined Work from the Application, but excluding the System Libraries of the Combined Work.

1. Exception to Section 3 of the GNU GPL.

You may convey a covered work under sections 3 and 4 of this License without being bound by section 3 of the GNU GPL.

2. Conveying
Modified Versions.

If you modify a copy of the Library, and, in your modifications, a facility refers to a function or data to be supplied by an Application that uses the facility (other than as an argument passed when the facility is invoked), then you may convey a copy of the modified version:

a) under this License, provided that you make a good faith effort to ensure that, in the event an Application does not supply the function or data, the facility still operates, and performs whatever part of its purpose remains meaningful, or

b) under the GNU GPL, with none of the additional permissions of this License applicable to that copy.

3. Object Code Incorporating Material from Library Header Files.

The object code form of an Application may incorporate material from a header file that is part of the Library. You may convey such object code under terms of your choice, provided that, if the incorporated material is not limited to numerical parameters, data
structure
layouts and accessors, or small macros, inline functions and templates

(ten or fewer lines in length), you do both of the following:

a) Give prominent notice with each copy of the object code that the Library is used in it and that the Library and its use are covered by this License.

b) Accompany the object code with a copy of the GNU GPL and this license document.

4. Combined Works.

You may convey a Combined Work under terms of your choice that, taken together, effectively do not restrict modification of the portions of the Library contained in the Combined Work and reverse engineering for debugging such modifications, if you also do each of the following:

a) Give prominent notice with each copy of the Combined Work that the Library is used in it and that the Library and its use are covered by this License.

b) Accompany the Combined Work with a copy of the GNU GPL and this license document.

c) For a Combined Work that displays copyright notices during execution, include the copyright notice for the Library among these notices, as well as a reference directing the user to the copies of the GNU GPL and this license document.

d) Do one of the following:

0) Convey the Minimal Corresponding Source under the terms of this License, and the Corresponding Application Code in a form suitable for, and under terms that permit, the user to recombine or relink the Application with a modified version of the Linked Version to produce a modified Combined Work, in the manner specified by section 6 of the GNU GPL for conveying Corresponding Source.

1) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (a) uses at run time a copy of the Library already present on the user's computer system, and (b) will operate properly with a modified version of the Library that is interface-compatible with the Linked Version.

e) Provide Installation Information, but only if you would otherwise be required to provide such information under section 6 of the GNU GPL, and only to the extent that such information is necessary to install and execute a modified version of the Combined Work produced by recombining or relinking the Application with a modified version of the Linked Version. (If you use option 4d0, the Installation Information must accompany the Minimal Corresponding Source and Corresponding Application Code. If you use option 4d1, you must provide the Installation Information in the manner specified by section 6 of the GNU GPL for conveying Corresponding Source.)

5. Combined Libraries.

You may place library facilities that are a work based on the Library side by side in a single library together with other library facilities that are not Applications and are not covered by this License, and convey such a combined library under terms of your choice, if you do both of the following:

a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities, conveyed under the terms of this License.

b) Give prominent notice with the combined library that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.

6. Revised Versions of the GNU Lesser General Public License.

The Free Software Foundation may publish revised and/or new versions of the GNU Lesser General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Library as you received it specifies that a certain numbered version of the GNU Lesser General Public License "or any later version" applies to it, you have the option of following the terms and conditions either of that published version or of any later version published by the Free Software Foundation. If the Library as you received it does not specify a version number of the GNU Lesser General Public License, you may choose any version of the GNU Lesser General Public License ever published by the Free Software Foundation.

If the Library as you received it specifies that a proxy can decide

```
whether future versions of the GNU Lesser General Public License shall
apply, that proxy's public statement of acceptance of any version is
permanent authorization for you to choose that version for the
Library.
BEGIN {
  FS="\"";
  print "/* ==> Do not modify this file!!  " \
  "-*- buffer-read-only: t -*- vi" \
  ":set ro:";
  print "   It is created automatically by copying.awk.";
  print "   Modify copying.awk instead.  <== */";
  print ""
  print "#include \"defs.h\""
  print "#include \"command.h\""
  print "#include \"gdbcmd.h\""
  print ""
  print "static void show_copying_command (char *, int);"
  print ""
  print "static void show_warranty_command (char *, int);"
  print ""
  print "void _initialize_copying (void);"
  print ""
  print "static void";
  print "show_copying_command (char *ignore, int from_tty)";
  print "{";
 }
NR == 1,/^[  ]*15\. Disclaimer of Warranty\.[  ]*$/ {
  if ($0 ~ //)
    {
      printf "  printf_filtered (\"\\n\");\n";
    }
  else if ($0 !~ /^[  ]*15\. Disclaimer of Warranty\.[  ]*$/)
    {
      printf "  printf_filtered (\"";
      for (i = 1; i < NF; i++)
  printf "%s\\\"", $i;
      printf "%s\\n\");\n", $NF;
    }
 }
/^[  ]*15\.
 Disclaimer of Warranty\.[  ]*$/ {
  print "}";
  print "";
  print "static void";
  print "show_warranty_command (char *ignore, int from_tty)";
  print "{";
 }
/^[  ]*15\. Disclaimer of Warranty\.[  ]*$/, /^[  ]*END OF TERMS AND CONDITIONS[  ]*$/{
```

```
  if (! ($0 ~ /^[  ]*END OF TERMS AND CONDITIONS[  ]*$/))
    {
      printf "  printf_filtered (\"";
      for (i = 1; i < NF; i++)
  printf "%s\\\"", $i;
      printf "%s\\n\");\n", $NF;
    }
 }
END {
  print "}";
  print "";
  print "void"
  print "_initialize_copying (void)";
  print "{";
  print "  add_cmd (\"copying\", no_set_class, show_copying_command,";
  print "    _(\"Conditions for redistributing copies of GDB.\"),";
  print "    &showlist);";
  print "  add_cmd (\"warranty\", no_set_class, show_warranty_command,";
  print "    _(\"Various kinds of warranty you do not have.\"),";
  print "    &showlist);";
  print "";
  print "  /* For old-timers, allow \"info copying\", etc.  */";
  print "  add_info
 (\"copying\", show_copying_command,";
  print "     _(\"Conditions for redistributing copies of GDB.\"));";
  print "  add_info (\"warranty\", show_warranty_command,";
  print "     _(\"Various kinds of warranty you do not have.\"));";
  print "}";
 }
```

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@center Version 2.1, February 1999

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[This is the first released version of the Lesser GPL. It also counts
as the successor of the GNU Library Public License, version 2, hence the
version number 2.1.]
@end display

@appendixsubsec Preamble

The licenses for most software are designed to take away your
freedom to share and change it. By contrast, the GNU General Public
Licenses are intended to guarantee your freedom to share and change
free software---to make sure the software is free for all its users.

This license, the Lesser General Public License, applies to some
specially designated software---typically libraries---of
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it too, but we suggest you first think carefully about whether this
license or the ordinary General Public License is the better strategy to
use in any particular case, based on the explanations below.

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it if you want it; that you can change the software and use pieces of it
in new free programs; and that you are informed that you can do these
things.

To protect your rights, we need to make restrictions that forbid

distributors to deny you these rights or to ask you to surrender these rights. These restrictions translate to certain responsibilities for you if you distribute copies of the library or if you modify it.

For example, if you distribute copies of the library, whether gratis or for a fee, you must give the recipients all the rights that we gave you. You must make sure that they, too, receive or can get the source code. If you link other code with the library, you must provide complete object files to the recipients, so that they can relink them with the library after making changes to the library and recompiling it. And you must show them these terms so they know their rights.

We protect your rights with a two-step method: (1) we copyright the library, and (2) we offer you this license, which gives you legal permission to copy, distribute and/or modify the library.

To protect each distributor, we want to make it very clear that there is no warranty for the free library. Also, if the library is modified by someone else and passed on, the recipients should know that what they have is not the original version, so that the original author's reputation will not be affected by problems
that might be
introduced by others.

Finally, software patents pose a constant threat to the existence of any free program. We wish to make sure that a company cannot effectively restrict the users of a free program by obtaining a restrictive license from a patent holder. Therefore, we insist that any patent license obtained for a version of the library must be consistent with the full freedom of use specified in this license.

Most GNU software, including some libraries, is covered by the ordinary GNU General Public License. This license, the GNU Lesser General Public License, applies to certain designated libraries, and is quite different from the ordinary General Public License. We use this license for certain libraries in order to permit linking those libraries into non-free programs.

When a program is linked with a library, whether statically or using a shared library, the combination of the two is legally speaking a combined work, a derivative of the original library.
The ordinary
General Public License therefore permits such linking only if the entire combination fits its criteria of freedom. The Lesser General Public License permits more lax criteria for linking other code with the library.

We call this license the @dfn{Lesser} General Public License because it

does @emph{Less} to protect the user's freedom than the ordinary General
Public License. It also provides other free software developers Less
of an advantage over competing non-free programs. These disadvantages
are the reason we use the ordinary General Public License for many
libraries. However, the Lesser license provides advantages in certain
special circumstances.

For example, on rare occasions, there may be a special need to
encourage the widest possible use of a certain library, so that it becomes
a de-facto standard. To achieve this, non-free programs must be
allowed to use the library. A more frequent case is that a free
library does the same job as widely used non-free
libraries. In this
case, there is little to gain by limiting the free library to free
software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free
programs enables a greater number of people to use a large body of
free software. For example, permission to use the GNU C Library in
non-free programs enables many more people to use the whole GNU
operating system, as well as its variant, the GNU/Linux operating
system.

Although the Lesser General Public License is Less protective of the
users' freedom, it does ensure that the user of a program that is
linked with the Library has the freedom and the wherewithal to run
that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and
modification follow. Pay close attention to the difference between a
``work based on the library'' and a ``work that uses the library''. The
former contains code derived from the
library, whereas the latter must
be combined with the library in order to run.

@iftex
@appendixsubsec TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION
@end iftex
@ifinfo
@center GNU LESSER GENERAL PUBLIC LICENSE
@center TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION
@end ifinfo

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which contains a notice placed by the copyright holder or other
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Lesser General Public License (also called ``this License''). Each licensee is addressed as ``you''.

A ``library'' means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The ``Library'', below, refers to any such software library or work which has been distributed under these terms. A ``work based on the Library'' means
either the Library or any derivative work under
copyright law: that is to say, a work containing the Library or a portion of it, either verbatim or with modifications and/or translated straightforwardly into another language. (Hereinafter, translation is included without limitation in the term ``modification''.)

``Source code'' for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether
that is true depends on what the Library does
and what the program that uses the Library does.

@item
You may copy and distribute verbatim copies of the Library's complete source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and distribute a copy of this License along with the Library.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

@item
You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1

above, provided that you also meet all of these conditions:

@enumerate a
@item
The modified work must itself be a software library.

@item
You must cause
 the files modified to carry prominent notices
stating that you changed the files and the date of any change.

@item
You must cause the whole of the work to be licensed at no
charge to all third parties under the terms of this License.

@item
If a facility in the modified Library refers to a function or a
table of data to be supplied by an application program that uses
the facility, other than as an argument passed when the facility
is invoked, then you must make a good faith effort to ensure that,
in the event an application does not supply such function or
table, the facility still operates, and performs whatever part of
its purpose remains meaningful.

(For example, a function in a library to compute square roots has
a purpose that is entirely well-defined independent of the
application. Therefore, Subsection 2d requires that any
application-supplied function or table used by this function must
be optional: if the application does not supply it, the square
root function must still
 compute square roots.)
@end enumerate

These requirements apply to the modified work as a whole. If
identifiable sections of that work are not derived from the Library,
and can be reasonably considered independent and separate works in
themselves, then this License, and its terms, do not apply to those
sections when you distribute them as separate works. But when you
distribute the same sections as part of a whole which is a work based
on the Library, the distribution of the whole must be on the terms of
this License, whose permissions for other licensees extend to the
entire whole, and thus to each and every part regardless of who wrote
it.

Thus, it is not the intent of this section to claim rights or contest
your rights to work written entirely by you; rather, the intent is to
exercise the right to control the distribution of derivative or
collective works based on the Library.

In addition, mere aggregation of another work not based on the Library
with the Library (or with a work
 based on the Library) on a volume of
a storage or distribution medium does not bring the other work under
the scope of this License.

@item
You may opt to apply the terms of the ordinary GNU General Public
License instead of this License to a given copy of the Library. To do
this, you must alter all the notices that refer to this License, so
that they refer to the ordinary GNU General Public License, version 2,
instead of to this License. (If a newer version than version 2 of the
ordinary GNU General Public License has appeared, then you can specify
that version instead if you wish.) Do not make any other change in
these notices.

 Once this change is made in a given copy, it is irreversible for
that copy, so the ordinary GNU General Public License applies to all
subsequent copies and derivative works made from that copy.

 This option is useful when you wish to copy part of the code of
the Library into a program that is not a library.

@item
You may copy and distribute the Library
 (or a portion or
derivative of it, under Section 2) in object code or executable form
under the terms of Sections 1 and 2 above provided that you accompany
it with the complete corresponding machine-readable source code, which
must be distributed under the terms of Sections 1 and 2 above on a
medium customarily used for software interchange.

 If distribution of object code is made by offering access to copy
from a designated place, then offering equivalent access to copy the
source code from the same place satisfies the requirement to
distribute the source code, even though third parties are not
compelled to copy the source along with the object code.

@item
A program that contains no derivative of any portion of the
Library, but is designed to work with the Library by being compiled or
linked with it, is called a ``work that uses the Library''. Such a
work, in isolation, is not a derivative work of the Library, and
therefore falls outside the scope of this License.

 However,

linking a ``work that uses the Library'' with the Library
creates an executable that is a derivative of the Library (because it
contains portions of the Library), rather than a ``work that uses the
library''. The executable is therefore covered by this License.
Section 6 states terms for distribution of such executables.

When a ``work that uses the Library'' uses material from a header file
that is part of the Library, the object code for the work may be a
derivative work of the Library even though the source code is not.
Whether this is true is especially significant if the work can be
linked without the Library, or if the work is itself a library. The
threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data
structure layouts and accessors, and small macros and small inline
functions (ten lines or less in length), then the use of the object
file is unrestricted, regardless of whether it is legally a derivative
work.
(Executables containing this object code plus portions of the
Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may
distribute the object code for the work under the terms of Section 6.
Any executables containing that work also fall under Section 6,
whether or not they are linked directly with the Library itself.

@item
As an exception to the Sections above, you may also combine or
link a ``work that uses the Library'' with the Library to produce a
work containing portions of the Library, and distribute that work
under terms of your choice, provided that the terms permit
modification of the work for the customer's own use and reverse
engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the
Library is used in it and that the Library and its use are covered by
this License. You must supply a copy of this License. If the work
during execution displays copyright notices,
you must include the
copyright notice for the Library among them, as well as a reference
directing the user to the copy of this License. Also, you must do one
of these things:

@enumerate a
@item
Accompany the work with the complete corresponding
machine-readable source code for the Library including whatever
changes were used in the work (which must be distributed under

Sections 1 and 2 above); and, if the work is an executable linked
with the Library, with the complete machine-readable ``work that
uses the Library'', as object code and/or source code, so that the
user can modify the Library and then relink to produce a modified
executable containing the modified Library. (It is understood
that the user who changes the contents of definitions files in the
Library will not necessarily be able to recompile the application
to use the modified definitions.)

@item
Use a suitable shared library mechanism for linking with the Library. A
suitable mechanism is one that (1) uses at run time
 a copy of the
library already present on the user's computer system, rather than
copying library functions into the executable, and (2) will operate
properly with a modified version of the library, if the user installs
one, as long as the modified version is interface-compatible with the
version that the work was made with.

@item
Accompany the work with a written offer, valid for at
least three years, to give the same user the materials
specified in Subsection 6a, above, for a charge no more
than the cost of performing this distribution.

@item
If distribution of the work is made by offering access to copy
from a designated place, offer equivalent access to copy the above
specified materials from the same place.

@item
Verify that the user has already received a copy of these
materials or that you have already sent this user a copy.
@end enumerate

 For an executable, the required form of the ``work that uses the
Library'' must include any data and utility programs needed for
reproducing
 the executable from it. However, as a special exception,
the materials to be distributed need not include anything that is
normally distributed (in either source or binary form) with the major
components (compiler, kernel, and so on) of the operating system on
which the executable runs, unless that component itself accompanies the
executable.

 It may happen that this requirement contradicts the license
restrictions of other proprietary libraries that do not normally
accompany the operating system. Such a contradiction means you cannot

use both them and the Library together in an executable that you
distribute.

@item
You may place library facilities that are a work based on the
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facilities not covered by this License, and distribute such a combined
library, provided that the separate distribution of the work based on
the Library and of the other library facilities is otherwise
permitted, and provided that
 you do these two things:

@enumerate a
@item
Accompany the combined library with a copy of the same work
based on the Library, uncombined with any other library
facilities. This must be distributed under the terms of the
Sections above.

@item
Give prominent notice with the combined library of the fact
that part of it is a work based on the Library, and explaining
where to find the accompanying uncombined form of the same work.
@end enumerate

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refrain entirely from distribution of the Library.

If any portion of this section is held invalid or unenforceable under any
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This section is intended to make thoroughly clear what is believed to
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Such new versions will be similar in spirit to the present version,
but may differ in detail to address new problems or concerns.

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@end enumerate

@iftex
@heading END OF TERMS AND CONDITIONS
@end iftex
@ifinfo
@center END OF TERMS AND CONDITIONS
@end ifinfo

@page
@appendixsubsec How to Apply These Terms to Your New Libraries

If you develop a new library, and you want it to be of the greatest possible use to the public, we recommend making it free software that everyone can redistribute and change. You can do so by permitting redistribution under these terms (or, alternatively, under the terms of the ordinary General Public License).

To apply these terms, attach the following notices to the library. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the ``copyright'' line and a pointer to where the full notice is found.

@smallexample
@var{one line to give the library's name and an idea of what it does.}
Copyright (C) @var{year} @var{name of author}

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You should have received a copy of the GNU Lesser General Public License along with this library; if not, write to the Free Software Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.

@end smallexample

Also add information on how to contact you by electronic and paper mail.

You should also get your employer (if you work as a programmer) or your
school, if any, to sign a ``copyright disclaimer'' for the library, if
necessary. Here is a sample; alter the names:

@smallexample
Yoyodyne, Inc., hereby disclaims all copyright interest in the library
`Frob' (a library for tweaking knobs) written by James Random Hacker.

@var{signature of Ty Coon}, 1 April 1990
Ty Coon, President of Vice
@end smallexample

That's all there is to it!
#! /usr/bin/env python

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#
This file is part of GDB.
#
This program is free software; you can redistribute it and/or modify
it under the terms of the GNU General Public License as published by
the Free Software Foundation; either version 3 of the License, or
(at your option) any later version.
#
This program is distributed in the hope that it will be useful,
but WITHOUT ANY WARRANTY; without even the implied warranty of
MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the
GNU General Public License for more details.
#
You should have received a copy of the GNU General Public License
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"""copyright.py

This script updates the list of years in the copyright notices in
most files maintained by the GDB project.

Usage: cd src/gdb && python copyright.py

Always review the output of this script before committing it!
A useful command to review
 the output is:
   % filterdiff -x *.c -x *.cc -x *.h -x *.exp updates.diff
This removes the bulk of the changes which are most likely to be correct.

```
"""

import datetime
import os
import os.path
import subprocess


def get_update_list():
  """Return the list of files to update.

  Assumes that the current working directory when called is the root
  of the GDB source tree (NOT the gdb/ subdirectory!).  The names of
  the files are relative to that root directory.
  """
  result = []
  for gdb_dir in ('gdb', 'sim', 'include/gdb'):
     for root, dirs, files in os.walk(gdb_dir, topdown=True):
        for dirname in dirs:
           reldirname = "%s/%s" % (root, dirname)
           if (dirname in EXCLUDE_ALL_LIST
              or reldirname in EXCLUDE_LIST
              or reldirname in NOT_FSF_LIST
              or reldirname in BY_HAND):
              # Prune this directory from our search list.
              dirs.remove(dirname)
         for filename in files:
           relpath = "%s/%s" % (root, filename)
           if (filename in EXCLUDE_ALL_LIST
              or relpath in EXCLUDE_LIST
              or relpath in NOT_FSF_LIST
              or relpath in BY_HAND):
              # Ignore this file.
              pass
           else:
              result.append(relpath)
  return result


def update_files(update_list):
  """Update the copyright header of the files in the given list.

  We use gnulib's update-copyright script for that.
  """
  # We want to use year intervals in the copyright notices, and
  # all years should be collapsed to one single year interval,
  # even if there are "holes" in the list of years found in the
  # original copyright notice (OK'ed by the FSF, case [gnu.org #719834]).
```

```
  os.environ['UPDATE_COPYRIGHT_USE_INTERVALS'] = '2'

  # Perform the update, and save the output in a string.
  update_cmd
= ['bash', 'gdb/gnulib/import/extra/update-copyright']
  update_cmd += update_list

  p = subprocess.Popen(update_cmd, stdout=subprocess.PIPE,
                       stderr=subprocess.STDOUT)
  update_out = p.communicate()[0]

  # Process the output.  Typically, a lot of files do not have
  # a copyright notice :-(.  The update-copyright script prints
  # a well defined warning when it did not find the copyright notice.
  # For each of those, do a sanity check and see if they may in fact
  # have one.  For the files that are found not to have one, we filter
  # the line out from the output, since there is nothing more to do,
  # short of looking at each file and seeing which notice is appropriate.
  # Too much work! (~4,000 files listed as of 2012-01-03).
  update_out = update_out.splitlines()
  warning_string = ': warning: copyright statement not found'
  warning_len = len(warning_string)

  for line in update_out:
     if line.endswith('\n'):

      line = line[:-1]
     if line.endswith(warning_string):
        filename = line[:-warning_len]
        if may_have_copyright_notice(filename):
           print line
     else:
        # Unrecognized file format. !?!
        print "*** " + line


def may_have_copyright_notice(filename):
  """Check that the given file does not seem to have a copyright notice.

  The filename is relative to the root directory.
  This function assumes that the current working directory is that root
  directory.

  The algorigthm is fairly crude, meaning that it might return
  some false positives.  I do not think it will return any false
  negatives...  We might improve this function to handle more
  complex cases later...
  """
```

```
  # For now, it may have a copyright notice if we find the word
  # "Copyright" at the (reasonable) start of the given file, say
  # 50 lines...
  MAX_LINES = 50

  fd = open(filename)

  lineno = 1
  for line in fd:
      if 'Copyright' in line:
         return True
      lineno += 1
      if lineno > 50:
         return False
  return False


def main ():
  """The main subprogram."""
  if not os.path.isfile("gnulib/import/extra/update-copyright"):
     print "Error: This script must be called from the gdb directory."
  root_dir = os.path.dirname(os.getcwd())
  os.chdir(root_dir)

  update_list = get_update_list()
  update_files (update_list)

  # Remind the user that some files need to be updated by HAND...
  if BY_HAND:
     print
     print "\033[31mREMINDER: The following files must be updated by hand." \
          "\033[0m"
     for filename in BY_HAND + MULTIPLE_COPYRIGHT_HEADERS:
        print "  ", filename

############################################################################
#
# Some constants, placed at the end because they take up a lot of room.
# The actual value of these constants is not significant to the understanding
# of the
 script.
#
############################################################################

# Files which should not be modified, either because they are
# generated, non-FSF, or otherwise special (e.g. license text,
# or test cases which must be sensitive to line numbering).
#
```

```
# Filenames are relative to the root directory.
EXCLUDE_LIST = (
  'gdb/nat/glibc_thread_db.h',
  'gdb/CONTRIBUTE',
  'gdb/gnulib/import'
)

# Files which should not be modified, either because they are
# generated, non-FSF, or otherwise special (e.g. license text,
# or test cases which must be sensitive to line numbering).
#
# Matches any file or directory name anywhere.  Use with caution.
# This is mostly for files that can be found in multiple directories.
# Eg: We want all files named COPYING to be left untouched.

EXCLUDE_ALL_LIST = (
  "COPYING", "COPYING.LIB", "CVS", "configure", "copying.c",
  "fdl.texi", "gpl.texi", "aclocal.m4",
)

# The list of files to update by hand.
BY_HAND = (
  # These
 files are sensitive to line numbering.
  "gdb/testsuite/gdb.base/step-line.inp",
  "gdb/testsuite/gdb.base/step-line.c",
)

# Files containing multiple copyright headers.  This script is only
# fixing the first one it finds, so we need to finish the update
# by hand.
MULTIPLE_COPYRIGHT_HEADERS = (
  "gdb/doc/gdb.texinfo",
  "gdb/doc/refcard.tex",
  "gdb/gdbarch.sh",
)

# The list of file which have a copyright, but not head by the FSF.
# Filenames are relative to the root directory.
NOT_FSF_LIST = (
  "gdb/exc_request.defs",
  "gdb/gdbtk",
  "gdb/testsuite/gdb.gdbtk/",
  "sim/arm/armemu.h", "sim/arm/armos.c", "sim/arm/gdbhost.c",
  "sim/arm/dbg_hif.h", "sim/arm/dbg_conf.h", "sim/arm/communicate.h",
  "sim/arm/armos.h", "sim/arm/armcopro.c", "sim/arm/armemu.c",
  "sim/arm/kid.c", "sim/arm/thumbemu.c", "sim/arm/armdefs.h",
  "sim/arm/armopts.h", "sim/arm/dbg_cp.h", "sim/arm/dbg_rdi.h",
```

"sim/arm/parent.c", "sim/arm/armsupp.c", "sim/arm/armrdi.c",
"sim/arm/bag.c",
"sim/arm/armvirt.c", "sim/arm/main.c", "sim/arm/bag.h",
"sim/arm/communicate.c", "sim/arm/gdbhost.h", "sim/arm/armfpe.h",
"sim/arm/arminit.c",
"sim/common/cgen-fpu.c", "sim/common/cgen-fpu.h",
"sim/common/cgen-accfp.c",
"sim/mips/m16run.c", "sim/mips/sim-main.c",
"sim/moxie/moxie-gdb.dts",
Not a single file in sim/ppc/ appears to be copyright FSF :-(.
"sim/ppc/filter.h", "sim/ppc/gen-support.h", "sim/ppc/ld-insn.h",
"sim/ppc/hw_sem.c", "sim/ppc/hw_disk.c", "sim/ppc/idecode_branch.h",
"sim/ppc/sim-endian.h", "sim/ppc/table.c", "sim/ppc/hw_core.c",
"sim/ppc/gen-support.c", "sim/ppc/gen-semantics.h", "sim/ppc/cpu.h",
"sim/ppc/sim_callbacks.h", "sim/ppc/RUN", "sim/ppc/Makefile.in",
"sim/ppc/emul_chirp.c", "sim/ppc/hw_nvram.c", "sim/ppc/dc-test.01",
"sim/ppc/hw_phb.c", "sim/ppc/hw_eeprom.c", "sim/ppc/bits.h",
"sim/ppc/hw_vm.c", "sim/ppc/cap.h", "sim/ppc/os_emul.h",
"sim/ppc/options.h", "sim/ppc/gen-idecode.c", "sim/ppc/filter.c",
"sim/ppc/corefile-n.h", "sim/ppc/std-config.h", "sim/ppc/ld-decode.h",
"sim/ppc/filter_filename.h", "sim/ppc/hw_shm.c",
"sim/ppc/pk_disklabel.c", "sim/ppc/dc-simple", "sim/ppc/misc.h",
"sim/ppc/device_table.h", "sim/ppc/ld-insn.c", "sim/ppc/inline.c",
"sim/ppc/emul_bugapi.h", "sim/ppc/hw_cpu.h", "sim/ppc/debug.h",
"sim/ppc/hw_ide.c", "sim/ppc/debug.c", "sim/ppc/gen-itable.h",
"sim/ppc/interrupts.c", "sim/ppc/hw_glue.c", "sim/ppc/emul_unix.c",
"sim/ppc/sim_calls.c", "sim/ppc/dc-complex", "sim/ppc/ld-cache.c",
"sim/ppc/registers.h", "sim/ppc/dc-test.02", "sim/ppc/options.c",
"sim/ppc/igen.h", "sim/ppc/registers.c", "sim/ppc/device.h",
"sim/ppc/emul_chirp.h", "sim/ppc/hw_register.c", "sim/ppc/hw_init.c",
"sim/ppc/sim-endian-n.h", "sim/ppc/filter_filename.c",
"sim/ppc/bits.c", "sim/ppc/idecode_fields.h", "sim/ppc/hw_memory.c",
"sim/ppc/misc.c", "sim/ppc/double.c", "sim/ppc/psim.h",
"sim/ppc/hw_trace.c", "sim/ppc/emul_netbsd.h",
"sim/ppc/psim.c",
"sim/ppc/ppc-instructions", "sim/ppc/tree.h", "sim/ppc/README",
"sim/ppc/gen-icache.h", "sim/ppc/gen-model.h", "sim/ppc/ld-cache.h",
"sim/ppc/mon.c", "sim/ppc/corefile.h", "sim/ppc/vm.c",
"sim/ppc/INSTALL", "sim/ppc/gen-model.c", "sim/ppc/hw_cpu.c",
"sim/ppc/corefile.c", "sim/ppc/hw_opic.c", "sim/ppc/gen-icache.c",
"sim/ppc/events.h", "sim/ppc/os_emul.c", "sim/ppc/emul_generic.c",
"sim/ppc/main.c", "sim/ppc/hw_com.c", "sim/ppc/gen-semantics.c",
"sim/ppc/emul_bugapi.c", "sim/ppc/device.c", "sim/ppc/emul_generic.h",
"sim/ppc/tree.c", "sim/ppc/mon.h", "sim/ppc/interrupts.h",
"sim/ppc/cap.c", "sim/ppc/cpu.c", "sim/ppc/hw_phb.h",
"sim/ppc/device_table.c", "sim/ppc/lf.c", "sim/ppc/lf.c",
"sim/ppc/dc-stupid", "sim/ppc/hw_pal.c", "sim/ppc/ppc-spr-table",
"sim/ppc/emul_unix.h", "sim/ppc/words.h", "sim/ppc/basics.h",

```
  "sim/ppc/hw_htab.c", "sim/ppc/lf.h", "sim/ppc/ld-decode.c",
  "sim/ppc/sim-endian.c", "sim/ppc/gen-itable.c",
   "sim/ppc/idecode_expression.h", "sim/ppc/table.h", "sim/ppc/dgen.c",
  "sim/ppc/events.c", "sim/ppc/gen-idecode.h", "sim/ppc/emul_netbsd.c",
  "sim/ppc/igen.c", "sim/ppc/vm_n.h", "sim/ppc/vm.h",
  "sim/ppc/hw_iobus.c", "sim/ppc/inline.h",
  "sim/testsuite/sim/bfin/s21.s", "sim/testsuite/sim/mips/mips32-dsp2.s",
)

if __name__ == "__main__":
  main()
@ignore
@c Set file name and title for man page.
@setfilename gpl
@settitle GNU General Public License
@c man begin SEEALSO
gfdl(7), fsf-funding(7).
@c man end
@c man begin COPYRIGHT
Copyright @copyright{} 2007 Free Software Foundation, Inc. @url{http://fsf.org/}

Everyone is permitted to copy and distribute verbatim copies of this
license document, but changing it is not allowed.
@c man end
@end ignore
@node Copying
@c man begin DESCRIPTION
@appendix GNU GENERAL PUBLIC LICENSE
@c The GNU General Public License.
@center Version 3, 29 June 2007

@c This file is intended to be included within another document,
@c hence no sectioning command or @node.

@display
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```

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versions.

Some devices are designed to deny users access to install or run modified versions of the software inside them, although the manufacturer can do so. This is fundamentally incompatible with the aim of protecting users' freedom to change the software. The systematic pattern of such abuse occurs in the area of products for individuals to use, which is precisely where it is most unacceptable. Therefore, we have designed this version of the GPL to prohibit the practice for those products. If such problems arise substantially in

other domains, we stand ready to extend this provision to those
domains in future versions of the GPL, as needed to protect the
freedom of users.

Finally, every program is threatened constantly by software patents.
States should not allow patents to restrict development and use of
software on general-purpose computers, but in those that do, we wish
to avoid the special danger that patents applied to a free program
could make it effectively proprietary.
To prevent this, the GPL
assures that patents cannot be used to render the program non-free.

The precise terms and conditions for copying, distribution and
modification follow.

@heading TERMS AND CONDITIONS

@enumerate 0
@item Definitions.

``This License'' refers to version 3 of the GNU General Public License.

``Copyright'' also means copyright-like laws that apply to other kinds
of works, such as semiconductor masks.

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License. Each licensee is addressed as ``you''. ``Licensees'' and
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To ``modify'' a work means to copy from or adapt all or part of the work
in a fashion requiring copyright permission, other than the making of
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the earlier work or a work ``based on'' the earlier work.

A ``covered work'' means either the unmodified Program or a work based
on the Program.

To ``propagate'' a
work means to do anything with it that, without
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infringement under applicable copyright law, except executing it on a
computer or modifying a private copy. Propagation includes copying,
distribution (with or without modification), making available to the
public, and in some countries other activities as well.

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parties to make or receive copies. Mere interaction with a user
through a computer network, with no transfer of a copy, is not

conveying.

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presents a list of user commands or options, such as a
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means a major essential component
(kernel, window system, and so on) of the specific operating system (if any) on which the executable work runs, or a compiler used to produce the work, or an object code interpreter used to run it.

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produce it from the Program, in the form of source code under the
terms of section 4, provided that you also meet all of these
conditions:

@enumerate a
@item
The work must carry prominent notices stating that you modified it,
and giving a relevant date.

@item
The work must carry prominent notices stating that it is released
under this License and any conditions added under section 7. This
requirement modifies the requirement in section 4 to ``keep intact all
notices''.

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You must license the entire work, as a whole, under this License to
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therefore apply, along with any applicable section 7 additional terms,
to the whole of the work, and all its parts, regardless of how they
are packaged. This License gives no permission to license the work in
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you have
separately received it.

@item
If the work has interactive user interfaces, each must display
Appropriate Legal Notices; however, if the Program has interactive

interfaces that do not display Appropriate Legal Notices, your work
need not make them do so.
@end enumerate

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works, which are not by their nature extensions of the covered work,
and which are not combined with it such as to form a larger program,
in or on a volume of a storage or distribution medium, is called an
``aggregate'' if the compilation and its resulting copyright are not
used to limit the access or legal rights of the compilation's users
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in an aggregate does not cause this License to apply to the other
parts of the aggregate.

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sections 4 and 5, provided that you also convey
 the machine-readable
Corresponding Source under the terms of this License, in one of these
ways:

@enumerate a
@item
Convey the object code in, or embodied in, a physical product
(including a physical distribution medium), accompanied by the
Corresponding Source fixed on a durable physical medium customarily
used for software interchange.

@item
Convey the object code in, or embodied in, a physical product
(including a physical distribution medium), accompanied by a written
offer, valid for at least three years and valid for as long as you
offer spare parts or customer support for that product model, to give
anyone who possesses the object code either (1) a copy of the
Corresponding Source for all the software in the product that is
covered by this License, on a durable physical medium customarily used
for software interchange, for a price no more than your reasonable
cost of physically performing this conveying of source, or (2) access
to copy the Corresponding Source from a network
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@item
Convey individual copies of the object code with a copy of the written
offer to provide the Corresponding Source. This alternative is
allowed only occasionally and noncommercially, and only if you
received the object code with such an offer, in accord with subsection
6b.

@item
Convey the object code by offering access from a designated place (gratis or for a charge), and offer equivalent access to the Corresponding Source in the same way through the same place at no further charge. You need not require recipients to copy the Corresponding Source along with the object code. If the place to copy the object code is a network server, the Corresponding Source may be on a different server (operated by you or a third party) that supports equivalent copying facilities, provided you maintain clear directions next to the object code saying where to find the Corresponding Source. Regardless of what server hosts the Corresponding Source, you remain obligated to
ensure that it is available for as long as needed to
satisfy these requirements.

@item
Convey the object code using peer-to-peer transmission, provided you inform other peers where the object code and Corresponding Source of the work are being offered to the general public at no charge under subsection 6d.

@end enumerate

A separable portion of the object code, whose source code is excluded from the Corresponding Source as a System Library, need not be included in conveying the object code work.

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[This is the first released version of the library GPL. It is
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This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

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If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also compile or link a "work that uses the Library" with the Library to produce a

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b) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

c) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

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1.76 net-tools 1.60

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If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the
object code for the work under the terms of Section 6.
Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

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a) Accompany
the work with the complete corresponding
machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system,

rather than copying library functions into the executable, and (2) will operate
properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

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1.82 libnss-mdns 0.10

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1.84 ncurses 6.1

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This script is compatible with the BSD install script, but was written from scratch. It can only install one file at a time, a restriction shared with many OS's install programs.

On Debian systems, the complete text of the GNU General
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-- vile: txtmode file-encoding=utf-8
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-- vile:txtmode fc=72
-- $Id: COPYING,v 1.6 2018/01/01 12:00:00 tom Exp $

1.85 sqlite 3.18.0

1.85.1 Available under license :

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1.86 perl 5.14.2

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The End

---
abstract: 'Build and install Perl modules'
author:

- 'Ken Williams <kwilliams@cpan.org>'
- "Development questions, bug reports, and patches should be sent to the\nModule-Build mailing list at <module-build@perl.org>."
build_requires:
File::Temp: 0.15
Test::Harness: 3.16
Test::More: 0.49
generated_by: 'Module::Build version 0.3608'
license: gpl
meta-spec:
url: http://module-build.sourceforge.net/META-spec-v1.4.html
version: 1.4
name: Module-Build
resources:
MailingList: mailto:module-build@perl.org
license: http://dev.perl.org/licenses/
repository: http://github.com/dagolden/module-build/
version: 3

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Julian Seward, jseward@bzip.org
bzip2/libbzip2 version 1.0.6 of 6 September 2010

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<one line to give the program's name and a brief idea of what it does.>
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when it starts in an interactive mode:

Gnomovision version 69, Copyright (C) 19xx name of author
Gnomovision comes with ABSOLUTELY NO WARRANTY; for details type `show w'.
This is free software, and you are welcome to redistribute it
under certain conditions; type `show c' for details.

The hypothetical commands `show w' and `show c' should show the
appropriate parts of the General Public License.
Of course, the
commands you use may be called something other than `show w' and `show
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program.

You should also get your employer (if you work as a programmer) or your
school, if any, to sign a "copyright disclaimer" for the program, if
necessary. Here a sample; alter the names:

Yoyodyne, Inc., hereby disclaims all copyright interest in the
program `Gnomovision' (a program to direct compilers to make passes
at assemblers) written by James Hacker.

<signature of Ty Coon>, 1 April 1989
Ty Coon, President of Vice

That's all there is to it!
#!perl

=head1 NAME

copyright.t

=head1 DESCRIPTION

Tests that the latest copyright years in the top-level README file and the
C<perl -v> output match each other.

If the test fails, update at least one of README and perl.c so that they match
reality.

```
Optionally you can pass the C<--now> option to check they are at the current
year. This isn't checked by default, so that it doesn't fail for people
working on older releases. It should be run before making a new release.

=cut

use strict;
use Config;
BEGIN { require './test.pl' }

if ( $Config{usecrosscompile} ) {
 skip_all( "Not all files are available during cross-compilation" );
}

my ($opt) = @ARGV;

my $readme_year = readme_year();
my $v_year = v_year();

# Check that both copyright dates are up-to-date, but only if requested, so
# that tests still pass for people intentionally working on older versions:
if ($opt eq '--now')
{
 my $current_year = (gmtime)[5] + 1900;
 is $v_year, $current_year, 'perl -v copyright includes current
 year';
 is $readme_year, $current_year, 'README copyright includes current year';
}

# Otherwise simply check that the two copyright dates match each other:
else
{
 is $readme_year, $v_year, 'README and perl -v copyright dates match';
}

done_testing;


sub readme_year
# returns the latest copyright year from the top-level README file
{

 open my $readme, '<', '../README' or die "Opening README failed: $!";

 # The copyright message is the first paragraph:
 local $/ = '';
 my $copyright_msg = <$readme>;
```

```
 my ($year) = $copyright_msg =~ /.*\b(\d{4,})/s
    or die "Year not found in README copyright message '$copyright_msg'";

 $year;
}


sub v_year
# returns the latest copyright year shown in perl -v
{

 my $output = runperl switches => ['-v'];
 my ($year) = $output =~ /copyright 1987.*\b(\d{4,})/i
    or die "Copyright statement not found in perl -v output '$output'";

 $year;
}
```

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If you develop a new program, and you want it to be of the greatest possible use to humanity, the best way to achieve this is to make it free software which everyone can redistribute and change under these terms.

To do so, attach the following notices to the program.
It is safest to
attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

<one line to give the program's name and a brief idea of what it does.>
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Also add information on how to contact you by electronic and paper mail.

If the program is interactive, make it output a short notice like this when it starts in an interactive mode:

Gnomovision version 69, Copyright (C) 19xx name of author
Gnomovision comes with ABSOLUTELY NO WARRANTY; for details type `show w'.
This is free software, and you are welcome to redistribute it
under certain conditions; type `show c' for details.

The hypothetical commands `show w' and `show c' should show the appropriate parts of the General Public License. Of course, the commands you use may be called something other than `show w' and `show c'; they could even be mouse-clicks or menu items--whatever suits your program.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the program, if

necessary. Here a sample; alter the names:

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 program `Gnomovision' (a program to direct compilers to make passes
 at assemblers) written by James Hacker.

 <signature of Ty Coon>, 1 April 1989
 Ty Coon, President of Vice

That's all there is to it!

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The End

1.87 attr 2.4.47

1.87.1 Available under license :

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If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file

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We call this license the "Lesser" General Public License because it does Less to protect the user's freedom than the ordinary General Public License. It also provides other free software developers Less of an advantage over competing non-free programs. These disadvantages are the reason we use the ordinary General Public License for many libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

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A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work which has been distributed under these terms. A "work based on the Library" means either the Library or any derivative work under copyright law: that is to say, a work containing the Library or a portion of it, either verbatim or with modifications and/or translated straightforwardly into another
language. (Hereinafter, translation is
included without limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

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2. You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

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b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.

c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.

d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library

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This option is useful when you wish to copy part of the code of
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4. You may copy and distribute the Library (or a portion or
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under the terms of Sections 1 and 2 above provided that you accompany
it with the complete corresponding
machine-readable source code, which
must be distributed under the terms of Sections 1 and 2 above on a
medium customarily used for software interchange.

If distribution of object code is made by offering access to copy
from a designated place, then offering equivalent access to copy the
source code from the same place satisfies the requirement to
distribute the source code, even though third parties are not
compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the
Library, but is designed to work with the Library by being compiled or
linked with it, is called a "work that uses the Library". Such a
work, in isolation, is not a derivative work of the Library, and
therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library
creates an executable that is a derivative of the Library (because it
contains portions of the Library), rather than a "work that uses
the
library". The executable is therefore covered by this License.
Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object
code for the work under the terms of Section 6.
Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

a) Accompany the
work with the complete corresponding
machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly
with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally
distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

7. You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any
other library facilities. This must be distributed under the terms of the

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b) Give prominent notice with the combined library of the fact
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1.89 coreutils 8.30

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The precise terms and conditions for copying, distribution and modification follow.

TERMS AND CONDITIONS

0. Definitions.

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A "covered work" means either the unmodified Program or a work based on the Program.

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extent that warranties are provided), that licensees may convey the work under this License, and how to view a copy of this License. If the interface presents a list of user commands or options, such as a menu, a prominent item in the list meets this criterion.

1. Source Code.

The "source code" for a work means the preferred form of the work for making modifications to it. "Object code" means any non-source form of a work.

A "Standard Interface" means an interface that either is an official standard defined by a recognized standards body, or, in the case of interfaces specified for a particular programming language, one that is widely used among developers working in that language.

The
"System Libraries" of an executable work include anything, other than the work as a whole, that (a) is included in the normal form of packaging a Major Component, but which is not part of that Major Component, and (b) serves only to enable use of the work with that Major Component, or to implement a Standard Interface for which an implementation is available to the public in source code form. A "Major Component", in this context, means a major essential component (kernel, window system, and so on) of the specific operating system (if any) on which the executable work runs, or a compiler used to produce the work, or an object code interpreter used to run it.

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available free
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beyond what the individual works permit. Inclusion of a covered work
in an aggregate does not cause this License to apply to the other
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6. Conveying Non-Source Forms.

You may convey a covered work in object code form under the terms of sections 4 and 5, provided that you also convey the machine-readable Corresponding Source under the terms of this License, in one of these ways:

a) Convey the object code in, or embodied in, a physical product (including a physical distribution medium), accompanied by the Corresponding Source fixed on a durable physical medium customarily used for software interchange.

b) Convey the object code in, or embodied in, a physical product (including a physical distribution medium), accompanied by a written offer, valid for at least three years and valid for as long as you offer spare parts or customer support for that product model, to give anyone who possesses the object code either (1) a copy of the Corresponding Source for all the software in the product that is covered by this License, on a durable physical medium customarily used for software interchange, for a price no more than your reasonable cost of physically performing this conveying of source, or (2) access to copy the Corresponding Source from a network server at no charge.

c) Convey individual copies of the object code with a copy of the written offer to provide the Corresponding Source. This alternative is allowed only occasionally and noncommercially, and only if you received the object code with such an offer, in accord with subsection 6b.

d) Convey the object code by offering access from a designated place (gratis or for a charge), and offer equivalent access to the Corresponding Source in the same way through the same place at no further charge. You need not require recipients to copy the Corresponding Source along with the object code. If the place to copy the object code is a network server, the Corresponding Source may be on a different server (operated by you or a third party) that supports equivalent copying facilities, provided you maintain clear directions next to the object code saying where to find the Corresponding Source. Regardless of what server hosts the Corresponding Source, you remain obligated to ensure that it is available for as long as needed to satisfy these requirements.

e) Convey the object code using peer-to-peer transmission, provided you inform other peers where the object code and Corresponding

Source of the work are being offered to the general public at no charge under subsection 6d.

A separable portion of the object code, whose source code is excluded from the Corresponding Source as a System Library, need not be included in conveying the object code work.

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1.93 lua 5.2.4

1.94 libusb 1.0.22

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(This file is under construction.) -*- text -*-

If you've contributed to gas and your name isn't listed here, it is
not meant as a slight. I just don't know about it. Email me,
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++++++++++++++++

Dean Elsner wrote the original gas for vax. [more details?]

Jay Fenlason maintained gas for a while, adding support for
gdb-specific debug information and the 68k series machines, most of
the preprocessing pass, and extensive changes in messages.c,
input-file.c, write.c.

K. Richard Pixley maintained gas for a while, adding various
enhancements and many bug fixes, including merging support for several

processors, breaking gas up to handle multiple object file format backends (including heavy rewrite, testing, an integration of the coff and b.out backends), adding configuration
including heavy testing and
verification of cross assemblers and file splits and renaming, converted gas to strictly ansi C including full prototypes, added support for m680[34]0 & cpu32, considerable work on i960 including a coff port (including considerable amounts of reverse engineering), a sparc opcode file rewrite, decstation, rs6000, and hp300hpux host ports, updated "know" assertions and made them work, much other reorganization, cleanup, and lint.

Ken Raeburn wrote the high-level BFD interface code to replace most of the code in format-specific I/O modules.

The original Vax-VMS support was contributed by David L. Kashtan. Eric Youngdale and Pat Rankin have done much work with it since.

The Intel 80386 machine description was written by Eliot Dresselhaus.

Minh Tran-Le at IntelliCorp contributed some AIX 386 support.

The Motorola 88k machine description was contributed by Devon Bowen of Buffalo University and Torbjorn Granlund of the Swedish Institute of Computer Science.

Keith
Knowles at the Open Software Foundation wrote the original MIPS back end (tc-mips.c, tc-mips.h), and contributed Rose format support that hasn't been merged in yet. Ralph Campbell worked with the MIPS code to support a.out format.

Support for the Zilog Z8k and Hitachi H8/300, H8/500 and SH processors (tc-z8k, tc-h8300, tc-h8500, tc-sh), and IEEE 695 object file format (obj-ieee), was written by Steve Chamberlain of Cygnus Solutions. Steve also modified the COFF back end (obj-coffbfd) to use BFD for some low-level operations, for use with the Hitachi, 29k and Zilog targets.

John Gilmore built the AMD 29000 support, added .include support, and simplified the configuration of which versions accept which pseudo-ops. He updated the 68k machine description so that Motorola's opcodes always produced fixed-size instructions (e.g. jsr), while synthetic instructions remained shrinkable (jbsr). John fixed many bugs, including true tested cross-compilation support, and one bug in relaxation
that took a week and required the proverbial one-bit fix.

Ian Lance Taylor of Cygnus Solutions merged the Motorola and MIT syntaxes for the 68k, completed support for some COFF targets (68k, i386 SVR3, and SCO Unix), wrote the ECOFF support based on Michael Meissner's mips-tfile program, wrote the PowerPC and RS/6000 support, and made a few other minor patches. He handled the binutils releases for versions 2.7 through 2.9.

David Edelsohn contributed fixes for the PowerPC and AIX support.

Steve Chamberlain made gas able to generate listings.

Support for the HP9000/300 was contributed by Glenn Engel of HP.

Support for ELF format files has been worked on by Mark Eichin of Cygnus Solutions (original, incomplete implementation), Pete Hoogenboom at the University of Utah (HPPA mainly), Michael Meissner of the Open Software Foundation (i386 mainly), and Ken Raeburn of Cygnus Solutions (sparc, initial 64-bit support).

Several engineers at Cygnus Solutions have also provided many small bug fixes and configuration enhancements.

The initial Alpha support was contributed by Carnegie-Mellon University. Additional work was done by Ken Raeburn of Cygnus Solutions. Richard Henderson then rewrote much of the Alpha support.

Ian Dall updated the support code for the National Semiconductor 32000 series, and added support for Mach 3 and NetBSD running on the PC532.

Klaus Kaempf ported the assembler and the binutils to openVMS/Alpha.

Steve Haworth contributed the support for the Texas Instruction c30 (tms320c30).

H.J. Lu has contributed many patches and much testing.

Alan Modra reworked much of the i386 backend, improving the error checking, updating the code, and improving the 16 bit support, using patches from the work of Martynas Kunigelis and H.J. Lu.

Many others have contributed large or small bugfixes and enhancements. If you've contributed significant work and are not mentioned on this list, and want to be, let us know. Some of the history has been lost; we aren't intentionally leaving anyone out.

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In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

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0. This License Agreement applies to any software library or other program which contains a notice placed by the copyright holder or other authorized party saying it may be distributed under the terms of this Lesser General Public License (also called "this License"). Each licensee is addressed as "you".

A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work which has been distributed under these terms. A "work based on the Library" means either the Library or any derivative work under copyright law: that is to say, a work containing the Library or a portion of it, either verbatim or with modifications and/or translated straightforwardly into another language. (Hereinafter, translation is

included without
limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

1. You may copy and distribute verbatim copies of the Library's complete source code as you receive it, in any medium, provided that you conspicuously and appropriately publish
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appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and distribute a copy of this License along with the Library.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

a) The modified work must itself be a software library.

b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.

c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.

d) If a facility in the modified
Library refers to a function or a
table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that,

in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves,
then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may opt to apply the terms of the ordinary GNU General Public License instead of this License
to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices.

Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy.

This option is useful when you wish to copy part of the code of

the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be
distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered
by this License.
Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any
executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

a) Accompany the work with the complete corresponding machine-readable
source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the
user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

e) Verify that the user has already received a copy of these

materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

7. You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

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<signature of Ty Coon>, 1 April 1990
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Licenses are intended to guarantee your freedom to share and change
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To protect your rights, we need to make restrictions that forbid
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or for a fee, you must give the recipients all the rights that we gave
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code. If you link a program with the library, you must provide
complete object files to the recipients so that they can relink them
with the library, after making

changes to the library and recompiling
it. And you must show them these terms so they know their rights.

Our method of protecting your rights has two steps: (1) copyright
the library, and (2) offer you this license which gives you legal
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Also, for each distributor's protection, we want to make certain
that everyone understands that there is no warranty for this free
library. If the library is modified by someone else and passed on, we
want its recipients to know that what they have is not the original
version, so that any problems introduced by others will not reflect on
the original authors' reputations.

Finally, any free program is threatened constantly by software
patents. We wish to avoid the danger that companies distributing free
software will individually obtain patent licenses, thus in effect
transforming the program into proprietary software. To prevent this,
we have made it clear that any patent must be licensed
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Most GNU software, including some libraries, is covered by the ordinary
GNU General Public License, which was designed for utility programs. This
license, the GNU Library General Public License, applies to certain
designated libraries. This license is quite different from the ordinary
one; be sure to read it in full, and don't assume that anything in it is
the same as in the ordinary license.

The reason we have a separate public license for some libraries is that
they blur the distinction we usually make between modifying or adding to a
program and simply using it. Linking a program with a library, without
changing the library, is in some sense simply using the library, and is
analogous to running a utility program or application program. However, in
a textual and legal sense, the linked executable is a combined work, a
derivative of the original library, and the ordinary General Public License
treats it as such.

Because
of this blurred distinction, using the ordinary General
Public License for libraries did not effectively promote software
sharing, because most developers did not use the libraries. We
concluded that weaker conditions might promote sharing better.

However, unrestricted linking of non-free programs would deprive the
users of those programs of all benefit from the free status of the
libraries themselves. This Library General Public License is intended to
permit developers of non-free programs to use free libraries, while

preserving your freedom as a user of such programs to change the free libraries that are incorporated in them. (We have not seen how to achieve this as regards changes in header files, but we have achieved it as regards changes in the actual functions of the Library.) The hope is that this will lead to faster development of free libraries.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, while the latter only works together with the library.

Note that it is possible for a library to be covered by the ordinary General Public License rather than by this special one.

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"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based

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2. You may modify your copy or copies of the Library or any portion
of it, thus forming a work based on the Library, and copy and
distribute such modifications or work under the terms of Section 1
above, provided that you also meet all of these conditions:

a) The modified work must
itself be a software library.

b) You must cause the files modified to carry prominent notices
stating that you changed the files and the date of any change.

c) You must cause the whole of the work to be licensed at no
charge to all third parties under the terms of this License.

d) If a facility in the modified Library refers to a function or a
table of data to be supplied by an application program that uses
the facility, other than as an argument passed when the facility
is invoked, then you must make a good faith effort to ensure that,
in the event an application does not supply such function or
table, the facility still operates, and performs whatever part of
its purpose remains meaningful.

(For example, a function in a library to compute square roots has
a purpose that is entirely well-defined independent of the
application. Therefore, Subsection 2d requires that any
application-supplied function or table used by this
function must
be optional: if the application does not supply it, the square
root function must still compute square roots.)

These requirements apply to the modified work as a whole. If

identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition,
mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices.

Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy.

This option is useful when you wish to copy part of the code of
the
Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to

distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also compile or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the

copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

c) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

d) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

7. You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on

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1.102 tcl 8.6.8

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1.108 json-c 0.9

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1.110 gnutls 3.3.5

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1.112 iproute 3.16.0

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1.113 cronie 1.5.2

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That's all there is to it!
/* Native-dependent code for modern AMD64 BSD's.

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  along with this program.  If not, see <http://www.gnu.org/licenses/>.  */

#ifndef AMD64_BSD_NAT_H
#define AMD64_BSD_NAT_H

#include "x86-bsd-nat.h"

/* Helper functions.  See definitions.  */
extern void amd64bsd_fetch_inferior_registers (struct regcache *regcache,
          int regnum);
extern
 void amd64bsd_store_inferior_registers (struct regcache *regcache,
          int regnum);

/* A prototype *BSD/AMD64 target.  */

template<typename BaseTarget>
class amd64_bsd_nat_target : public x86bsd_nat_target<BaseTarget>
{
public:
 void fetch_registers (struct regcache *regcache, int regnum) override
 { amd64bsd_fetch_inferior_registers (regcache, regnum); }

 void store_registers (struct regcache *regcache, int regnum) override
 { amd64bsd_store_inferior_registers (regcache, regnum); }
};

#endif /* i386-bsd-nat.h */
@ignore
@c Set file name and title for man page.
@setfilename gpl
@settitle GNU General Public License
@c man begin SEEALSO
gfdl(7), fsf-funding(7).
```

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your option) any later version.

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 should have received a copy of the GNU General Public License
along with this program. If not, see @url{http://www.gnu.org/licenses/}.
@end smallexample

Also add information on how to contact you by electronic and paper mail.

If the program does terminal interaction, make it output a short
notice like this when it starts in an interactive mode:

@smallexample
@var{program} Copyright (C) @var{year} @var{name of author}
This program comes with ABSOLUTELY NO WARRANTY; for details type @samp{show w}.
This is free software, and you are welcome to redistribute it
under certain conditions; type @samp{show c} for details.
@end smallexample

The hypothetical commands @samp{show w} and @samp{show c} should show
the appropriate parts of the General Public License. Of course, your
program's commands might be different; for a GUI interface, you would
use an ``about box''.

You should also get your employer (if you work as a programmer) or school,
if any, to sign a ``copyright disclaimer''
 for the program, if necessary.
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library, you may consider it more useful to permit linking proprietary
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the GNU Lesser General Public License instead of this License. But
first, please read @url{http://www.gnu.org/philosophy/why-not-lgpl.html}.
@c man end
   GNU LIBRARY GENERAL PUBLIC LICENSE
      Version 2, June 1991

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[This is the first released version of the library GPL. It is
numbered 2 because it goes with version 2 of the ordinary GPL.]

Preamble

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freedom to share and change it. By contrast, the GNU General Public
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code. If you link a program with the library, you must provide
complete object files to the recipients so that they can relink them
with the library, after making changes
to the library and recompiling
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Because of this blurred distinction, using the ordinary General Public License for libraries did not effectively promote software sharing, because most developers did not use the libraries. We concluded that weaker conditions might promote sharing better.

However, unrestricted linking of non-free programs would deprive the users of those programs of all benefit from the free status of the libraries themselves. This Library General Public License is intended to permit developers of non-free programs to use free libraries, while preserving your freedom as a user of such programs to change the free libraries that are incorporated in them. (We have not seen how to achieve this as regards changes in header files, but we have achieved it as regards changes in the actual functions of the Library.) The hope is that this will lead to faster development of free libraries.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference

between a
"work based on the library" and a "work that uses the library". The former contains code derived from the library, while the latter only works together with the library.

Note that it is possible for a library to be covered by the ordinary General Public License rather than by this special one.

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The "Library", below, refers to any such software library or work which has been distributed
under these terms. A "work based on the
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Thus, it is not the intent of this section to claim rights or contest
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exercise the right to control the distribution of derivative or
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In addition,
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This option is useful when you wish to copy part of the code of
the
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If distribution of object code is made by offering access to copy
from a designated place, then offering equivalent access to copy the
source code from the same place satisfies the requirement to
distribute the source code, even though third parties are not
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If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of
the object
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END OF TERMS AND CONDITIONS

Appendix: How to Apply These Terms to Your New Libraries

If you develop a new library, and you want it to be of the greatest
possible use to the public, we recommend making it free software that
everyone can redistribute and change. You can do so by permitting
redistribution under these terms (or, alternatively, under the terms of the
ordinary General Public License).

To apply these terms, attach the following notices to the library. It is
safest to attach them to the start of each source file to most effectively
convey the exclusion of warranty; and each file should have at least the
"copyright" line and a pointer to where the full notice is found.

<one line to give the library's name and a brief idea of what it does.>
Copyright (C) <year>
<name of author>

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```
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Also add information on how to contact you by electronic and paper mail.

You should also get your employer (if you work as a programmer) or your
school, if any, to sign a "copyright disclaimer" for the library, if
necessary.  Here is a sample; alter
 the names:

 Yoyodyne, Inc., hereby disclaims all copyright interest in the
 library `Frob' (a library for tweaking knobs) written by James Random Hacker.

 <signature of Ty Coon>, 1 April 1990
 Ty Coon, President of Vice

That's all there is to it!
BEGIN {
  FS="\"";
  print "/* ==> Do not modify this file!!  " \
 "-*- buffer-read-only: t -*- vi" \
 ":set ro:";
  print "   It is created automatically by copying.awk.";
  print "   Modify copying.awk instead.  <== */";
  print ""
  print "#include \"defs.h\""
  print "#include \"command.h\""
  print "#include \"gdbcmd.h\""
  print ""
  print "static void show_copying_command (const char *, int);"
  print ""
  print "static void show_warranty_command (const char *, int);"
  print ""
  print "static void";
  print "show_copying_command (const char *ignore, int from_tty)";
  print "{";
 }
NR == 1,/^[  ]*15\. Disclaimer of Warranty\.[  ]*$/ {
  if ($0 ~ //)
    {
      printf "  printf_filtered (\"\\n\");\n";
```

```
    }
  else if ($0 !~ /^[  ]*15\. Disclaimer of Warranty\.[  ]*$/)
    {
      printf "  printf_filtered (\"";
      for (i = 1; i < NF; i++)
  printf "%s\\\"", $i;
      printf "%s\\n\");\n", $NF;
    }
 }
/^[  ]*15\. Disclaimer of Warranty\.[  ]*$/ {

  print "}";
  print "";
  print "static void";
  print "show_warranty_command (const char *ignore, int from_tty)";
  print "{";
 }
/^[  ]*15\. Disclaimer of Warranty\.[  ]*$/, /^[  ]*END OF TERMS AND CONDITIONS[  ]*$/{
  if (! ($0 ~ /^[  ]*END OF TERMS AND CONDITIONS[  ]*$/))
    {
      printf "  printf_filtered (\"";
      for (i = 1; i < NF; i++)
  printf "%s\\\"", $i;
      printf "%s\\n\");\n", $NF;
    }
 }
END {
  print "}";
  print "";
  print "void"
  print "_initialize_copying (void)";
  print "{";
  print "  add_cmd (\"copying\", no_set_class, show_copying_command,";
  print "    _(\"Conditions for redistributing copies of GDB.\"),";
  print "    &showlist);";
  print "  add_cmd (\"warranty\", no_set_class, show_warranty_command,";
  print "    _(\"Various kinds of warranty you do not have.\"),";
  print "    &showlist);";
  print "";
  print "  /* For old-timers, allow \"info copying\", etc.  */";
  print "  add_info (\"copying\", show_copying_command,";

  print "     _(\"Conditions for redistributing copies of GDB.\"));";
  print "  add_info (\"warranty\", show_warranty_command,";
  print "     _(\"Various kinds of warranty you do not have.\"));";
  print "}";
 }
```

```
/* BSD Kernel Data Access Library (libkvm) interface.

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  This file is part of GDB.

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  (at your option) any later version.

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  GNU General Public License for more details.

  You should have received a copy of the GNU General Public License
  along with this program.  If not, see <http://www.gnu.org/licenses/>.  */

#define _KMEMUSER
#include "defs.h"
#include "cli/cli-cmds.h"
#include "command.h"
#include "frame.h"
#include "regcache.h"
#include "target.h"
#include "value.h"
#include "gdbcore.h"  /* for get_exec_file */
#include
 "gdbthread.h"

#include <fcntl.h>
#include <kvm.h>
#ifdef HAVE_NLIST_H
#include <nlist.h>
#endif
#include <paths.h>
#include "readline/readline.h"
#include <sys/param.h>
#include <sys/proc.h>
#ifdef HAVE_SYS_USER_H
#include <sys/user.h>
#endif

#include "bsd-kvm.h"

/* Kernel memory device file.  */
static const char *bsd_kvm_corefile;
```

```
/* Kernel memory interface descriptor.  */
static kvm_t *core_kd;

/* Address of process control block.  */
static struct pcb *bsd_kvm_paddr;

/* Pointer to architecture-specific function that reconstructs the
  register state from PCB and supplies it to REGCACHE.  */
static int (*bsd_kvm_supply_pcb)(struct regcache *regcache, struct pcb *pcb);

/* This is the ptid we use while we're connected to kvm.  The kvm
  target currently doesn't export any view of the running processes,
  so this represents the kernel task.  */
static ptid_t bsd_kvm_ptid;

/* The libkvm target.  */

static const target_info bsd_kvm_target_info = {
 "kvm",
 N_("Kernel
 memory interface"),
 N_("Use a kernel virtual memory image as a target.\n\
Optionally specify the filename of a core dump.")
};

class bsd_kvm_target final : public target_ops
{
public:
 bsd_kvm_target ()
 { this->to_stratum = process_stratum; }

 const target_info &info () const override
 { return bsd_kvm_target_info; }

 void close () override;

 void fetch_registers (struct regcache *, int) override;
 enum target_xfer_status xfer_partial (enum target_object object,
    const char *annex,
    gdb_byte *readbuf,
    const gdb_byte *writebuf,
    ULONGEST offset, ULONGEST len,
    ULONGEST *xfered_len) override;

 void files_info () override;
 bool thread_alive (ptid_t ptid) override;
 const char *pid_to_str (ptid_t) override;
```

```
 bool has_memory () override { return true; }
 bool has_stack () override { return true; }
 bool has_registers () override { return true; }
};

/* Target ops for libkvm interface.  */
static bsd_kvm_target bsd_kvm_ops;

static void
bsd_kvm_target_open
 (const char *arg, int from_tty)
{
 char errbuf[_POSIX2_LINE_MAX];
 char *execfile = NULL;
 kvm_t *temp_kd;
 char *filename = NULL;

 target_preopen (from_tty);

 if (arg)
   {
     char *temp;

     filename = tilde_expand (arg);
     if (filename[0] != '/')
 {
   temp = concat (current_directory, "/", filename, (char *)NULL);
   xfree (filename);
   filename = temp;
 }
   }

 execfile = get_exec_file (0);
 temp_kd = kvm_openfiles (execfile, filename, NULL,
      write_files ? O_RDWR : O_RDONLY, errbuf);
 if (temp_kd == NULL)
   error (("%s"), errbuf);

 bsd_kvm_corefile = filename;
 unpush_target (&bsd_kvm_ops);
 core_kd = temp_kd;
 push_target (&bsd_kvm_ops);

 add_thread_silent (bsd_kvm_ptid);
 inferior_ptid = bsd_kvm_ptid;

 target_fetch_registers (get_current_regcache (), -1);
```

```
 reinit_frame_cache ();
 print_stack_frame (get_selected_frame (NULL), 0, SRC_AND_LOC, 1);
}

void
bsd_kvm_target::close ()
{
 if (core_kd)
   {
    if (kvm_close (core_kd)
 == -1)
 warning (("%s"), kvm_geterr(core_kd));
    core_kd = NULL;
   }

 inferior_ptid = null_ptid;
 discard_all_inferiors ();
}

static LONGEST
bsd_kvm_xfer_memory (CORE_ADDR addr, ULONGEST len,
      gdb_byte *readbuf, const gdb_byte *writebuf)
{
 ssize_t nbytes = len;

 if (readbuf)
  nbytes = kvm_read (core_kd, addr, readbuf, nbytes);
 if (writebuf && nbytes > 0)
  nbytes = kvm_write (core_kd, addr, writebuf, nbytes);
 return nbytes;
}

enum target_xfer_status
bsd_kvm_target::xfer_partial (enum target_object object,
        const char *annex, gdb_byte *readbuf,
        const gdb_byte *writebuf,
        ULONGEST offset, ULONGEST len, ULONGEST *xfered_len)
{
 switch (object)
  {
  case TARGET_OBJECT_MEMORY:
    {
 LONGEST ret = bsd_kvm_xfer_memory (offset, len, readbuf, writebuf);

 if (ret < 0)
  return TARGET_XFER_E_IO;
 else if (ret == 0)
```

```
  return TARGET_XFER_EOF;
 else
  {
   *xfered_len = (ULONGEST) ret;
   return TARGET_XFER_OK;
  }

 }

  default:
   return TARGET_XFER_E_IO;
  }
}

void
bsd_kvm_target::files_info ()
{
 if (bsd_kvm_corefile && strcmp (bsd_kvm_corefile, _PATH_MEM) != 0)
  printf_filtered (_("\tUsing the kernel crash dump %s.\n"),
      bsd_kvm_corefile);
 else
  printf_filtered (_("\tUsing the currently running kernel.\n"));
}

/* Fetch process control block at address PADDR.  */

static int
bsd_kvm_fetch_pcb (struct regcache *regcache, struct pcb *paddr)
{
 struct pcb pcb;

 if (kvm_read (core_kd, (unsigned long) paddr, &pcb, sizeof pcb) == -1)
  error (("%s"), kvm_geterr (core_kd));

 gdb_assert (bsd_kvm_supply_pcb);
 return bsd_kvm_supply_pcb (regcache, &pcb);
}

void
bsd_kvm_target::fetch_registers (struct regcache *regcache, int regnum)
{
 struct nlist nl[2];

 if (bsd_kvm_paddr)
  {
   bsd_kvm_fetch_pcb (regcache, bsd_kvm_paddr);
   return;
  }
```

```
/* On dumping core, BSD kernels store the faulting context (PCB)
   in the variable "dumppcb".  */
memset (nl, 0,
sizeof nl);
nl[0].n_name = "_dumppcb";

if (kvm_nlist (core_kd, nl) == -1)
  error (("%s"), kvm_geterr (core_kd));

if (nl[0].n_value != 0)
  {
    /* Found dumppcb.  If it contains a valid context, return
 immediately.  */
    if (bsd_kvm_fetch_pcb (regcache, (struct pcb *) nl[0].n_value))
return;
  }

/* Traditional BSD kernels have a process proc0 that should always
   be present.  The address of proc0's PCB is stored in the variable
   "proc0paddr".  */

memset (nl, 0, sizeof nl);
nl[0].n_name = "_proc0paddr";

if (kvm_nlist (core_kd, nl) == -1)
  error (("%s"), kvm_geterr (core_kd));

if (nl[0].n_value != 0)
  {
    struct pcb *paddr;

    /* Found proc0paddr.  */
    if (kvm_read (core_kd, nl[0].n_value, &paddr, sizeof paddr) == -1)
error (("%s"), kvm_geterr (core_kd));

    bsd_kvm_fetch_pcb (regcache, paddr);
    return;
  }

#ifdef HAVE_STRUCT_THREAD_TD_PCB
 /* In FreeBSD kernels for 5.0-RELEASE and later, the PCB no longer

   lives in `struct proc' but in `struct thread'.  The `struct
   thread' for the initial thread for proc0 can be found in the
   variable "thread0".  */

 memset (nl, 0, sizeof nl);
```

```
 nl[0].n_name = "_thread0";

 if (kvm_nlist (core_kd, nl) == -1)
   error (("%s"), kvm_geterr (core_kd));

 if (nl[0].n_value != 0)
   {
     struct pcb *paddr;

     /* Found thread0.  */
     nl[0].n_value += offsetof (struct thread, td_pcb);
     if (kvm_read (core_kd, nl[0].n_value, &paddr, sizeof paddr) == -1)
 error (("%s"), kvm_geterr (core_kd));

     bsd_kvm_fetch_pcb (regcache, paddr);
     return;
   }
#endif

 /* i18n: PCB == "Process Control Block".  */
 error (_("Cannot find a valid PCB"));
}


/* Kernel memory interface commands.  */
struct cmd_list_element *bsd_kvm_cmdlist;

static void
bsd_kvm_cmd (const char *arg, int fromtty)
{
 /* ??? Should this become an alias for "target kvm"?  */
}

#ifndef HAVE_STRUCT_THREAD_TD_PCB

static void
bsd_kvm_proc_cmd (const char *arg,
 int fromtty)
{
 CORE_ADDR addr;

 if (arg == NULL)
   error_no_arg (_("proc address"));

 if (core_kd == NULL)
   error (_("No kernel memory image."));

 addr = parse_and_eval_address (arg);
```

```
#ifdef HAVE_STRUCT_LWP
 addr += offsetof (struct lwp, l_addr);
#else
 addr += offsetof (struct proc, p_addr);
#endif

 if (kvm_read (core_kd, addr, &bsd_kvm_paddr, sizeof bsd_kvm_paddr) == -1)
   error (("%s"), kvm_geterr (core_kd));

 target_fetch_registers (get_current_regcache (), -1);

 reinit_frame_cache ();
 print_stack_frame (get_selected_frame (NULL), 0, SRC_AND_LOC, 1);
}

#endif

static void
bsd_kvm_pcb_cmd (const char *arg, int fromtty)
{
 if (arg == NULL)
   /* i18n: PCB == "Process Control Block".  */
   error_no_arg (_("pcb address"));

 if (core_kd == NULL)
   error (_("No kernel memory image."));

 bsd_kvm_paddr = (struct pcb *)(u_long) parse_and_eval_address (arg);

 target_fetch_registers (get_current_regcache (), -1);

 reinit_frame_cache ();
 print_stack_frame
 (get_selected_frame (NULL), 0, SRC_AND_LOC, 1);
}

bool
bsd_kvm_target::thread_alive (ptid_t ptid)
{
 return true;
}

const char *
bsd_kvm_target::pid_to_str (ptid_t ptid)
{
 static char buf[64];
 xsnprintf (buf, sizeof buf, "<kvm>");
 return buf;
```

```
}

/* Add the libkvm interface to the list of all possible targets and
  register CUPPLY_PCB as the architecture-specific process control
  block interpreter.  */

void
bsd_kvm_add_target (int (*supply_pcb)(struct regcache *, struct pcb *))
{
 gdb_assert (bsd_kvm_supply_pcb == NULL);
 bsd_kvm_supply_pcb = supply_pcb;

 add_target (bsd_kvm_target_info, bsd_kvm_target_open);

 add_prefix_cmd ("kvm", class_obscure, bsd_kvm_cmd, _("\
Generic command for manipulating the kernel memory interface."),
    &bsd_kvm_cmdlist, "kvm ", 0, &cmdlist);

#ifndef HAVE_STRUCT_THREAD_TD_PCB
 add_cmd ("proc", class_obscure, bsd_kvm_proc_cmd,
    _("Set current context from proc address"), &bsd_kvm_cmdlist);
#endif
 add_cmd ("pcb", class_obscure,
 bsd_kvm_pcb_cmd,
    /* i18n: PCB == "Process Control Block".  */
    _("Set current context from pcb address"), &bsd_kvm_cmdlist);

 /* Some notes on the ptid usage on this target.

    The pid field represents the kvm inferior instance.  Currently,
    we don't support multiple kvm inferiors, but we start at 1
    anyway.  The lwp field is set to != 0, in case the core wants to
    refer to the whole kvm inferior with ptid(1,0,0).

    If kvm is made to export running processes as gdb threads,
    the following form can be used:
    ptid (1, 1, 0) -> kvm inferior 1, in kernel
    ptid (1, 1, 1) -> kvm inferior 1, process 1
    ptid (1, 1, 2) -> kvm inferior 1, process 2
    ptid (1, 1, n) -> kvm inferior 1, process n  */

 bsd_kvm_ptid = ptid_t (1, 1, 0);
}
/* Native-dependent code for x86 BSD's.

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```

```
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#ifndef X86_BSD_NAT_H
#define X86_BSD_NAT_H

#include "x86-nat.h"

/* Low level x86 XSAVE info.  */
extern size_t x86bsd_xsave_len;

/* A prototype *BSD/x86 target.  */

template<typename BaseTarget>
class x86bsd_nat_target
 : public x86_nat_target<BaseTarget>
{
 using base_class = x86_nat_target<BaseTarget>;
public:
#ifdef HAVE_PT_GETDBREGS
 void mourn_inferior () override
 {
   x86_cleanup_dregs ();
   base_class::mourn_inferior ();
 }
#endif /* HAVE_PT_GETDBREGS */
};

#endif /* x86-bsd-nat.h */
/* Native-dependent code for modern i386 BSD's.

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```
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  along with this program.  If not, see <http://www.gnu.org/licenses/>.  */

#ifndef I386_BSD_NAT_H
#define I386_BSD_NAT_H

/* Helper functions.  See definitions.  */
extern void i386bsd_fetch_inferior_registers (struct regcache *regcache,
        int regnum);
extern void i386bsd_store_inferior_registers
 (struct regcache *regcache,
        int regnum);

/* A prototype *BSD/i386 target.  */

template<typename BaseTarget>
class i386_bsd_nat_target : public x86bsd_nat_target<BaseTarget>
{
public:
 void fetch_registers (struct regcache *regcache, int regnum) override
 { i386bsd_fetch_inferior_registers (regcache, regnum); }

 void store_registers (struct regcache *regcache, int regnum) override
 { i386bsd_store_inferior_registers (regcache, regnum); }
};

#endif /* i386-bsd-nat.h */
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[This is the first released version of the library GPL.  It is
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```

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Version 3, 29 June 2007

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```
"""copyright.py

This script updates the list of years in the copyright notices in
most files maintained by the GDB project.

Usage: cd src/gdb && python copyright.py

Always review the output of this script before committing it!
A useful command to review
 the output is:
  % filterdiff -x \*.c -x \*.cc -x \*.h -x \*.exp updates.diff
This removes the bulk of the changes which are most likely to be correct.
"""

import datetime
import os
import os.path
import subprocess


def get_update_list():
  """Return the list of files to update.

  Assumes that the current working directory when called is the root
  of the GDB source tree (NOT the gdb/ subdirectory!).  The names of
  the files are relative to that root directory.
  """
  result = []
  for gdb_dir in ('gdb', 'sim', 'include/gdb'):
     for root, dirs, files in os.walk(gdb_dir, topdown=True):
        for dirname in dirs:
           reldirname = "%s/%s" % (root, dirname)
           if (dirname in EXCLUDE_ALL_LIST
              or reldirname in EXCLUDE_LIST
              or reldirname in NOT_FSF_LIST
              or reldirname in BY_HAND):
              # Prune this directory from our search list.
              dirs.remove(dirname)
         for filename in files:
           relpath = "%s/%s" % (root, filename)
           if (filename in EXCLUDE_ALL_LIST
              or relpath in EXCLUDE_LIST
              or relpath in NOT_FSF_LIST
              or relpath in BY_HAND):
              # Ignore this file.
              pass
           else:
              result.append(relpath)
```

```
  return result


def update_files(update_list):
  """Update the copyright header of the files in the given list.

  We use gnulib's update-copyright script for that.
  """
  # We want to use year intervals in the copyright notices, and
  # all years should be collapsed to one single year interval,
  # even if there are "holes" in the list of years found in the
  # original copyright notice (OK'ed by the FSF, case [gnu.org #719834]).
  os.environ['UPDATE_COPYRIGHT_USE_INTERVALS'] = '2'

  # Perform the update, and save the output in a string.
  update_cmd
 = ['bash', 'gdb/gnulib/import/extra/update-copyright']
  update_cmd += update_list

  p = subprocess.Popen(update_cmd, stdout=subprocess.PIPE,
                       stderr=subprocess.STDOUT)
  update_out = p.communicate()[0]

  # Process the output.  Typically, a lot of files do not have
  # a copyright notice :-(.  The update-copyright script prints
  # a well defined warning when it did not find the copyright notice.
  # For each of those, do a sanity check and see if they may in fact
  # have one.  For the files that are found not to have one, we filter
  # the line out from the output, since there is nothing more to do,
  # short of looking at each file and seeing which notice is appropriate.
  # Too much work! (~4,000 files listed as of 2012-01-03).
  update_out = update_out.splitlines()
  warning_string = ': warning: copyright statement not found'
  warning_len = len(warning_string)

  for line in update_out:
     if line.endswith('\n'):

      line = line[:-1]
     if line.endswith(warning_string):
        filename = line[:-warning_len]
        if may_have_copyright_notice(filename):
           print line
     else:
        # Unrecognized file format. !?!
        print "*** " + line
```

```
def may_have_copyright_notice(filename):
  """Check that the given file does not seem to have a copyright notice.

  The filename is relative to the root directory.
  This function assumes that the current working directory is that root
  directory.

  The algorigthm is fairly crude, meaning that it might return
  some false positives.  I do not think it will return any false
  negatives...  We might improve this function to handle more
  complex cases later...
  """
  # For now, it may have a copyright notice if we find the word
  # "Copyright" at the (reasonable) start of the given file, say
  # 50 lines...
  MAX_LINES = 50

  fd = open(filename)

  lineno = 1
  for line in fd:
      if 'Copyright' in line:
         return True
      lineno += 1
      if lineno > 50:
         return False
  return False


def main ():
  """The main subprogram."""
  if not os.path.isfile("gnulib/import/extra/update-copyright"):
     print "Error: This script must be called from the gdb directory."
  root_dir = os.path.dirname(os.getcwd())
  os.chdir(root_dir)

  update_list = get_update_list()
  update_files (update_list)

  # Remind the user that some files need to be updated by HAND...

  if MULTIPLE_COPYRIGHT_HEADERS:
     print
     print("\033[31m"
           "REMINDER: Multiple copyright headers must be updated by hand:"
           "\033[0m")
     for filename in MULTIPLE_COPYRIGHT_HEADERS:
        print "  ", filename
```

```
  if BY_HAND:
     print
     print "\033[31mREMINDER: The following files must be updated by hand." \
          "\033[0m"
     for filename in BY_HAND:
        print "  ", filename

################################################################################
#
#
 Some constants, placed at the end because they take up a lot of room.
# The actual value of these constants is not significant to the understanding
# of the script.
#
################################################################################

# Files which should not be modified, either because they are
# generated, non-FSF, or otherwise special (e.g. license text,
# or test cases which must be sensitive to line numbering).
#
# Filenames are relative to the root directory.
EXCLUDE_LIST = (
  'gdb/nat/glibc_thread_db.h',
  'gdb/CONTRIBUTE',
  'gdb/gnulib/import'
)

# Files which should not be modified, either because they are
# generated, non-FSF, or otherwise special (e.g. license text,
# or test cases which must be sensitive to line numbering).
#
# Matches any file or directory name anywhere.  Use with caution.
# This is mostly for files that can be found in multiple directories.
# Eg: We want all
 files named COPYING to be left untouched.

EXCLUDE_ALL_LIST = (
  "COPYING", "COPYING.LIB", "CVS", "configure", "copying.c",
  "fdl.texi", "gpl.texi", "aclocal.m4",
)

# The list of files to update by hand.
BY_HAND = (
  # Nothing at the moment :-).
)

# Files containing multiple copyright headers.  This script is only
```

```
# fixing the first one it finds, so we need to finish the update
# by hand.
MULTIPLE_COPYRIGHT_HEADERS = (
  "gdb/doc/gdb.texinfo",
  "gdb/doc/refcard.tex",
  "gdb/gdbarch.sh",
)

# The list of file which have a copyright, but not head by the FSF.
# Filenames are relative to the root directory.
NOT_FSF_LIST = (
  "gdb/exc_request.defs",
  "gdb/gdbtk",
  "gdb/testsuite/gdb.gdbtk/",
  "sim/arm/armemu.h", "sim/arm/armos.c", "sim/arm/gdbhost.c",
  "sim/arm/dbg_hif.h", "sim/arm/dbg_conf.h", "sim/arm/communicate.h",
  "sim/arm/armos.h", "sim/arm/armcopro.c", "sim/arm/armemu.c",
  "sim/arm/kid.c", "sim/arm/thumbemu.c", "sim/arm/armdefs.h",
  "sim/arm/armopts.h",
 "sim/arm/dbg_cp.h", "sim/arm/dbg_rdi.h",
  "sim/arm/parent.c", "sim/arm/armsupp.c", "sim/arm/armrdi.c",
  "sim/arm/bag.c", "sim/arm/armvirt.c", "sim/arm/main.c", "sim/arm/bag.h",
  "sim/arm/communicate.c", "sim/arm/gdbhost.h", "sim/arm/armfpe.h",
  "sim/arm/arminit.c",
  "sim/common/cgen-fpu.c", "sim/common/cgen-fpu.h",
  "sim/common/cgen-accfp.c",
  "sim/mips/m16run.c", "sim/mips/sim-main.c",
  "sim/moxie/moxie-gdb.dts",
  # Not a single file in sim/ppc/ appears to be copyright FSF :-(.
  "sim/ppc/filter.h", "sim/ppc/gen-support.h", "sim/ppc/ld-insn.h",
  "sim/ppc/hw_sem.c", "sim/ppc/hw_disk.c", "sim/ppc/idecode_branch.h",
  "sim/ppc/sim-endian.h", "sim/ppc/table.c", "sim/ppc/hw_core.c",
  "sim/ppc/gen-support.c", "sim/ppc/gen-semantics.h", "sim/ppc/cpu.h",
  "sim/ppc/sim_callbacks.h", "sim/ppc/RUN", "sim/ppc/Makefile.in",
  "sim/ppc/emul_chirp.c", "sim/ppc/hw_nvram.c", "sim/ppc/dc-test.01",
  "sim/ppc/hw_phb.c", "sim/ppc/hw_eeprom.c", "sim/ppc/bits.h",
   "sim/ppc/hw_vm.c", "sim/ppc/cap.h", "sim/ppc/os_emul.h",
  "sim/ppc/options.h", "sim/ppc/gen-idecode.c", "sim/ppc/filter.c",
  "sim/ppc/corefile-n.h", "sim/ppc/std-config.h", "sim/ppc/ld-decode.h",
  "sim/ppc/filter_filename.h", "sim/ppc/hw_shm.c",
  "sim/ppc/pk_disklabel.c", "sim/ppc/dc-simple", "sim/ppc/misc.h",
  "sim/ppc/device_table.h", "sim/ppc/ld-insn.c", "sim/ppc/inline.c",
  "sim/ppc/emul_bugapi.h", "sim/ppc/hw_cpu.h", "sim/ppc/debug.h",
  "sim/ppc/hw_ide.c", "sim/ppc/debug.c", "sim/ppc/gen-itable.h",
  "sim/ppc/interrupts.c", "sim/ppc/hw_glue.c", "sim/ppc/emul_unix.c",
  "sim/ppc/sim_calls.c", "sim/ppc/dc-complex", "sim/ppc/ld-cache.c",
  "sim/ppc/registers.h", "sim/ppc/dc-test.02", "sim/ppc/options.c",
  "sim/ppc/igen.h", "sim/ppc/registers.c", "sim/ppc/device.h",
```

```
  "sim/ppc/emul_chirp.h", "sim/ppc/hw_register.c", "sim/ppc/hw_init.c",
  "sim/ppc/sim-endian-n.h", "sim/ppc/filter_filename.c",
  "sim/ppc/bits.c", "sim/ppc/idecode_fields.h",
"sim/ppc/hw_memory.c",
  "sim/ppc/misc.c", "sim/ppc/double.c", "sim/ppc/psim.h",
  "sim/ppc/hw_trace.c", "sim/ppc/emul_netbsd.h", "sim/ppc/psim.c",
  "sim/ppc/ppc-instructions", "sim/ppc/tree.h", "sim/ppc/README",
  "sim/ppc/gen-icache.h", "sim/ppc/gen-model.h", "sim/ppc/ld-cache.h",
  "sim/ppc/mon.c", "sim/ppc/corefile.h", "sim/ppc/vm.c",
  "sim/ppc/INSTALL", "sim/ppc/gen-model.c", "sim/ppc/hw_cpu.c",
  "sim/ppc/corefile.c", "sim/ppc/hw_opic.c", "sim/ppc/gen-icache.c",
  "sim/ppc/events.h", "sim/ppc/os_emul.c", "sim/ppc/emul_generic.c",
  "sim/ppc/main.c", "sim/ppc/hw_com.c", "sim/ppc/gen-semantics.c",
  "sim/ppc/emul_bugapi.c", "sim/ppc/device.c", "sim/ppc/emul_generic.h",
  "sim/ppc/tree.c", "sim/ppc/mon.h", "sim/ppc/interrupts.h",
  "sim/ppc/cap.c", "sim/ppc/cpu.c", "sim/ppc/hw_phb.h",
  "sim/ppc/device_table.c", "sim/ppc/lf.c", "sim/ppc/lf.c",
  "sim/ppc/dc-stupid", "sim/ppc/hw_pal.c", "sim/ppc/ppc-spr-table",
  "sim/ppc/emul_unix.h", "sim/ppc/words.h",
 "sim/ppc/basics.h",
  "sim/ppc/hw_htab.c", "sim/ppc/lf.h", "sim/ppc/ld-decode.c",
  "sim/ppc/sim-endian.c", "sim/ppc/gen-itable.c",
  "sim/ppc/idecode_expression.h", "sim/ppc/table.h", "sim/ppc/dgen.c",
  "sim/ppc/events.c", "sim/ppc/gen-idecode.h", "sim/ppc/emul_netbsd.c",
  "sim/ppc/igen.c", "sim/ppc/vm_n.h", "sim/ppc/vm.h",
  "sim/ppc/hw_iobus.c", "sim/ppc/inline.h",
  "sim/testsuite/sim/bfin/s21.s", "sim/testsuite/sim/mips/mips32-dsp2.s",
)

if __name__ == "__main__":
  main()
```

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. The file `src/libs/snprintf/snprintf.c', written by Mark Martinec <mark.martinec@ijs.si>.

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src/preproc/grn/gprint.h
src/preproc/grn/hdb.cpp
src/preproc/grn/hgraph.cpp
src/preproc/grn/hpoint.cpp
src/preproc/grn/main.cpp

. The `gxditview' output device. It is based on X11's `xditview' program and thus has the X license.

src/devices/xditview/DESC.in
src/devices/xditview/Dvi.c
src/devices/xditview/Dvi.h
src/devices/xditview/DviP.h
src/devices/xditview/FontMap
src/devices/xditview/GXditview.ad
src/devices/xditview/Menu.h
src/devices/xditview/ad2c
src/devices/xditview/device.c
src/devices/xditview/device.h
src/devices/xditview/draw.c
src/devices/xditview/font.c
src/devices/xditview/gray1.bm
src/devices/xditview/gray2.bm
src/devices/xditview/gray3.bm
src/devices/xditview/gray4.bm
src/devices/xditview/gray5.bm
src/devices/xditview/gray6.bm
src/devices/xditview/gray7.bm
src/devices/xditview/gray8.bm
src/devices/xditview/gxditview.man
src/devices/xditview/lex.c
src/devices/xditview/page.c
src/devices/xditview/parse.c
src/devices/xditview/xdit.bm
src/devices/xditview/xdit_mask.bm
src/devices/xditview/xditview.c

src/include/DviChar.h
src/include/XFontName.h

src/libs/libxutil/DviChar.c
src/libs/libxutil/XFontName.c

Macro Packages

. The -mdoc macro set, using the BSD license.

tmac/doc.tmac
tmac/doc-old.tmac
tmac/doc-common
tmac/doc-ditroff
tmac/doc-nroff
tmac/doc-syms
tmac/groff_mdoc.man

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  tmac/e.tmac
  tmac/groff_me.man
  doc/meintro.me
  doc/meintro_fr.me
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Hyphenation Patterns

. The file `tmac/hyphen.us' is identical to the file `hyphen.tex', part of
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  at

    ftp://labrea.stanford.edu/pub/tex/dist/lib/hyphen.tex
    .

  It has been renamed for consistency, i.e., to make patterns available
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. The file `tmac/hyphen.fr' contains the same patterns as the file
  `frhyph.tex' (for TeX), which can be found at

    http://dante.ctan.org/CTAN/language/hyphenation/frhyph.tex   .

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. The file `tmac/hyphen.sv' is identical to the file `svhyph.tex', which
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. The files `tmac/hyphen.det' and `tmac/hyphen.den' contain the same
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. The file `tmac/hyphenex.det' is identical to the file `dehyphtex.tex',
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. The file `tmac/hyphen.cs' contains the same patterns as the file
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1.119 iptables 1.6.2

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 Most GNU software, including some libraries, is covered by the
ordinary GNU General Public License. This license, the GNU Lesser
General Public License, applies to certain designated libraries, and
is quite different from the ordinary General Public License. We use
this license for certain libraries in order to permit linking those
libraries into non-free programs.

 When a program is linked with a library, whether statically or using
a shared library, the combination of the two is legally speaking a
combined work, a derivative
 of the original library. The ordinary
General Public License therefore permits such linking only if the
entire combination fits its criteria of freedom. The Lesser General
Public License permits more lax criteria for linking other code with
the library.

 We call this license the @dfn{Lesser} General Public License because it

does @emph{Less} to protect the user's freedom than the ordinary General
Public License. It also provides other free software developers Less
of an advantage over competing non-free programs. These disadvantages
are the reason we use the ordinary General Public License for many
libraries. However, the Lesser license provides advantages in certain
special circumstances.

For example, on rare occasions, there may be a special need to
encourage the widest possible use of a certain library, so that it becomes
a de-facto standard. To achieve this, non-free programs must be
allowed to use the library. A more frequent case is that a free
library does the
same job as widely used non-free libraries. In this
case, there is little to gain by limiting the free library to free
software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free
programs enables a greater number of people to use a large body of
free software. For example, permission to use the GNU C Library in
non-free programs enables many more people to use the whole GNU
operating system, as well as its variant, the GNU/Linux operating
system.

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users' freedom, it does ensure that the user of a program that is
linked with the Library has the freedom and the wherewithal to run
that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and
modification follow. Pay close attention to the difference between a
``work based on the library'' and a ``work that uses the library''. The
former
contains code derived from the library, whereas the latter must
be combined with the library in order to run.

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licensee is addressed as ``you''.

A ``library'' means a collection of software functions and/or data
prepared so as to be conveniently linked with application programs
(which use some of those functions and data) to form executables.

The ``Library", below, refers to any such software library or work which has been distributed under these terms. A ``work based on the Library" means either the Library or any derivative work under copyright law: that is to say, a work containing the Library or a portion of it,
either verbatim or with modifications and/or translated straightforwardly into another language. (Hereinafter, translation is included without limitation in the term ``modification".)

``Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

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@enumerate a
@item
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@item
You must cause the files modified to carry prominent notices
stating that you changed the files and the date of any change.

@item
You must
cause the whole of the work to be licensed at no
charge to all third parties under the terms of this License.

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If a facility in the modified Library refers to a function or a
table of data to be supplied by an application program that uses
the facility, other than as an argument passed when the facility
is invoked, then you must make a good faith effort to ensure that,
in the event an application does not supply such function or
table, the facility still operates, and performs whatever part of
its purpose remains meaningful.

(For example, a function in a library to compute square roots has
a purpose that is entirely well-defined independent of the
application. Therefore, Subsection 2d requires that any
application-supplied function or table used by this function must
be optional: if the application does not supply it, the square
root function must still compute square roots.)
@end enumerate

These requirements apply to the modified work as a whole. If
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of that work are not derived from the Library,
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this License, whose permissions for other licensees extend to the
entire whole, and thus to each and every part regardless of who wrote
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Thus, it is not the intent of this section to claim rights or contest
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exercise the right to control the distribution of derivative or
collective works based on the Library.

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instead of to this License. (If a newer version than version 2 of the
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these notices.

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that copy, so the ordinary GNU General Public License applies to all
subsequent copies and derivative works made from that copy.

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the Library into a program that is not a library.

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You may copy and distribute the Library (or a portion or
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under the terms of Sections 1 and
2 above provided that you accompany
it with the complete corresponding machine-readable source code, which
must be distributed under the terms of Sections 1 and 2 above on a
medium customarily used for software interchange.

If distribution of object code is made by offering access to copy
from a designated place, then offering equivalent access to copy the
source code from the same place satisfies the requirement to
distribute the source code, even though third parties are not
compelled to copy the source along with the object code.

@item
A program that contains no derivative of any portion of the
Library, but is designed to work with the Library by being compiled or
linked with it, is called a ``work that uses the Library''. Such a
work, in isolation, is not a derivative work of the Library, and
therefore falls outside the scope of this License.

However, linking a ``work that uses the Library'' with the Library
creates an executable that is a derivative of the Library (because
it
contains portions of the Library), rather than a ``work that uses the
library''. The executable is therefore covered by this License.
Section 6 states terms for distribution of such executables.

When a ``work that uses the Library'' uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise,
if the work is a derivative of the Library, you may
distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

@item
As an exception to the Sections above, you may also combine or link a ``work that uses the Library'' with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of
this License. Also, you must do one
of these things:

@enumerate a
@item
Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable ``work that uses the Library'', as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the

Library will not necessarily be able to recompile the application
to use the modified definitions.)

@item
Use a suitable shared library mechanism for linking with the Library. A
suitable mechanism is one that (1) uses at run time a copy of the
library already present on the user's computer system, rather than
copying library functions into the executable,
and (2) will operate
properly with a modified version of the library, if the user installs
one, as long as the modified version is interface-compatible with the
version that the work was made with.

@item
Accompany the work with a written offer, valid for at
least three years, to give the same user the materials
specified in Subsection 6a, above, for a charge no more
than the cost of performing this distribution.

@item
If distribution of the work is made by offering access to copy
from a designated place, offer equivalent access to copy the above
specified materials from the same place.

@item
Verify that the user has already received a copy of these
materials or that you have already sent this user a copy.
@end enumerate

For an executable, the required form of the ``work that uses the
Library" must include any data and utility programs needed for
reproducing the executable from it. However, as a special exception,
the materials to be distributed need not include anything that
is
normally distributed (in either source or binary form) with the major
components (compiler, kernel, and so on) of the operating system on
which the executable runs, unless that component itself accompanies the
executable.

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@item
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the Library and of the other library facilities is otherwise
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@enumerate a
@item
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facilities. This must be distributed under the terms of the
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@item
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@end enumerate

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@end enumerate

@subheading END OF TERMS AND CONDITIONS

@page
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@end
smallexample

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@var{signature of Ty Coon}, 1 April 1990
Ty Coon, President of Vice
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The source code for a work means the preferred form of the work for making modifications to it. For an executable work, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the executable. However, as a special exception, the source code distributed need not include

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Description: Change location of license file in about dialog
Forwarded: not-needed
Author: Frederic Peters <fpeters@debian.org>

--- a/ui/qt/about_dialog.cpp
+++ b/ui/qt/about_dialog.cpp
@@ -335,7 +335,7 @@
#if defined(_WIN32)
   f_license.setFileName(get_datafile_path("COPYING.txt"));
#else
-    f_license.setFileName(get_datafile_path("COPYING"));
+   f_license.setFileName(get_datafile_path("ABOUT.GPL"));
#endif

   f_license.open(QFile::ReadOnly | QFile::Text);
/* <filename>.c
*
* Wireshark - Network traffic analyzer
* By Gerald Combs <gerald@wireshark.org>
* Copyright 1998 Gerald Combs
*
* SPDX-License-Identifier: GPL-2.0-or-later
*/
#!/usr/bin/env python
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#
SPDX-License-Identifier: BSD-3-Clause
#
"""Makes sure that all files contain proper licensing information."""

import optparse
import os.path
import subprocess
import sys

```
def PrintUsage():
 print("""Usage: python checklicenses.py [--root <root>] [tocheck]
 --root   Specifies the repository root. This defaults to ".." relative
          to the script file. This will be correct given the normal location
          of the script in "<root>/tools".

 --ignore-suppressions  Ignores path-specific license whitelist. Useful when
                        trying to remove a suppression/whitelist entry.

 tocheck  Specifies the directory, relative to root, to check. This defaults
          to "." so it checks everything.

Examples:
 python checklicenses.py
 python checklicenses.py --root ~/chromium/src third_party""")


WHITELISTED_LICENSES = [
   'BSD',
   'BSD (2 clause)',
   'BSD (2 clause) GPL
 (v2 or later)',
   'BSD (3 clause)',
   'GPL (v2 or later)',
   'GPL (v3 or later) (with Bison parser exception)',
   'ISC',
   'ISC GPL (v2 or later)',
   'LGPL (v2 or later)',
   'LGPL (v2.1 or later)',
   'MIT/X11 (BSD like)',
   'Public domain',
   'Public domain GPL (v2 or later)',
   'Public domain MIT/X11 (BSD like)',
   'zlib/libpng',
   'zlib/libpng GPL (v2 or later)',
]


PATH_SPECIFIC_WHITELISTED_LICENSES = {
   'caputils/airpcap.h': [
      'BSD-3-Clause',
   ],
   'wsutil/strnatcmp.c': [
      'Zlib',
   ],
   'wsutil/strnatcmp.h': [
```

```
    'Zlib',
],
'dtds': [
    'UNKNOWN',
],
'diameter/dictionary.dtd': [
    'UNKNOWN',
],
'wimaxasncp/dictionary.dtd': [
    'UNKNOWN',
],
'doc/': [
    'UNKNOWN',
],
'docbook/custom_layer_chm.xsl': [
    'UNKNOWN',
],
'docbook/custom_layer_single_html.xsl': [
    'UNKNOWN',
],
'docbook/ws.css' : [
    'UNKNOWN'
],
'fix': [
     'UNKNOWN',
],
'wsutil/g711.c': [
    'UNKNOWN',
],
'packaging/macosx': [
    'UNKNOWN',
],
'epan/except.c': [
    'UNKNOWN',
],
'epan/except.h': [
    'UNKNOWN',
],
'cmake/TestFileOffsetBits.c': [
    'UNKNOWN',
],
# Generated header files by lex/yacc/whatever
'epan/dtd_grammar.h': [
    'UNKNOWN',
],
'epan/dfilter/grammar.h': [
    'UNKNOWN',
],
```

```
  'epan/dfilter/grammar.c': [
     'UNKNOWN',
  ],
  'epan/dissectors/packet-ieee80211-radiotap-iter.': [ # Using ISC license only
      'ISC GPL (v2)'
  ],
  'plugins/mate/mate_grammar.h': [
     'UNKNOWN',
  ],
  'version.h': [
     'UNKNOWN',
  ],
  # Special IDL license that appears to be compatible as far as I (not a
  # lawyer) can tell. See
  # https://www.wireshark.org/lists/wireshark-dev/201310/msg00234.html
  'epan/dissectors/pidl/idl_types.h': [
     'UNKNOWN',
  ],
  # Written by Ronnie Sahlberg
 and correctly licensed, but cannot include
  # a license header despite the file extension as they need to be
  # parsed by the pidl tool
  'epan/dissectors/pidl/mapi/request.cnf.c': [
     'UNKNOWN',
  ],
  'epan/dissectors/pidl/mapi/response.cnf.c': [
     'UNKNOWN',
  ],
  # The following tools are under incompatible licenses (mostly GPLv3 or
  # GPLv3+), but this is OK since they are not actually linked into Wireshark
  'tools/pidl': [
     'UNKNOWN',
  ],
  'tools/lemon': [
     'UNKNOWN',
  ],
  'tools/licensecheck.pl': [
     'GPL (v2)'
  ],
  # Generated files for GTK pixbuf binary bundling
  'ui/gtk/wireshark-gresources.h': [
     'UNKNOWN',
  ],
  'ui/gtk/wireshark-gresources.c': [
     'UNKNOWN',
  ],
}
```

```
def check_licenses(options, args):
 # Figure out which directory we have to check.
 if len(args) == 0:
   # No directory to check specified, use the repository root.
   start_dir = options.base_directory
 elif
 len(args) == 1:
   # Directory specified. Start here. It's supposed to be relative to the
   # base directory.
   start_dir = os.path.abspath(os.path.join(options.base_directory, args[0]))
 else:
   # More than one argument, we don't handle this.
   PrintUsage()
   return 1

 print("Using base directory: %s" % options.base_directory)
 print("Checking: %s" % start_dir)
 print("")

 licensecheck_path = os.path.abspath(os.path.join(options.base_directory,
                                      'tools',
                                      'licensecheck.pl'))

 licensecheck = subprocess.Popen([licensecheck_path,
                           '-l', '150',
                           '-r', start_dir],
                          stdout=subprocess.PIPE,
                          stderr=subprocess.PIPE)
 stdout, stderr = licensecheck.communicate()
 if sys.version_info[0] >= 3:
     stdout = stdout.decode('utf-8')
     stderr
 = stderr.decode('utf-8')
 if options.verbose:
   print('----------- licensecheck stdout -----------')
   print(stdout)
   print('--------- end licensecheck stdout ---------')
 if licensecheck.returncode != 0 or stderr:
   print('----------- licensecheck stderr -----------')
   print(stderr)
   print('--------- end licensecheck stderr ---------')
   print("\nFAILED\n")
   return 1

 success = True
 exit_status = 0
 for line in stdout.splitlines():
   filename, license = line.split(':', 1)
```

```
  filename = os.path.relpath(filename.strip(), options.base_directory)

  # All files in the build output directory are generated one way or another.
  # There's no need to check them.
  if filename.startswith('out/') or filename.startswith('sconsbuild/'):
    continue

  # For now we're just interested in the license.
  license = license.replace('*No copyright*', '').strip()

  # Skip generated files.
  if 'GENERATED FILE' in license:
    continue

  # Support
 files which provide a choice between licenses.
  if any(item in WHITELISTED_LICENSES for item in license.split(';')):
    continue

  if not options.ignore_suppressions:
    found_path_specific = False
    for prefix in PATH_SPECIFIC_WHITELISTED_LICENSES:
      if (filename.startswith(prefix) and
          license in PATH_SPECIFIC_WHITELISTED_LICENSES[prefix]):
        found_path_specific = True
        break
    if found_path_specific:
      continue

  reason = "'%s' has non-whitelisted license '%s'" % (filename, license)
  success = False
  print(reason)
  exit_status = 1

 if success:
  print("\nSUCCESS\n")
  return 0
 else:
  print("\nFAILED\n")
  return exit_status


def main():
 default_root = os.path.abspath(
     os.path.join(os.path.dirname(__file__), '..'))
 option_parser = optparse.OptionParser()
 option_parser.add_option('--root', default=default_root,
                          dest='base_directory',
```

```
                    help='Specifies
 the repository root. This defaults '
                    'to "../.." relative to the script file, which '
                    'will normally be the repository root.')
 option_parser.add_option('-v', '--verbose', action='store_true',
                    default=False, help='Print debug logging')
 option_parser.add_option('--ignore-suppressions',
                    action='store_true',
                    default=False,
                    help='Ignore path-specific license whitelist.')
 options, args = option_parser.parse_args()
 return check_licenses(options, args)


if '__main__' == __name__:
 sys.exit(main())
```

Installing Wireshark on FreeBSD/OpenBSD/NetBSD/DragonFly BSD

==========

1. Extra packages required
2. Compiling Wireshark
3. Berkeley Packet Filter (BPF) requirement
4. Running Wireshark as a non-root user

1. Extra packages required

Wireshark requires a number of additional programs to function.
Install the latest versions of the following programs before compiling:

The easiest way to install these is by using your operating system's
ports or packages system. If you prefer to build from source, the programs
can be found at the following sites:

glib 2.32 or later:
ftp.gnome.org:/pub/gnome/sources/glib/
http://ftp.gnome.org/pub/gnome/sources/glib/

pkgconfig:
http://pkgconfig.freedesktop.org/releases/

python 3.4 or later:
https://www.python.org/downloads/source/

If you want to use the Wireshark GUI, install one or both of these toolkits:

Qt 5.2 or later:
http://download.qt-project.org/official_releases/qt/

(These programs may require additional dependencies)

Additional programs can be used to enhance Wireshark's functionality. These can be found by typing ./configure --help or looking at the output at the end of running the configure script.

2. Compiling Wireshark

To compile Wireshark with the default options, run configure, make and make install (you may have to run "autogen.sh" first):

```
./configure
make
make install
```

The configure and make steps can be run as a non-root user and you can run Wireshark from the compilation directory itself. You must run make install as root in order to copy the program to the proper directories.

3. Berkeley Packet Filter (BPF) requirement

In order to capture packets (with Wireshark/TShark, tcpdump, or any other packet capture program) on a BSD system, your kernel must have the Berkeley
Packet Filter mechanism enabled. The default kernel configurations in recent versions of BSD systems have this enabled already. To verify the bpf device is present, look in the /dev directory:

```
ls -l /dev/bpf*
```

You should see one or more bpf devices listed similar to this:

```
crw-------  1 root  wheel    0,  90 Aug 10 21:05 /dev/bpf0
crw-------  1 root  wheel    0,  91 Aug 10 21:05 /dev/bpf1
```

Packet-capturing programs will pick the first bpf device that's not in use. Recent versions of most BSDs will create bpf devices as needed, so you don't have to configure the number of devices that will be available.

4. Running wireshark as a non-root user

Since the bpf devices are read-only by the owner (root), you normally

have to run packet capturing programs such as Wireshark as root. It is
safer to run programs as a non-root user if possible. To run Wireshark
as a non-root user, you must change the permissions on the bpf device(s).
If
you are the only user that needs to use Wireshark, the easiest way
is to change the owner of each bpf device to your username. You can also
add the read/write ability to the group (typically wheel) and add users
that need to use Wireshark to the wheel group. Check your operating
system's documentation on how to make permanent these changes as they
are often reset upon reboot; if /dev is implemented with devfs, it might
be possible to configure devfs to create all bpf devices owned by a
particular user and/or group and with particular permissions. In
FreeBSD 6.0 and later this can be done by creating an /etc/devfs.rules
file with content such as

[localrules=10]
add path 'bpf*' {mode and permissions}

where "mode and permissions" can include clauses such as

mode {octal permissions}

to set the permissions on the device (e.g., "mode 0660" to set the
permissions to rw-rw-r--),

user {user}

to set the user who owns the device, or

group {group}

to set the group that owns the
device and adding a line such as

devfs_system_ruleset=localrules

to /etc/rc.conf. For example, an /etc/devfs.rules file with

[localrules=10]
add path 'bpf*' mode 0660 group wheel

will grant read and write permissions on all BPF devices to all users in
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1.124 libgpg-error 1.32

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1.125 dosfs-tools 4.1

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1.128 avahi 0.7

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1.129 libcap 2.25

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1.135 libnl3 3.4.0

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HISTORY -

Early versions of this collector were developed as a part of research
projects supported in part by the National Science Foundation
and the Defense Advance Research Projects Agency.

The garbage collector originated as part of the run-time system for
the Russell programming language implementation. The first version of the
garbage collector was written primarily by Al Demers. It was then refined
and mostly rewritten, primarily by Hans-J. Boehm, at Cornell U.,
the University of Washington, Rice University (where it was first used for
C and assembly code), Xerox PARC, SGI, and HP Labs. However, significant
contributions have also been made by many others.

Some other contributors:

More recent contributors are mentioned in the modification history in
README.changes. My apologies for any omissions.

The SPARC specific code was
originally contributed by Mark Weiser.
The Encore Multimax modifications were supplied by
Kevin Kenny (kenny@m.cs.uiuc.edu). The adaptation to the IBM PC/RT is largely
due to Vernon Lee, on machines made available to Rice by IBM.
Much of the HP specific code and a number of good suggestions for improving the
generic code are due to Walter Underwood.
Robert Brazile (brazile@diamond.bbn.com) originally supplied the ULTRIX code.
Al Dosser (dosser@src.dec.com) and Regis Cridlig (Regis.Cridlig@cl.cam.ac.uk)
subsequently provided updates and information on variation between ULTRIX
systems. Parag Patel (parag@netcom.com) supplied the A/UX code.
Jesper Peterson(jep@mtiame.mtia.oz.au), Michel Schinz, and
Martin Tauchmann (martintauchmann@bigfoot.com) supplied the Amiga port.
Thomas Funke (thf@zelator.in-berlin.de(?)) and
Brian D.Carlstrom (bdc@clark.lcs.mit.edu) supplied the NeXT ports.
Douglas Steel (doug@wg.icl.co.uk) provided ICL DRS6000 code.
Bill Janssen (janssen@parc.xerox.com) supplied

the SunOS dynamic loader
specific code. Manuel Serrano (serrano@cornas.inria.fr) supplied linux and
Sony News specific code. Al Dosser provided Alpha/OSF/1 code. He and
Dave Detlefs(detlefs@src.dec.com) also provided several generic bug fixes.
Alistair G. Crooks(agc@uts.amdahl.com) supplied the NetBSD and 386BSD ports.
Jeffrey Hsu (hsu@soda.berkeley.edu) provided the FreeBSD port.
Brent Benson (brent@jade.ssd.csd.harris.com) ported the collector to
a Motorola 88K processor running CX/UX (Harris NightHawk).
Ari Huttunen (Ari.Huttunen@hut.fi) generalized the OS/2 port to
nonIBM development environments (a nontrivial task).
Patrick Beard (beard@cs.ucdavis.edu) provided the initial MacOS port.
David Chase, then at Olivetti Research, suggested several improvements.
Scott Schwartz (schwartz@groucho.cse.psu.edu) supplied some of the
code to save and print call stacks for leak detection on a SPARC.
Jesse Hull and John Ellis supplied the C++ interface code.
Zhong Shao performed much of the
experimentation that led to the
current typed allocation facility. (His dynamic type inference code hasn't
made it into the released version of the collector, yet.)
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1) Use a suitable shared library mechanism for linking with the

Library. A suitable mechanism is one that (a) uses at run time a copy of the Library already present on the user's computer system, and (b) will operate properly with a modified version of the Library that is interface-compatible with the Linked Version.

e) Provide Installation Information, but only if you would otherwise be required to provide such information under section 6 of the GNU GPL, and only to the extent that such information is necessary to install and execute a modified version of the Combined Work produced by recombining or relinking the Application with a modified version of the Linked Version. (If you use option 4d0, the Installation Information must accompany the Minimal Corresponding Source and Corresponding Application Code. If you use option 4d1, you must provide the Installation Information in the manner specified by section 6 of the GNU GPL for conveying Corresponding Source.)

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@appendixsubsec Preamble

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with the library after making changes to the library and recompiling
it. And you must show them these terms so they know their rights.

We protect your rights with a two-step method: (1) we copyright the

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modified by someone else and passed on, the recipients should know
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that might be
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this license for certain libraries in order to permit linking those
libraries into non-free programs.

When a program is linked with a library, whether statically or using
a shared library, the combination of the two is legally speaking a
combined work, a derivative of the original library.
The ordinary
General Public License therefore permits such linking only if the
entire combination fits its criteria of freedom. The Lesser General
Public License permits more lax criteria for linking other code with
the library.

We call this license the @dfn{Lesser} General Public License because it
does @emph{Less} to protect the user's freedom than the ordinary General
Public License. It also provides other free software developers Less
of an advantage over competing non-free programs. These disadvantages
are the reason we use the ordinary General Public License for many
libraries. However, the Lesser license provides advantages in certain
special circumstances.

For example, on rare occasions, there may be a special need to
encourage the widest possible use of a certain library, so that it becomes
a de-facto standard. To achieve this, non-free programs must be
allowed to use the library. A more frequent case is that a free
library does the same job as widely used non-free

libraries. In this
case, there is little to gain by limiting the free library to free
software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free
programs enables a greater number of people to use a large body of
free software. For example, permission to use the GNU C Library in
non-free programs enables many more people to use the whole GNU
operating system, as well as its variant, the GNU/Linux operating
system.

Although the Lesser General Public License is Less protective of the
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linked with the Library has the freedom and the wherewithal to run
that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and
modification follow. Pay close attention to the difference between a
``work based on the library'' and a ``work that uses the library''. The
former contains code derived from the
library, whereas the latter must
be combined with the library in order to run.

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@appendixsubsec TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION
@end iftex
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and what the program that uses the Library does.

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@item
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@item

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If a facility in the modified Library refers to a function or a
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in the event an application does not supply such function or
table, the facility still operates, and performs whatever part of
its purpose remains meaningful.

(For example, a function in a library to compute square roots has
a purpose that is entirely well-defined independent of the
application. Therefore, Subsection 2d requires that any
application-supplied function or table used by this function must
be optional: if the application does not supply it, the square
root function must still
 compute square roots.)
@end enumerate

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must be distributed under the terms of Sections 1 and 2 above on a
medium customarily used for software interchange.

 If distribution of object code is made by offering access to copy
from a designated place, then offering equivalent access to copy the
source code from the same place satisfies the requirement to
distribute the source code, even though third parties are not
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@item
A program that contains no derivative of any portion of the
Library, but is designed to work with the Library by being compiled or
linked with it, is called a ``work that uses the Library''. Such a
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therefore falls outside the scope of this License.

 However,
 linking a ``work that uses the Library'' with the Library
creates an executable that is a derivative of the Library (because it
contains portions of the Library), rather than a ``work that uses the
library''. The executable is therefore covered by this License.
Section 6 states terms for distribution of such executables.

 When a ``work that uses the Library'' uses material from a header file
that is part of the Library, the object code for the work may be a
derivative work of the Library even though the source code is not.
Whether this is true is especially significant if the work can be
linked without the Library, or if the work is itself a library. The
threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work.
(Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

@item
As an exception to the Sections above, you may also combine or link a ``work that uses the Library'' with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

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you must include the
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@enumerate a
@item
Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable ``work that uses the Library'', as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

@item
Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time

a copy of the
library already present on the user's computer system, rather than
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properly with a modified version of the library, if the user installs
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@item
Verify that the user has already received a copy of these
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facilities. This must be distributed under the terms of the
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Give prominent notice with the combined library of the fact
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@end enumerate

@iftex
@heading END OF TERMS AND CONDITIONS
@end iftex
@ifinfo
@center END OF TERMS AND CONDITIONS
@end ifinfo

@page
@appendixsubsec How to Apply These Terms to Your New Libraries

If you develop a new library, and you want it to be of the greatest
possible use to the public, we recommend making it free software that
everyone can redistribute and change. You can do so by permitting
redistribution under these terms (or, alternatively,
under the terms of the
ordinary General Public License).

To apply these terms, attach the following notices to the library. It is
safest to attach them to the start of each source file to most effectively
convey the exclusion of warranty; and each file should have at least the
``copyright'' line and a pointer to where the full notice is found.

@smallexample
@var{one line to give the library's name and an idea of what it does.}
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1.140 ncftp 3.2.2

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1.141 sg3-utils 1.45

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1.143 libidn 2.3.0

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1.144 pkix-ssh 12.1

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[Tatu continues]

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*
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*
* @author Vincent Rijmen <vincent.rijmen@esat.kuleuven.ac.be>
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bigfoot <bigfoot@net-way.net>
Ragnar Hojland Espinosa <ragnar@macula.net>
ConferenceTV card

+ many more (please mail me if you are missing in this list and would
like to be mentioned)
/* nicstar.c v0.22 Jawaid Bazyar (bazyar@hypermall.com)
* nicstar.c, M. Welsh (matt.welsh@cl.cam.ac.uk)
*
* Hacked October, 1997 by Jawaid Bazyar, Interlink Advertising Services Inc.
* http://www.hypermall.com/
* 10/1/97 - commented out CFG_PHYIE bit - we don't care when the PHY
* interrupts us (except possibly for removal/insertion of the cable?)
* 10/4/97 - began heavy inline documentation of the code. Corrected typos
* and spelling mistakes.
* 10/5/97 - added code to handle PHY interrupts, disable PHY on
* loss of link, and correctly re-enable PHY when link is
* re-established. (put back CFG_PHYIE)
*
*   Modified to work with the IDT7721 nicstar -- AAL5 (tested) only.
*
* R. D. Rechenmacher <ron@fnal.gov>, Aug. 6, 1997
*
* Linux driver for the IDT77201 NICStAR PCI ATM controller.

```
* PHY component is expected to be 155 Mbps S/UNI-Lite or IDT 77155;
* see init_nicstar() for PHY initialization to change this. This driver
* expects the Linux ATM stack to support scatter-gather
 lists
* (skb->atm.iovcnt != 0) for Rx skb's passed to vcc->push.
*
* Implementing minimal-copy of received data:
*   IDT always receives data into a small buffer, then large buffers
*     as needed. This means that data must always be copied to create
*     the linear buffer needed by most non-ATM protocol stacks (e.g. IP)
*     Fix is simple: make large buffers large enough to hold entire
*     SDU, and leave <small_buffer_data> bytes empty at the start. Then
*     copy small buffer contents to head of large buffer.
*   Trick is to avoid fragmenting Linux, due to need for a lot of large
*     buffers. This is done by 2 things:
*       1) skb->destructor / skb->atm.recycle_buffer
*            combined, allow nicstar_free_rx_skb to be called to
*            recycle large data buffers
*       2) skb_clone of received buffers
*   See nicstar_free_rx_skb and linearize_buffer for implementation
*     details.
*
*
*
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*
* M. Welsh, 6 July 1996
*
*
*/
```

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 for the initial saa7146 driver and its recent overhaul

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 for his work on the initial Linux DVB driver

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Ralph Metzler <rjkm@metzlerbros.de>
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 for his contributions to the dvb-net driver

Diego Picciani <d.picciani@novacomp.it>
 for CyberLogin for Linux which allows logging onto EON
 (in case you are wondering where CyberLogin is, EON changed its login
 procedure and CyberLogin is no longer used.)

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 for patching the cable card decoder driver

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 for the nxt2004 frontend driver

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 for merging the nxt2002 and nxt2004 modules into a
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1.156 curl 7.44.0

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1.160 openssl 1.0.2w

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1.169 at 3.1.20

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<ig25@rz.uni-karlsruhe.de>, taken over and re-packaged first by Martin
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1.171 at 3.1.16

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This package was debianized by Nathan Scott nathans@debian.org on
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```
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```
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1.172 mtd-utils 1.5.1

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1.173 binutils 2.36.1

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++++++++++++++++

Dean Elsner wrote the original gas for vax. [more details?]

Jay Fenlason maintained gas for a while, adding support for
gdb-specific debug information and the 68k series machines, most of
the preprocessing pass, and extensive changes in messages.c,
input-file.c, write.c.

K. Richard Pixley maintained gas for a while, adding various
enhancements and many bug fixes, including merging support for several
processors, breaking gas up to handle multiple object file format
backends (including heavy rewrite, testing, an integration of the coff
and b.out backends), adding configuration
 including heavy testing and
verification of cross assemblers and file splits and renaming,
converted gas to strictly ansi C including full prototypes, added
support for m680[34]0 & cpu32, considerable work on i960 including a
coff port (including considerable amounts of reverse engineering), a
sparc opcode file rewrite, decstation, rs6000, and hp300hpux host
ports, updated "know" assertions and made them work, much other
reorganization, cleanup, and lint.

Ken Raeburn wrote the high-level BFD interface code to replace most of
the code in format-specific I/O modules.

The original Vax-VMS support was contributed by David L. Kashtan.

Eric Youngdale and Pat Rankin have done much work with it since.

The Intel 80386 machine description was written by Eliot Dresselhaus.

Minh Tran-Le at IntelliCorp contributed some AIX 386 support.

The Motorola 88k machine description was contributed by Devon Bowen of Buffalo University and Torbjorn Granlund of the Swedish Institute of Computer Science.

Keith
Knowles at the Open Software Foundation wrote the original MIPS back end (tc-mips.c, tc-mips.h), and contributed Rose format support that hasn't been merged in yet. Ralph Campbell worked with the MIPS code to support a.out format.

Support for the Zilog Z8k and Hitachi H8/300, H8/500 and SH processors (tc-z8k, tc-h8300, tc-h8500, tc-sh), and IEEE 695 object file format (obj-ieee), was written by Steve Chamberlain of Cygnus Solutions. Steve also modified the COFF back end (obj-coffbfd) to use BFD for some low-level operations, for use with the Hitachi, 29k and Zilog targets.

John Gilmore built the AMD 29000 support, added .include support, and simplified the configuration of which versions accept which pseudo-ops. He updated the 68k machine description so that Motorola's opcodes always produced fixed-size instructions (e.g. jsr), while synthetic instructions remained shrinkable (jbsr). John fixed many bugs, including true tested cross-compilation support, and one bug in relaxation
that took a week and required the proverbial one-bit fix.

Ian Lance Taylor of Cygnus Solutions merged the Motorola and MIT syntaxes for the 68k, completed support for some COFF targets (68k, i386 SVR3, and SCO Unix), wrote the ECOFF support based on Michael Meissner's mips-tfile program, wrote the PowerPC and RS/6000 support, and made a few other minor patches. He handled the binutils releases for versions 2.7 through 2.9.

David Edelsohn contributed fixes for the PowerPC and AIX support.

Steve Chamberlain made gas able to generate listings.

Support for the HP9000/300 was contributed by Glenn Engel of HP.

Support for ELF format files has been worked on by Mark Eichin of Cygnus Solutions (original, incomplete implementation), Pete Hoogenboom at the University of Utah (HPPA mainly), Michael Meissner

of the Open Software Foundation (i386 mainly), and Ken Raeburn of
Cygnus Solutions (sparc, initial 64-bit support).

Several engineers at Cygnus Solutions have also provided many
small
bug fixes and configuration enhancements.

The initial Alpha support was contributed by Carnegie-Mellon
University. Additional work was done by Ken Raeburn of Cygnus
Solutions. Richard Henderson then rewrote much of the Alpha support.

Ian Dall updated the support code for the National Semiconductor 32000
series, and added support for Mach 3 and NetBSD running on the PC532.

Klaus Kaempf ported the assembler and the binutils to openVMS/Alpha.

Steve Haworth contributed the support for the Texas Instruction c30
(tms320c30).

H.J. Lu has contributed many patches and much testing.

Alan Modra reworked much of the i386 backend, improving the error
checking, updating the code, and improving the 16 bit support, using
patches from the work of Martynas Kunigelis and H.J. Lu.

Many others have contributed large or small bugfixes and enhancements. If
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replace the ``with@dots{}Texts.'' line with this:

@smallexample
@group
   with the Invariant Sections being @var{list their titles}, with
   the Front-Cover
 Texts being @var{list}, and with the Back-Cover Texts
   being @var{list}.
@end group
@end smallexample

If you have Invariant Sections without Cover Texts, or some other
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situation.

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@c Local Variables:
@c ispell-local-pdict: "ispell-dict"
@c End:

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Version 2.1, February 1999

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(For example, a function in a library to compute square roots has
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 The reason we have a separate public license for some libraries is that
they blur the distinction we usually make between modifying or adding to a
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analogous to running a utility program or application program. However, in
a textual and legal sense, the linked executable is a combined work, a
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users of those programs of all benefit from the free status of the libraries themselves. This Library General Public License is intended to permit developers of non-free programs to use free libraries, while preserving your freedom as a user of such programs to change the free libraries that are incorporated in them. (We have not seen how to achieve this as regards changes in header files, but we have achieved it as regards changes in the actual functions of the Library.) The hope is that this will lead to faster development of free libraries.

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function must
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This option is useful when you wish to copy part of the code of the
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4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also compile or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by

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a copy of this License. If the work
during execution displays copyright notices, you must include the
copyright notice for the Library among them, as well as a reference
directing the user to the copy of this License. Also, you must do one
of these things:

a) Accompany the work with the complete corresponding
machine-readable source code for the Library including whatever
changes were used in the work (which must be distributed under
Sections 1 and 2 above); and, if the work is an executable linked
with the Library, with the complete machine-readable "work that
uses the Library", as object code and/or source code, so that the
user can modify the Library and then relink to produce a modified
executable containing the modified Library. (It is understood
that the user who changes the contents of definitions files in the
Library will not necessarily be able to recompile the application
to use the modified definitions.)

b) Accompany the
work with a written offer, valid for at
least three years, to give the same user the materials
specified in Subsection 6a, above, for a charge no more
than the cost of performing this distribution.

c) If distribution of the work is made by offering access to copy
from a designated place, offer equivalent access to copy the above
specified materials from the same place.

d) Verify that the user has already received a copy of these
materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the
Library" must include any data and utility programs needed for
reproducing the executable from it. However, as a special exception,
the source code distributed need not include anything that is normally
distributed (in either source or binary form) with the major
components (compiler, kernel, and so on) of the operating system on
which the executable runs, unless that component itself accompanies
the executable.

It may happen that this requirement contradicts the license
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accompany the operating system. Such a contradiction means you cannot
use both them and the Library together in an executable that you
distribute.

7. You may place library facilities that are a work based on the

Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

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END OF TERMS AND CONDITIONS

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<signature of Ty Coon>, 1 April 1990
Ty Coon, President of Vice

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To "convey" a work means any kind of propagation that enables other parties to make or receive copies. Mere interaction with a user through a computer network, with no transfer of a copy, is not conveying.

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A "Standard Interface" means an interface that either is an official standard defined by a recognized standards body, or, in the case of interfaces specified for a particular programming language, one that is widely used among developers working in that language.

The
"System Libraries" of an executable work include anything, other than the work as a whole, that (a) is included in the normal form of packaging a Major Component, but which is not part of that Major Component, and (b) serves only to enable use of the work with that Major Component, or to implement a Standard Interface for which an implementation is available to the public in source code form. A "Major Component", in this context, means a major essential component (kernel, window system, and so on) of the specific operating system (if any) on which the executable work runs, or a compiler used to produce the work, or an object code interpreter used to run it.

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available free
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b) Convey the object code in, or embodied in, a physical product (including a physical distribution medium), accompanied by a written offer, valid for at least three years and valid for as long as you offer spare parts or customer support for that product model, to give anyone who possesses the object code either (1) a copy of the Corresponding Source for all the software in the product that is covered by this License, on a durable physical medium customarily used for software interchange, for a price no more than your reasonable cost of physically performing this conveying of source, or (2) access to copy the Corresponding Source from a network server at no charge.

c) Convey individual copies of the object code with a copy of the written offer to provide the Corresponding Source. This alternative is allowed only occasionally and noncommercially, and only if you received the object code with such an offer, in accord with subsection 6b.

d) Convey the object code by offering access from a designated place (gratis or for a charge), and offer equivalent access to the Corresponding Source in the same way through the same place at no further charge. You need not require recipients to copy the Corresponding Source along with the object code. If the place to copy the object code is a network server, the Corresponding Source may be on a different server (operated by you or a third party) that supports equivalent copying facilities, provided you maintain clear directions next to the object code saying where to find the Corresponding Source. Regardless of what server hosts the Corresponding Source, you remain obligated to ensure that it is available for as long as needed to satisfy these requirements.

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1.175 tar 1.34

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1.179 procps 3.3.15

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1.180 tdb 1.45.6

1.180.1 Available under license :

This package was added to the e2fsprogs debian source package by
Theodore Ts'o <tytso@mit.edu> on Sat Mar 15 15:33:37 EST 2003

It is part of the main e2fsprogs distribution, which can be found at:

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This is the Debian GNU/Linux prepackaged version of the static EXT2
file system consistency checker (e2fsck.static). The EXT2 utilities
were written by Theodore Ts'o <tytso@mit.edu> and Remy Card
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#
This is a Makefile stub which handles the creation of BSD shared
libraries.
#
In order to use this stub, the following makefile variables must be defined.
#
BSDLIB_VERSION = 1.0
BSDLIB_IMAGE = libce
BSDLIB_MYDIR = et
BSDLIB_INSTALL_DIR = $(SHLIBDIR)
#

```
all:: image

real-subdirs:: Makefile
 @echo " MKDIR pic"
 @mkdir -p pic

BSD_LIB = $(BSDLIB_IMAGE).so.$(BSDLIB_VERSION)
BSDLIB_PIC_FLAG = -fpic

image:  $(BSD_LIB)

$(BSD_LIB): $(OBJS)
 (cd pic; ld -Bshareable -o $(BSD_LIB) $(LDFLAGS_SHLIB) $(OBJS))
 $(MV) pic/$(BSD_LIB) .
 $(RM) -f ../$(BSD_LIB)
 (cd ..; $(LN) $(LINK_BUILD_FLAGS) \
  `echo $(my_dir) | sed -e 's;lib/;;'`/$(BSD_LIB) $(BSD_LIB))

install-shlibs install:: $(BSD_LIB)
 @echo " INSTALL_PROGRAM $(BSDLIB_INSTALL_DIR)/$(BSD_LIB)"
 @$(INSTALL_PROGRAM) $(BSD_LIB) \
  $(DESTDIR)$(BSDLIB_INSTALL_DIR)/$(BSD_LIB)
 @-$(LDCONFIG)

install-strip: install

install-shlibs-strip:: install-shlibs

uninstall-shlibs uninstall::
 $(RM) -f $(DESTDIR)$(BSDLIB_INSTALL_DIR)/$(BSD_LIB)

clean::
 $(RM)
 -rf pic
 $(RM) -f $(BSD_LIB)
 $(RM) -f ../$(BSD_LIB)
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This is the Debian GNU/Linux prepackaged version of the translation files of the EXT2 file system utilities. The EXT2 utilities were written by Theodore Ts'o <tytso@mit.edu> and Remy Card <card@masi.ibp.fr>.

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This package was added to the e2fsprogs debian source package by Theodore Ts'o <tytso@mit.edu> on Fri Dec 14 22:24:35 EST 2007

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Index: tdbsa/tdb.c
===
--- tdbsa.orig/tdb.c
+++ tdbsa/tdb.c
@@ -4,11 +4,11 @@ Rev: 23371
Last Changed Date: 2007-06-06 20:14:06 -0400 (Wed, 06 Jun 2007)
*/
 /*
-   Unix SMB/CIFS implementation.
+   trivial database library - standalone version

-   trivial database library - private includes
-
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Theodore Ts'o
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That's all there is to it!
This is the Debian GNU/Linux prepackaged version of the EXT2 file
system utilities (e2fsck, mke2fs, etc.). The EXT2 utilities were
written by Theodore Ts'o <tytso@mit.edu> and Remy Card <card@masi.ibp.fr>.

Sources were obtained from http://sourceforge.net/projects/e2fsprogs

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This package was added to the e2fsprogs debian source package by
Theodore Ts'o <tytso@mit.edu> on Sat Mar 15 15:33:37 EST 2003

It is part of the main e2fsprogs distribution, which can be found at:

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(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

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If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

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1.184 sg3-utils 1.47

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4th October 2021

1.185 libaio 0.3.109

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^L
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b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will
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1.190 lvm2 2.02.180

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When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally
a derivative work. (Executables
containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

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a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able
to recompile the application
to use the modified definitions.)

b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the

library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified

materials from the same place.

e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you
distribute.

7. You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

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1.192 libxml2 2.9.14

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1.193 gnutls 3.7.4

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"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

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Library refers to a function or a
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its purpose remains meaningful.

(For example, a function in a library to compute square roots has
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4. You may copy and distribute the Library (or a portion or
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must be distributed
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medium customarily used for software interchange.

If distribution of object code is made by offering access to copy
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source code from the same place satisfies the requirement to
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5. A program that contains no derivative of any portion of the
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However, linking a "work that uses the Library" with the Library
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Whether this is true is especially significant if the work can be
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If such an object file uses only numerical parameters, data
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Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables
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6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

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b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user
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##
Constant-time SSSE3 AES core implementation.
version 0.1
##

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January 25, 1999

Basic Socket Interface Extensions for IPv6

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Abstract

The de facto standard application program interface (API) for TCP/IP applications is the "sockets" interface. Although this API was developed for Unix in the early 1980s it has also been implemented on a wide variety of non-Unix systems. TCP/IP applications written using the sockets API have in
the past enjoyed a high degree of portability and we
would like the same portability with IPv6 applications. But changes are required to the sockets API to support IPv6 and this memo describes these changes. These include a new socket address structure to carry IPv6 addresses, new address conversion functions, and some new socket options. These extensions are designed to provide access to the basic IPv6 features required by TCP and UDP applications, including multicasting, while introducing a minimum of change into the system and providing complete compatibility for existing IPv4 applications. Additional extensions for advanced IPv6 features (raw sockets and access to the IPv6 extension headers) are defined in another document [4].

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1. Introduction

While IPv4 addresses are 32 bits long, IPv6 interfaces are identified by 128-bit addresses. The socket interface makes the size of an IP address quite visible to an application; virtually all TCP/IP applications for BSD-based systems have knowledge of the size of an IP address. Those parts of the API that expose the addresses must be changed to accommodate the larger IPv6 address size. IPv6 also introduces new features (e.g., traffic class and flowlabel), some of which must be made visible to applications via the API. This memo defines a set of extensions to the socket interface to support the larger address size and new features of IPv6.

2. Design Considerations

There are a number of important considerations in designing changes to this well-worn API:

- The API changes should provide both source and binary compatibility for programs written to the original API. That is, existing program binaries should continue to operate when run on a system supporting the new API. In addition, existing applications that are re-compiled and run on a system supporting the new API should continue to operate. Simply put, the API changes for IPv6 should not break existing programs. An additonal mechanism

for implementations to verify this is to verify the new
symbols are protected by Feature Test Macros as described in IEEE Std 1003.1. (Such Feature Test Macros are not defined by this RFC.)

- The changes to the API should be as small as possible in order to simplify the task of converting existing IPv4 applications to IPv6.

- Where possible, applications should be able to use this API to interoperate with both IPv6 and IPv4 hosts. Applications should not need to know which type of host they are communicating with.

- IPv6 addresses carried in data structures should be 64-bit aligned. This is necessary in order to obtain optimum performance on 64-bit machine architectures.

Because of the importance of providing IPv4 compatibility in the API, these extensions are explicitly designed to operate on machines that provide complete support for both IPv4 and IPv6. A subset of this API could probably be designed for operation on systems
that support only
IPv6. However, this is not addressed in this memo.

2.1 What Needs to be Changed

The socket interface API consists of a few distinct components:

- Core socket functions.

- Address data structures.

- Name-to-address translation functions.

- Address conversion functions.

The core socket functions -- those functions that deal with such things as setting up and tearing down TCP connections, and sending and

receiving UDP packets -- were designed to be transport independent. Where protocol addresses are passed as function arguments, they are carried via opaque pointers. A protocol-specific address data structure is defined for each protocol that the socket functions support. Applications must cast pointers to these protocol-specific address structures into pointers to the generic "sockaddr" address structure when using the socket functions. These functions need not change for IPv6, but a new IPv6-specific address data structure is needed.

The "sockaddr_in" structure is the protocol-specific data structure for IPv4. This data structure actually includes 8-octets of unused space, and it is tempting to try to use this space to adapt the sockaddr_in structure to IPv6. Unfortunately, the sockaddr_in structure is not large enough to hold the 16-octet IPv6 address as well as the other information (address family and port number) that is needed. So a new address data structure must be defined for IPv6.

IPv6 addresses are scoped [2] so they could be link-local, site, organization, global, or other scopes at this time undefined. To support applications that want to be able to identify a set of interfaces for a specific scope, the IPv6 sockaddr_in structure must support a field that can be used by an implementation to identify a set of interfaces identifying the scope for an IPv6 address.

The name-to-address translation functions in the socket interface are gethostbyname() and gethostbyaddr(). These are left as is and new functions are defined to support IPv4 and IPv6. Additionally, the POSIX 1003.g draft [3] specifies a new nodename-to-address translation function which is protocol independent. This function can also be used with IPv4 and IPv6.

The address conversion functions -- inet_ntoa() and inet_addr() -- convert IPv4 addresses between binary and printable form. These functions are quite specific to 32-bit IPv4 addresses. We have designed two analogous functions that convert both IPv4 and IPv6 addresses, and carry an address type parameter so that they can be extended to other protocol families as well.

Finally, a few miscellaneous features are needed to support IPv6. New interfaces are needed to support the IPv6 traffic class, flow label, and hop limit header fields. New socket options are needed to control the sending and receiving of IPv6 multicast packets.

The socket interface will be enhanced in the future to provide access to other IPv6 features. These extensions are described in [4].

2.2 Data Types

The data types of the structure elements given in this memo are intended to be examples, not absolute requirements. Whenever possible, data types from Draft 6.6 (March 1997) of POSIX 1003.1g are used: uintN_t means an unsigned integer of exactly N bits (e.g., uint16_t). We also assume the argument data types from 1003.1g when possible (e.g., the final argument to setsockopt() is a size_t value). Whenever buffer sizes are specified, the POSIX 1003.1 size_t data type is used (e.g., the two length arguments to getnameinfo()).

2.3 Headers

When function prototypes and structures are shown we show the headers that must be #included to cause that item to be defined.

2.4
Structures

When structures are described the members shown are the ones that must appear in an implementation. Additional, nonstandard members may also be defined by an implementation. As an additional precaution nonstandard members could be verified by Feature Test Macros as described in IEEE Std 1003.1. (Such Feature Test Macros are not defined by this RFC.)

The ordering shown for the members of a structure is the recommended ordering, given alignment considerations of multibyte members, but an implementation may order the members differently.

3. Socket Interface

This section specifies the socket interface changes for IPv6.

3.1 IPv6 Address Family and Protocol Family

A new address family name, AF_INET6, is defined in <sys/socket.h>. The AF_INET6 definition distinguishes between the original sockaddr_in address data structure, and the new sockaddr_in6 data structure.

A new protocol family name, PF_INET6, is defined in <sys/socket.h>. Like most of the other protocol family names, this will usually be defined to have the same value as the corresponding address family name:

```
#define PF_INET6        AF_INET6
```

The PF_INET6 is used in the first argument to the socket() function to indicate that an IPv6 socket is being created.

3.2 IPv6 Address Structure

A new in6_addr structure holds a single IPv6 address and is defined as a result of including <netinet/in.h>:

```
struct in6_addr {
    uint8_t  s6_addr[16];      /* IPv6 address */
};
```

This data structure contains an array of sixteen 8-bit elements, which make up one 128-bit IPv6 address. The IPv6 address is stored in network byte order.

The structure in6_addr above is usually implemented with an embedded union with extra fields that force the desired alignment level in a

manner similar to BSD implementations of "struct in_addr". Those additional
implementation details are omitted here for simplicity.

An example is as follows:

```
struct in6_addr {
   union {
      uint8_t  _S6_u8[16];
      uint32_t _S6_u32[4];
      uint64_t _S6_u64[2];
   } _S6_un;
};
#define s6_addr _S6_un._S6_u8
```

3.3 Socket Address Structure for 4.3BSD-Based Systems

In the socket interface, a different protocol-specific data structure is defined to carry the addresses for each protocol suite. Each protocol-specific data structure is designed so it can be cast into a protocol-independent data structure -- the "sockaddr" structure. Each has a "family" field that overlays the "sa_family" of the sockaddr data structure. This field identifies the type of the data structure.

The sockaddr_in structure is the protocol-specific address data structure for IPv4. It is used to pass addresses between applications and the system in the socket functions. The following sockaddr_in6 structure holds IPv6 addresses and is defined as a result of including
the <netinet/in.h> header:

```
 struct sockaddr_in6 {
    sa_family_t     sin6_family;    /* AF_INET6 */
    in_port_t       sin6_port;      /* transport layer port # */
    uint32_t        sin6_flowinfo;  /* IPv6 traffic class & flow info */
    struct in6_addr sin6_addr;      /* IPv6 address */
    uint32_t        sin6_scope_id;  /* set of interfaces for a scope */
 };
```

This structure is designed to be compatible with the sockaddr data structure used in the 4.3BSD release.

The sin6_family field identifies this as a sockaddr_in6 structure. This

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field overlays the sa_family field when the buffer is cast to a sockaddr data structure. The value of this field must be AF_INET6.

The sin6_port field contains the 16-bit UDP or TCP port number. This field is used in the same way as the sin_port field of the sockaddr_in structure.
The port number is stored in network byte order.

The sin6_flowinfo field is a 32-bit field that contains two pieces of information: the traffic class and the flow label. The contents and interpretation of this member is specified in [1]. The sin6_flowinfo field SHOULD be set to zero by an implementation prior to using the sockaddr_in6 structure by an application on receive operations.

The sin6_addr field is a single in6_addr structure (defined in the previous section). This field holds one 128-bit IPv6 address. The address is stored in network byte order.

The ordering of elements in this structure is specifically designed so that when sin6_addr field is aligned on a 64-bit boundary, the start of the structure will also be aligned on a 64-bit boundary. This is done for optimum performance on 64-bit architectures.

The sin6_scope_id field is a 32-bit integer that identifies a set of interfaces as appropriate for the scope of the address carried in the sin6_addr
field. For a link scope sin6_addr sin6_scope_id would be an interface index. For a site scope sin6_addr, sin6_scope_id would be a site identifier. The mapping of sin6_scope_id to an interface or set of interfaces is left to implementation and future specifications on the subject of site identifiers.

Notice that the sockaddr_in6 structure will normally be larger than the generic sockaddr structure. On many existing implementations the sizeof(struct sockaddr_in) equals sizeof(struct sockaddr), with both being 16 bytes. Any existing code that makes this assumption needs to be examined carefully when converting to IPv6.

3.4 Socket Address Structure for 4.4BSD-Based Systems

The 4.4BSD release includes a small, but incompatible change to the

socket interface. The "sa_family" field of the sockaddr data structure was changed from a 16-bit value to an 8-bit value, and the space saved used to hold a length field, named "sa_len". The sockaddr_in6 data structure given in the previous
section cannot be correctly cast into
the newer sockaddr data structure. For this reason, the following alternative IPv6 address data structure is provided to be used on systems based on 4.4BSD. It is defined as a result of including the <netinet/in.h> header.

```
struct sockaddr_in6 {
    uint8_t        sin6_len;      /* length of this struct */
    sa_family_t    sin6_family;   /* AF_INET6 */
    in_port_t      sin6_port;     /* transport layer port # */
    uint32_t       sin6_flowinfo; /* IPv6 flow information */
    struct in6_addr sin6_addr;    /* IPv6 address */
    uint32_t       sin6_scope_id; /* set of interfaces for a scope */
};
```


The only differences between this data structure and the 4.3BSD variant are the inclusion of the length field, and the change of the family field to a 8-bit data type.
The definitions of all the other fields are
identical to the structure defined in the previous section.

Systems that provide this version of the sockaddr_in6 data structure must also declare SIN6_LEN as a result of including the <netinet/in.h> header. This macro allows applications to determine whether they are being built on a system that supports the 4.3BSD or 4.4BSD variants of the data structure.

3.5 The Socket Functions

Applications call the socket() function to create a socket descriptor that represents a communication endpoint. The arguments to the socket() function tell the system which protocol to use, and what format address structure will be used in subsequent functions. For example, to create an IPv4/TCP socket, applications make the call:

```
  s = socket(PF_INET, SOCK_STREAM, 0);
```

To create an IPv4/UDP socket, applications make the call:

```
  s = socket(PF_INET, SOCK_DGRAM, 0);
```

Applications may create IPv6/TCP and IPv6/UDP sockets by simply using the constant PF_INET6 instead of PF_INET in the first argument. For example, to create an IPv6/TCP socket, applications make the call:

```
  s = socket(PF_INET6, SOCK_STREAM, 0);
```

To create an IPv6/UDP socket, applications make the call:

```
  s = socket(PF_INET6, SOCK_DGRAM, 0);
```

Once the application has created a PF_INET6 socket, it must use the sockaddr_in6 address structure when passing addresses in to the system. The functions that the application uses to pass addresses into the system are:

- bind()
- connect()
- sendmsg()
- sendto()

The system will use the sockaddr_in6 address structure to return addresses to applications that are using PF_INET6 sockets. The functions that return an address from the system to an application are:

- accept()
- recvfrom()
- recvmsg()
- getpeername()
- getsockname()

No changes to the syntax of the socket functions are needed to support

IPv6, since all of the "address carrying" functions use an opaque

address pointer, and carry an address length as a function argument.

3.6 Compatibility with IPv4 Applications

In order to support the large base of applications using the original API, system implementations must provide complete source and binary compatibility with the original API. This means that systems must continue to support PF_INET sockets and the sockaddr_in address structure. Applications must be able to create IPv4/TCP and IPv4/UDP sockets using the PF_INET constant in the socket() function, as described in the previous section. Applications should be able to hold a combination of IPv4/TCP, IPv4/UDP, IPv6/TCP and IPv6/UDP sockets simultaneously within the same process.

Applications using the original API should continue to operate as they did on systems supporting only IPv4. That is, they should continue to interoperate with IPv4 nodes.

3.7 Compatibility with IPv4 Nodes

The
API also provides a different type of compatibility: the ability for IPv6 applications to interoperate with IPv4 applications. This feature uses the IPv4-mapped IPv6 address format defined in the IPv6 addressing architecture specification [2]. This address format allows the IPv4 address of an IPv4 node to be represented as an IPv6 address. The IPv4 address is encoded into the low-order 32 bits of the IPv6 address, and the high-order 96 bits hold the fixed prefix 0:0:0:0:0:FFFF. IPv4-mapped addresses are written as follows:

::FFFF:<IPv4-address>

These addresses can be generated automatically by the getipnodebyname() function when the specified host has only IPv4 addresses (as described in Section 6.1).

Applications may use PF_INET6 sockets to open TCP connections to IPv4 nodes, or send UDP packets to IPv4 nodes, by simply encoding the destination's IPv4 address as an IPv4-mapped IPv6 address, and passing that address, within a sockaddr_in6 structure, in the connect()
or
sendto() call. When applications use PF_INET6 sockets to accept TCP connections from IPv4 nodes, or receive UDP packets from IPv4 nodes, the system returns the peer's address to the application in the accept(),

recvfrom(), or getpeername() call using a sockaddr_in6 structure encoded this way.

Few applications will likely need to know which type of node they are interoperating with. However, for those applications that do need to know, the IN6_IS_ADDR_V4MAPPED() macro, defined in Section 6.7, is provided.

3.8 IPv6 Wildcard Address

While the bind() function allows applications to select the source IP address of UDP packets and TCP connections, applications often want the system to select the source address for them. With IPv4, one specifies the address as the symbolic constant INADDR_ANY (called the "wildcard" address) in the
bind() call, or simply omits the bind() entirely.

Since the IPv6 address type is a structure (struct in6_addr), a symbolic constant can be used to initialize an IPv6 address variable, but cannot be used in an assignment. Therefore systems provide the IPv6 wildcard address in two forms.

The first version is a global variable named "in6addr_any" that is an in6_addr structure. The extern declaration for this variable is defined in <netinet/in.h>:

```
extern const struct in6_addr in6addr_any;
```

Applications use in6addr_any similarly to the way they use INADDR_ANY in IPv4. For example, to bind a socket to port number 23, but let the system select the source address, an application could use the following code:

```
struct sockaddr_in6 sin6;
. . .
sin6.sin6_family = AF_INET6;
sin6.sin6_flowinfo = 0;
```

```
 sin6.sin6_port = htons(23);
 sin6.sin6_addr = in6addr_any;  /* structure assignment */
  . . .
 if (bind(s, (struct sockaddr *) &sin6, sizeof(sin6)) == -1)
        . .
.
```

The other version is a symbolic constant named IN6ADDR_ANY_INIT and is defined in <netinet/in.h>. This constant can be used to initialize an in6_addr structure:

```
 struct in6_addr anyaddr = IN6ADDR_ANY_INIT;
```

Note that this constant can be used ONLY at declaration time. It can not be used to assign a previously declared in6_addr structure. For example, the following code will not work:

```
 /* This is the WRONG way to assign an unspecified address */
 struct sockaddr_in6 sin6;
  . . .
 sin6.sin6_addr = IN6ADDR_ANY_INIT; /* will NOT compile */
```

Be aware that the IPv4 INADDR_xxx constants are all defined in host byte order but the IPv6 IN6ADDR_xxx constants and the IPv6 in6addr_xxx externals are defined in network byte order.

3.9 IPv6 Loopback Address

Applications may need to send UDP packets to, or originate TCP connections
to, services residing on the local node. In IPv4, they can do this by using the constant IPv4 address INADDR_LOOPBACK in their connect(), sendto(), or sendmsg() call.

IPv6 also provides a loopback address to contact local TCP and UDP

services. Like the unspecified address, the IPv6 loopback address is
provided in two forms -- a global variable and a symbolic constant.

The global variable is an in6_addr structure named "in6addr_loopback."
The extern declaration for this variable is defined in <netinet/in.h>:

```
 extern const struct in6_addr in6addr_loopback;
```

Applications use in6addr_loopback as they would use INADDR_LOOPBACK in
IPv4 applications (but beware of the byte ordering difference mentioned
at the end of the previous section). For example, to open a TCP
connection to the local telnet server, an application could use the
following code:

```
 struct sockaddr_in6 sin6;
  . . .
 sin6.sin6_family = AF_INET6;
 sin6.sin6_flowinfo = 0;
 sin6.sin6_port = htons(23);

sin6.sin6_addr = in6addr_loopback;  /* structure assignment */
  . . .
 if (connect(s, (struct sockaddr *) &sin6, sizeof(sin6)) == -1)
        . . .
```

The symbolic constant is named IN6ADDR_LOOPBACK_INIT and is defined in
<netinet/in.h>. It can be used at declaration time ONLY; for example:

```
 struct in6_addr loopbackaddr = IN6ADDR_LOOPBACK_INIT;
```

Like IN6ADDR_ANY_INIT, this constant cannot be used in an assignment to
a previously declared IPv6 address variable.

3.10 Portability Additions

One simple addition to the sockets API that can help application writers
is the "struct sockaddr_storage". This data structure can simplify
writing code portable across multiple address families and platforms.
This data structure is designed with the following goals.

- It has a large enough implementation specific maximum size to store
  the desired set of protocol specific socket address data structures.
  Specifically, it is at least large enough to accommodate sockaddr_in

and sockaddr_in6 and possibly other protocol specific socket
  addresses too.

- It is aligned at an appropriate boundary so protocol specific socket
  address data structure pointers can be cast to it and access their
  fields without alignment problems. (e.g. pointers to sockaddr_in6
  and/or sockaddr_in can be cast to it and access fields without alignment

  problems).
- It has the initial field(s) isomorphic to the fields of the
  "struct sockaddr" data structure on that implementation which
  can be used as a discriminants for deriving the protocol in use.
  These initial field(s) would on most implementations either be a
  single field of type "sa_family_t" (isomorphic to sa_family field,
  16 bits) or two fields of type uint8_t and sa_family_t respectively,
  (isomorphic to sa_len and sa_family_t,
8 bits each).

An example implementation design of such a data structure would be as
follows.

```
/*
* Desired design of maximum size and alignment
*/
#define _SS_MAXSIZE    128  /* Implementation specific max size */
#define _SS_ALIGNSIZE  (sizeof (int64_t))
                    /* Implementation specific desired alignment */
/*
* Definitions used for sockaddr_storage structure paddings design.
*/
#define _SS_PAD1SIZE   (_SS_ALIGNSIZE - sizeof (sa_family_t))
#define _SS_PAD2SIZE   (_SS_MAXSIZE - (sizeof (sa_family_t)+
                        _SS_PAD1SIZE + _SS_ALIGNSIZE))
struct sockaddr_storage {
  sa_family_t  __ss_family;     /* address family */
  /* Following fields are implementation specific */
  char      __ss_pad1[_SS_PAD1SIZE];
          /* 6 byte pad, this is to make implementation
          /* specific pad up to alignment field that */
          /* follows explicit in the data structure */
  int64_t   __ss_align;     /* field to force
 desired structure */
           /* storage alignment */
  char      __ss_pad2[_SS_PAD2SIZE];
```

```
        /* 112 byte pad to achieve desired size, */
        /* _SS_MAXSIZE value minus size of ss_family */
        /* __ss_pad1, __ss_align fields is 112 */
};
```

On implementations where sockaddr data structure includes a "sa_len", field this data structure would look like this:

```
/*
* Definitions used for sockaddr_storage structure paddings design.
*/
#define _SS_PAD1SIZE (_SS_ALIGNSIZE -
                    (sizeof (uint8_t) + sizeof (sa_family_t))
#define _SS_PAD2SIZE (_SS_MAXSIZE - (sizeof (sa_family_t)+
                      _SS_PAD1SIZE + _SS_ALIGNSIZE))
struct sockaddr_storage {
  uint8_t      __ss_len;       /* address length */
  sa_family_t  __ss_family;    /* address family */
  /* Following fields are implementation specific */
  char         __ss_pad1[_SS_PAD1SIZE];
            /* 6 byte pad, this is to make implementation
             /* specific pad up to alignment field that */
            /* follows explicit in the data structure */
  int64_t      __ss_align;  /* field to force desired structure */
```



```
            /* storage alignment */
  char         __ss_pad2[_SS_PAD2SIZE];
            /* 112 byte pad to achieve desired size, */
            /* _SS_MAXSIZE value minus size of ss_len, */
            /* __ss_family, __ss_pad1, __ss_align fields is 112 */
};
```

The above example implementation illustrates a data structure which will align on a 64 bit boundary. An implementation specific field "__ss_align" along "__ss_pad1" is used to force a 64-bit alignment which covers proper alignment good enough for needs of sockaddr_in6 (IPv6), sockaddr_in (IPv4) address data structures. The size of padding fields __ss_pad1 depends
on the chosen alignment boundary. The size of padding field __ss_pad2 depends on the value of overall size chosen for the total size of the structure. This size and alignment are represented in

the above example by implementation specific (not required) constants _SS_MAXSIZE (chosen value 128) and _SS_ALIGNMENT (with chosen value 8). Constants _SS_PAD1SIZE (derived value 6) and _SS_PAD2SIZE (derived value 112) are also for illustration and not required. The implementation specific definitions and structure field names above start with an underscore to denote implementation private namespace. Portable code is not expected to access or reference those fields or constants.

The sockaddr_storage structure solves the problem of declaring storage for automatic variables which is large enough and aligned enough for storing socket address data structure of any family. For example, code with a file descriptor and without the context of the address family can pass a pointer to a variable of
this type where a pointer to a socket
address structure is expected in calls such as getpeername() and determine the address family by accessing the received content after the call.

The sockaddr_storage structure may also be useful and applied to certain other interfaces where a generic socket address large enough and aligned for use with multiple address families may be needed. A discussion of those interfaces is outside the scope of this document.

Also, much existing code assumes that any socket address structure can fit in a generic sockaddr structure. While this has been true for IPv4 socket address structures, it has always been false for Unix domain socket address structures (but in practice this has not been a problem) and it is also false for IPv6 socket address structures (which can be a problem).

So now an application can do the following:

```
struct sockaddr_storage __ss;
struct sockaddr_in6 *sin6;
sin6 = (struct sockaddr_in6 *) &__ss;
```

4. Interface Identification

This
API uses an interface index (a small positive integer) to identify the local interface on which a multicast group is joined (Section 5.3). Additionally, the advanced API [4] uses these same interface indexes to identify the interface on which a datagram is received, or to specify

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the interface on which a datagram is to be sent.

Interfaces are normally known by names such as "le0", "sl1", "ppp2", and the like. On Berkeley-derived implementations, when an interface is made known to the system, the kernel assigns a unique positive integer value (called the interface index) to that interface. These are small positive integers that start at 1. (Note that 0 is never used for an interface index.) There may be gaps so that there is no current interface for a particular positive interface index.

This API defines two functions that
map between an interface name and
index, a third function that returns all the interface names and indexes, and a fourth function to return the dynamic memory allocated by the previous function. How these functions are implemented is left up to the implementation. 4.4BSD implementations can implement these functions using the existing sysctl() function with the NET_RT_IFLIST command. Other implementations may wish to use ioctl() for this purpose.

4.1 Name-to-Index

The first function maps an interface name into its corresponding index.

```
#include <net/if.h>

unsigned int  if_nametoindex(const char *ifname);
```

If the specified interface name does not exist, the return value is 0, and errno is set to ENXIO. If there was a system error (such as running out of memory), the return value is 0 and errno is set to the proper value (e.g., ENOMEM).

4.2 Index-to-Name

The second function maps an interface index into its corresponding name.

```
#include <net/if.h>
```

```
 char  *if_indextoname(unsigned
int ifindex, char *ifname);
```

The ifname argument must point to a buffer of at least IF_NAMESIZE bytes into which the interface name corresponding to the specified index is returned. (IF_NAMESIZE is also defined in <net/if.h> and its value includes a terminating null byte at the end of the interface name.) This pointer is also the return value of the function. If there is no interface corresponding to the specified index, NULL is returned, and errno is set to ENXIO, if there was a system error (such as running out of memory), if_indextoname returns NULL and errno would be set to the proper value (e.g., ENOMEM).

4.3 Return All Interface Names and Indexes

The if_nameindex structure holds the information about a single interface and is defined as a result of including the <net/if.h> header.

```
struct if_nameindex {
   unsigned int   if_index;  /* 1, 2, ... */
  char         *if_name;   /* null terminated name: "le0", ... */
};
```

The final function returns an array of if_nameindex structures, one structure per interface.

```
 struct if_nameindex  *if_nameindex(void);
```

The end of the array of structures is indicated by a structure with an if_index of 0 and an if_name of NULL. The function returns a NULL pointer upon an error, and would set errno to the appropriate value.

The memory used for this array of structures along with the interface names pointed to by the if_name members is obtained dynamically. This memory is freed by the next function.

4.4 Free Memory

The following function frees the dynamic memory that was allocated by if_nameindex().

```
#include <net/if.h>

void  if_freenameindex(struct if_nameindex *ptr);
```

The argument to this function must be a pointer that was returned by if_nameindex().

Currently net/if.h doesn't have prototype definitions for functions and it is
recommended that these definitions be defined in net/if.h as well and the struct if_nameindex{}.

5. Socket Options

A number of new socket options are defined for IPv6. All of these new options are at the IPPROTO_IPV6 level. That is, the "level" parameter in the getsockopt() and setsockopt() calls is IPPROTO_IPV6 when using these options. The constant name prefix IPV6_ is used in all of the new socket options. This serves to clearly identify these options as applying to IPv6.

The declaration for IPPROTO_IPV6, the new IPv6 socket options, and related constants defined in this section are obtained by including the header <netinet/in.h>.

5.1 Unicast Hop Limit

A new setsockopt() option controls the hop limit used in outgoing unicast IPv6 packets. The name of this option is IPV6_UNICAST_HOPS, and

it is used at the IPPROTO_IPV6
layer. The following example illustrates
how it is used:

```
int  hoplimit = 10;

if (setsockopt(s, IPPROTO_IPV6, IPV6_UNICAST_HOPS,
            (char *) &hoplimit, sizeof(hoplimit)) == -1)
    perror("setsockopt IPV6_UNICAST_HOPS");
```

When the IPV6_UNICAST_HOPS option is set with setsockopt(), the option value given is used as the hop limit for all subsequent unicast packets sent via that socket. If the option is not set, the system selects a default value. The integer hop limit value (called x) is interpreted as follows:

```
x < -1:        return an error of EINVAL
x == -1:       use kernel default
0 <= x <= 255: use x
x >= 256:      return an error of EINVAL
```

The IPV6_UNICAST_HOPS option may be used with getsockopt() to determine the hop limit value that the system will use for subsequent unicast packets sent via that socket. For example:

```
int  hoplimit;
size_t  len = sizeof(hoplimit);

if (getsockopt(s, IPPROTO_IPV6, IPV6_UNICAST_HOPS,

    (char *) &hoplimit, &len) == -1)
    perror("getsockopt IPV6_UNICAST_HOPS");
else
    printf("Using %d for hop limit.\n", hoplimit);
```

5.2 Sending and Receiving Multicast Packets

IPv6 applications may send UDP multicast packets by simply specifying an IPv6 multicast address in the address argument of the sendto() function.

Three socket options at the IPPROTO_IPV6 layer control some of the parameters for sending multicast packets. Setting these options is not required: applications may send multicast packets without using these options. The setsockopt() options for controlling the sending of multicast packets are summarized below. These three options can also be used with getsockopt().

IPV6_MULTICAST_IF

Set the interface to use for outgoing multicast packets.
The argument is the index of the interface to use.

Argument type: unsigned int

IPV6_MULTICAST_HOPS

Set the hop limit to use for outgoing multicast packets.
(Note a separate option - IPV6_UNICAST_HOPS - is
provided to set the hop limit to use for outgoing
unicast packets.)

The interpretation of the argument is the same
as for the IPV6_UNICAST_HOPS option:

x < -1: return an error of EINVAL
x == -1: use kernel default
0 <= x <= 255: use x
x >= 256: return an error of EINVAL

If IPV6_MULTICAST_HOPS is not set, the default is 1
(same as IPv4 today)

Argument type: int

IPV6_MULTICAST_LOOP

If a multicast datagram is sent to a group to which the sending host
itself belongs (on the outgoing interface), a copy of the datagram is
looped back by the IP layer for local delivery if this option is set to
1. If this option is set to 0 a copy is not looped back. Other option
values
return an error of EINVAL.

If IPV6_MULTICAST_LOOP is not set, the default is 1 (loopback; same as
IPv4 today).

Argument type: unsigned int

The reception of multicast packets is controlled by the two setsockopt() options summarized below. An error of EOPNOTSUPP is returned if these two options are used with getsockopt().

IPV6_JOIN_GROUP

Join a multicast group on a specified local interface.
If the interface index is specified as 0,
the kernel chooses the local interface.
For example, some kernels look up the multicast group
in the normal IPv6 routing table and using the resulting interface.

Argument type: struct ipv6_mreq

IPV6_LEAVE_GROUP

Leave a multicast group on a specified interface.

Argument type: struct ipv6_mreq

The argument type of both of these options is the ipv6_mreq structure, defined as a result of including the <netinet/in.h> header;

```
struct ipv6_mreq {
    struct in6_addr ipv6mr_multiaddr;
/* IPv6 multicast addr */
```



```
    unsigned int    ipv6mr_interface; /* interface index */
};
```

Note that to receive multicast datagrams a process must join the multicast group and bind the UDP port to which datagrams will be sent. Some processes also bind the multicast group address to the socket, in addition to the port, to prevent other datagrams destined to that same port from being delivered to the socket.

6. Library Functions

New library functions are needed to perform a variety of operations with IPv6 addresses. Functions are needed to lookup IPv6 addresses in the Domain Name System (DNS). Both forward lookup (nodename-to-address translation) and reverse lookup (address-to-nodename translation) need to be supported. Functions are also needed to convert IPv6 addresses between their binary and textual form.

We note that
the two existing functions, gethostbyname() and gethostbyaddr(), are left as-is. New functions are defined to handle both IPv4 and IPv6 addresses.

6.1 Nodename-to-Address Translation

The commonly used function gethostbyname() is inadequate for many applications, first because it provides no way for the caller to specify anything about the types of addresses desired (IPv4 only, IPv6 only, IPv4-mapped IPv6 are OK, etc.), and second because many implementations of this function are not thread safe. RFC 2133 defined a function named gethostbyname2() but this function was also inadequate, first because its use required setting a global option (RES_USE_INET6) when IPv6 addresses were required, and second because a flag argument is needed to provide the caller with additional control over the types of addresses required.

The following function is new and must be thread safe:

```
#include <sys/socket.h>
#include <netdb.h>

struct hostent *getipnodebyname(const char *name, int
af, int flags
                        int *error_num);
```

The name argument can be either a node name or a numeric address string (i.e., a dotted-decimal IPv4 address or an IPv6 hex address). The af argument specifies the address family, either AF_INET or AF_INET6. The error_num value is returned to the caller, via a pointer, with the appropriate error code in error_num, to support thread safe error code returns. error_num will be set to one of the following values:

HOST_NOT_FOUND

No such host is known.

NO_ADDRESS

The server recognised the request and the name but no address is available. Another type of request to the name server for the domain might return an answer.

NO_RECOVERY

An unexpected server failure occurred which cannot be recovered.

TRY_AGAIN

A temporary and possibly transient error occurred, such as a failure of a server to respond.

The flags argument specifies the types of addresses that are searched for, and the types of addresses that are returned. We note that a special flags value of AI_DEFAULT (defined below) should handle most applications.

That is, porting simple applications to use IPv6 replaces the call

```
hptr = gethostbyname(name);
```

with

```
hptr = getipnodebyname(name, AF_INET6, AI_DEFAULT, &error_num);
```

and changes any subsequent error diagnosis code to use error_num instead of externally declared variables, such as h_errno.

Applications desiring finer control over the types of addresses searched for and returned, can specify other combinations of the flags argument.

A flags of 0 implies a strict interpretation of the af argument:

- If flags is 0 and af is AF_INET, then the caller wants only IPv4

addresses. A query is made for A records. If successful, the IPv4 addresses are returned and the h_length
member of the hostent
structure will be 4, else the function returns a NULL pointer.

- If flags is 0 and if af is AF_INET6, then the caller wants only IPv6 addresses. A query is made for AAAA records. If successful, the IPv6 addresses are returned and the h_length member of the hostent structure will be 16, else the function returns a NULL pointer.

Other constants can be logically-ORed into the flags argument, to modify the behavior of the function.

- If the AI_V4MAPPED flag is specified along with an af of AF_INET6, then the caller will accept IPv4-mapped IPv6 addresses. That is, if no AAAA records are found then a query is made for A records and any found are returned as IPv4-mapped IPv6 addresses (h_length will be 16). The AI_V4MAPPED flag is ignored unless af equals AF_INET6.

- The AI_ALL flag is used in conjunction with the AI_V4MAPPED flag, and is only used with the IPv6 address family. When AI_ALL is logically or'd with AI_V4MAPPED flag then the caller wants all addresses: IPv6 and IPv4-mapped IPv6. A query is first made for AAAA records and if successful, the IPv6 addresses are returned. Another query is then made for A records and any found are returned as IPv4-mapped IPv6 addresses. h_length will be 16. Only if both queries fail does the function return a NULL pointer. This flag is ignored unless af equals AF_INET6.

- The AI_ADDRCONFIG flag specifies that a query for AAAA records should occur only if the node has at least one IPv6 source address configured and a query for A records should occur only if the node has at least one IPv4 source address configured.

  For example, if the node has no IPv6 source addresses configured, and af equals

AF_INET6, and the node name being looked up has both
AAAA and A records, then:

(a) if only AI_ADDRCONFIG is specified, the function returns a
NULL pointer;
(b) if AI_ADDRCONFIG | AI_V4MAPPED is specified, the A records
are returned as IPv4-mapped IPv6 addresses;

The special flags value of AI_DEFAULT is defined as

```
#define  AI_DEFAULT  (AI_V4MAPPED | AI_ADDRCONFIG)
```

We noted that the getipnodebyname() function must allow the name argument to be either a node name or a literal address string (i.e., a dotted-decimal IPv4 address or an IPv6 hex address). This saves applications from having to call inet_pton() to handle literal address strings.

There are four scenarios based on the type of literal address string and the value of the af argument.

The two simple cases are:

When name is a dotted-decimal IPv4 address and af equals AF_INET, or when name is an IPv6 hex address and af equals AF_INET6. The members of the returned hostent
structure are: h_name points to a copy of the name argument, h_aliases is a NULL pointer, h_addrtype is a copy of the af argument, h_length is either 4 (for AF_INET) or 16 (for AF_INET6), h_addr_list[0] is a pointer to the 4-byte or 16-byte binary address, and h_addr_list[1] is a NULL pointer.

When name is a dotted-decimal IPv4 address and af equals AF_INET6, and flags equals AI_V4MAPPED, an IPv4-mapped IPv6 address is returned: h_name points to an IPv6 hex address containing the IPv4-mapped IPv6 address, h_aliases is a NULL pointer, h_addrtype is AF_INET6, h_length is 16, h_addr_list[0] is a pointer to the 16-byte binary address, and h_addr_list[1] is a NULL pointer. If AI_V4MAPPED is set (with or without AI_ALL) return IPv4-mapped otherwise return NULL.

It is an error when name is an IPv6 hex address and af equals AF_INET. The function's return value is a NULL pointer and error_num equals HOST_NOT_FOUND.

6.2 Address-To-Nodename Translation

The following function has the same arguments as the existing gethostbyaddr() function, but adds an error number.

```
#include <sys/socket.h>
#include <netdb.h>

struct hostent *getipnodebyaddr(const void *src, size_t len, int af,
                                int *error_num);
```

As with getipnodebyname(), getipnodebyaddr() must be thread safe. The error_num value is returned to the caller with the appropriate error code, to support thread safe error code returns. The following error conditions may be returned for error_num:

HOST_NOT_FOUND

No such host is known.

NO_ADDRESS

The server recognized the request and the name but no address is available. Another type of request to the name server for the domain might return an answer.

NO_RECOVERY

An unexpected server failure occurred which cannot be recovered.

TRY_AGAIN

A temporary and possibly transient error occurred, such as a failure of a server to respond.

One possible source of confusion is the handling of IPv4-mapped IPv6 addresses and IPv4-compatible IPv6 addresses, but the following logic should apply.

1. If af is AF_INET6, and if len equals 16, and if the IPv6 address is an IPv4-mapped IPv6 address or an IPv4-compatible IPv6 address, then skip over the first 12 bytes of the IPv6 address, set af to AF_INET, and set len to 4.

2. If af is AF_INET, lookup the name for the given IPv4 address
   (e.g., query for a PTR record in the in-addr.arpa domain).

3. If af is AF_INET6, lookup the name for the given IPv6 address
   (e.g., query for a PTR record in the ip6.int domain).

4. If the function is returning success, then the single address that
   is returned in the hostent structure is a copy of the first argument
   to the function with the same address family that was passed as

   an argument to this function.

All four steps listed are performed, in order. Also note that the IPv6
hex addresses "::" and "::1" MUST NOT be treated as IPv4-compatible

addresses, and if the address is "::", HOST_NOT_FOUND MUST be returned
and a query of the address not performed.

Also for the macro in section 6.7 IN6_IS_ADDR_V4COMPAT MUST return false
for "::" and "::1".

6.3 Freeing memory for getipnodebyname and getipnodebyaddr

The hostent structure does not change from its existing definition.
This structure, and the information pointed to by this structure, are
dynamically allocated by getipnodebyname and getipnodebyaddr. The
following function frees this memory:

```
#include <netdb.h>

void freehostent(struct hostent *ptr);
```

6.4 Protocol-Independent Nodename and Service Name Translation

Nodename-to-address translation

is done in a protocol-independent
fashion using the getaddrinfo() function that is taken from the
Institute of Electrical and Electronic Engineers (IEEE) POSIX 1003.1g
(Protocol Independent Interfaces) draft specification [3].

The official specification for this function will be the final POSIX
standard, with the following additional requirements:

- getaddrinfo() (along with the getnameinfo() function described in
  the next section) must be thread safe.

- The AI_NUMERICHOST is new with this document.

- All fields in socket address structures returned by getaddrinfo()
  that are not filled in through an explicit argument (e.g.,
  sin6_flowinfo and sin_zero) must be set to 0. (This makes it easier
  to compare socket address structures.)

- getaddrinfo() must fill in the length field of a socket address structure
  (e.g., sin6_len) on systems that support this field.

We are providing this independent description of the function because
POSIX
standards are not freely available (as are IETF documents).

```
#include <sys/socket.h>
#include <netdb.h>

int getaddrinfo(const char *nodename, const char *servname,
                const struct addrinfo *hints,
                struct addrinfo **res);
```

The addrinfo structure is defined as a result of including the <netdb.h>
header.

```
struct addrinfo {
```



```
    int     ai_flags;     /* AI_PASSIVE, AI_CANONNAME, AI_NUMERICHOST */
    int     ai_family;    /* PF_xxx */
    int     ai_socktype;  /* SOCK_xxx */
    int     ai_protocol;  /* 0 or IPPROTO_xxx for IPv4 and IPv6 */
```

```
  size_t  ai_addrlen;   /* length of ai_addr */
  char   *ai_canonname; /* canonical name for nodename */
  struct sockaddr  *ai_addr; /* binary address */
  struct addrinfo  *ai_next; /* next structure in linked list */
};
```

The return
value from the function is 0 upon success or a nonzero error
code. The following names are the nonzero error codes from
getaddrinfo(), and are defined in <netdb.h>:

```
EAI_ADDRFAMILY  address family for nodename not supported
EAI_AGAIN       temporary failure in name resolution
EAI_BADFLAGS    invalid value for ai_flags
EAI_FAIL        non-recoverable failure in name resolution
EAI_FAMILY      ai_family not supported
EAI_MEMORY      memory allocation failure
EAI_NODATA      no address associated with nodename
EAI_NONAME      nodename nor servname provided, or not known
EAI_SERVICE     servname not supported for ai_socktype
EAI_SOCKTYPE    ai_socktype not supported
EAI_SYSTEM      system error returned in errno
```

The nodename and servname arguments are pointers to null-terminated
strings or NULL. One or both of these two arguments must be a non-NULL
pointer. In the normal client scenario, both the nodename and servname
are specified. In the normal server
scenario, only the servname is
specified. A non-NULL nodename string can be either a node name or a
numeric host address string (i.e., a dotted-decimal IPv4 address or an
IPv6 hex address). A non-NULL servname string can be either a service
name or a decimal port number.

The caller can optionally pass an addrinfo structure, pointed to by the
third argument, to provide hints concerning the type of socket that the
caller supports. In this hints structure all members other than
ai_flags, ai_family, ai_socktype, and ai_protocol must be zero or a NULL
pointer. A value of PF_UNSPEC for ai_family means the caller will
accept any protocol family. A value of 0 for ai_socktype means the
caller will accept any socket type. A value of 0 for ai_protocol means
the caller will accept any protocol. For example, if the caller handles
only TCP and not UDP, then the ai_socktype member of the hints structure
should be set to SOCK_STREAM when getaddrinfo() is called. If the
caller handles only
IPv4 and not IPv6, then the ai_family member of the
hints structure should be set to PF_INET when getaddrinfo() is called.
If the third argument to getaddrinfo() is a NULL pointer, this is the
same as if the caller had filled in an addrinfo structure initialized to

zero with ai_family set to PF_UNSPEC.

Upon successful return a pointer to a linked list of one or more addrinfo structures is returned through the final argument. The caller can process each addrinfo structure in this list by following the ai_next pointer, until a NULL pointer is encountered. In each returned addrinfo structure the three members ai_family, ai_socktype, and ai_protocol are the corresponding arguments for a call to the socket() function. In each addrinfo structure the ai_addr member points to a

filled-in socket address structure whose length is specified by the
ai_addrlen member.

If the AI_PASSIVE bit is set in the ai_flags member of the hints structure, then the caller plans to use the returned socket address structure in a call to bind(). In this case, if the nodename argument is a NULL pointer, then the IP address portion of the socket address structure will be set to INADDR_ANY for an IPv4 address or IN6ADDR_ANY_INIT for an IPv6 address.

If the AI_PASSIVE bit is not set in the ai_flags member of the hints structure, then the returned socket address structure will be ready for a call to connect() (for a connection-oriented protocol) or either connect(), sendto(), or sendmsg() (for a connectionless protocol). In this case, if the nodename argument is a NULL pointer, then the IP address portion of the socket address structure will be set to the loopback address.

If the AI_CANONNAME bit is set in the ai_flags member of the hints structure, then upon successful return the ai_canonname member of the first addrinfo structure in the linked list will point to a null-terminated string containing the canonical name of the specified nodename.

If the AI_NUMERICHOST bit is set in the ai_flags member of the hints structure, then a non-NULL nodename string must be a numeric host address string. Otherwise an error of EAI_NONAME is returned. This flag prevents any type of name resolution service (e.g., the DNS) from being called.

All of the information returned by getaddrinfo() is dynamically allocated: the addrinfo structures, and the socket address structures and canonical node name strings pointed to by the addrinfo structures. To return this information to the system the function freeaddrinfo() is called:

```
#include <sys/socket.h>
#include <netdb.h>

void freeaddrinfo(struct addrinfo *ai);
```

The addrinfo structure pointed to by the ai argument is freed, along with any dynamic storage pointed to by the structure. This operation is repeated until a NULL ai_next pointer is encountered.

To aid applications in printing error messages based on the EAI_xxx codes returned by getaddrinfo(), the following function is defined.

```
#include <sys/socket.h>
#include <netdb.h>

char *gai_strerror(int ecode);
```

The argument is one of the EAI_xxx values defined earlier and the return value points to a string describing the error. If the argument is not one of the EAI_xxx values, the function still returns a pointer to a string whose contents indicate an unknown error.

6.5 Socket Address Structure to Nodename and Service Name

The POSIX 1003.1g specification includes no function to perform the reverse conversion from getaddrinfo(): to look up a nodename and service name, given the binary address and port. Therefore, we define the following function:

```
#include <sys/socket.h>
#include <netdb.h>
```

```
 int getnameinfo(const struct sockaddr *sa, socklen_t
salen,
                char *host, size_t hostlen,
                char *serv, size_t servlen,
                int flags);
```

This function looks up an IP address and port number provided by the caller in the DNS and system-specific database, and returns text strings for both in buffers provided by the caller. The function indicates successful completion by a zero return value; a non-zero return value indicates failure.

The first argument, sa, points to either a sockaddr_in structure (for IPv4) or a sockaddr_in6 structure (for IPv6) that holds the IP address and port number. The salen argument gives the length of the sockaddr_in or sockaddr_in6 structure.

The function returns the nodename associated with the IP address in the buffer pointed to by the host argument. The caller provides the size of this buffer via the hostlen argument. The service name associated with the port number is returned in the buffer pointed to by serv, and the servlen argument gives the length
of this buffer. The caller specifies
not to return either string by providing a zero value for the hostlen or servlen arguments. Otherwise, the caller must provide buffers large enough to hold the nodename and the service name, including the terminating null characters.

Unfortunately most systems do not provide constants that specify the maximum size of either a fully-qualified domain name or a service name. Therefore to aid the application in allocating buffers for these two returned strings the following constants are defined in <netdb.h>:

```
 #define NI_MAXHOST  1025
 #define NI_MAXSERV    32
```

The first value is actually defined as the constant MAXDNAME in recent versions of BIND's <arpa/nameser.h> header (older versions of BIND define this constant to be 256) and the second is a guess based on the services listed in the current Assigned Numbers RFC.

The final argument is a flag that changes the default actions of this function. By default the fully-qualified domain name (FQDN)
for the
host is looked up in the DNS and returned. If the flag bit NI_NOFQDN is set, only the nodename portion of the FQDN is returned for local hosts.

If the flag bit NI_NUMERICHOST is set, or if the host's name cannot be

located in the DNS, the numeric form of the host's address is returned instead of its name (e.g., by calling inet_ntop() instead of getipnodebyaddr()). If the flag bit NI_NAMEREQD is set, an error is

returned if the host's name cannot be located in the DNS.

If the flag bit NI_NUMERICSERV is set, the numeric form of the service address is returned (e.g., its port number) instead of its name. The two NI_NUMERICxxx flags are required to support the "-n" flag that many commands provide.

A fifth flag bit, NI_DGRAM, specifies that the service is a datagram service, and causes getservbyport() to be called with a second argument
of "udp" instead of its default of "tcp". This is required for the few ports (e.g. 512-514) that have different services for UDP and TCP.

These NI_xxx flags are defined in <netdb.h> along with the AI_xxx flags already defined for getaddrinfo().

6.6 Address Conversion Functions

The two functions inet_addr() and inet_ntoa() convert an IPv4 address between binary and text form. IPv6 applications need similar functions. The following two functions convert both IPv6 and IPv4 addresses:

```
#include <sys/socket.h>
#include <arpa/inet.h>

int inet_pton(int af, const char *src, void *dst);

const char *inet_ntop(int af, const void *src,
                      char *dst, size_t size);
```

The inet_pton() function converts an address in its standard text presentation form into its numeric binary form. The af argument specifies the family of the address. Currently the AF_INET and AF_INET6 address families are supported. The src argument points to the string being passed

in. The dst argument points to a buffer into which the function stores the numeric address. The address is returned in network byte order. Inet_pton() returns 1 if the conversion succeeds, 0 if the input is not a valid IPv4 dotted-decimal string or a valid IPv6 address string, or -1 with errno set to EAFNOSUPPORT if the af argument is unknown. The calling application must ensure that the buffer referred to by dst is large enough to hold the numeric address (e.g., 4 bytes for AF_INET or 16 bytes for AF_INET6).

If the af argument is AF_INET, the function accepts a string in the standard IPv4 dotted-decimal form:

ddd.ddd.ddd.ddd

where ddd is a one to three digit decimal number between 0 and 255. Note that many implementations of the existing inet_addr() and inet_aton() functions accept nonstandard input: octal numbers, hexadecimal numbers, and fewer than four numbers. inet_pton() does not accept these formats.

If the af argument is AF_INET6, then the function accepts a string in one of the standard IPv6 text forms defined in Section 2.2 of the addressing architecture specification [2].

The inet_ntop() function converts a numeric address into a text string suitable for presentation. The af argument specifies the family of the address. This can be AF_INET or AF_INET6. The src argument points to a buffer holding an IPv4 address if the af argument is AF_INET, or an IPv6 address if the af argument is AF_INET6, the address must be in network byte order. The dst argument points to a buffer where the function will store the resulting text string. The size argument specifies the size of this buffer. The application must specify a non-NULL dst argument. For IPv6 addresses, the buffer must be at least 46-octets. For IPv4 addresses, the buffer must be at least 16-octets. In order to allow applications to easily declare buffers of the proper size to store IPv4 and IPv6 addresses in string form, the following two constants are defined in <netinet/in.h>:

#define INET_ADDRSTRLEN 16

```
#define INET6_ADDRSTRLEN   46
```

The inet_ntop() function returns a pointer to the buffer containing the text string if the conversion succeeds, and NULL otherwise. Upon failure, errno is set to EAFNOSUPPORT if the af argument is invalid or ENOSPC if the size of the result buffer is inadequate.

6.7 Address Testing Macros

The following macros can be used to test for special IPv6 addresses.

```
#include <netinet/in.h>

int  IN6_IS_ADDR_UNSPECIFIED (const struct in6_addr *);
int  IN6_IS_ADDR_LOOPBACK    (const struct in6_addr *);
int  IN6_IS_ADDR_MULTICAST   (const struct in6_addr *);
int  IN6_IS_ADDR_LINKLOCAL   (const struct in6_addr *);
int  IN6_IS_ADDR_SITELOCAL   (const struct in6_addr *);
int  IN6_IS_ADDR_V4MAPPED    (const struct in6_addr *);
int  IN6_IS_ADDR_V4COMPAT    (const
struct in6_addr *);

int  IN6_IS_ADDR_MC_NODELOCAL(const struct in6_addr *);
int  IN6_IS_ADDR_MC_LINKLOCAL(const struct in6_addr *);
int  IN6_IS_ADDR_MC_SITELOCAL(const struct in6_addr *);
int  IN6_IS_ADDR_MC_ORGLOCAL (const struct in6_addr *);
int  IN6_IS_ADDR_MC_GLOBAL   (const struct in6_addr *);
```

The first seven macros return true if the address is of the specified type, or false otherwise. The last five test the scope of a multicast address and return true if the address is a multicast address of the specified scope or false if the address is either not a multicast address or not of the specified scope. Note that IN6_IS_ADDR_LINKLOCAL and IN6_IS_ADDR_SITELOCAL return true only for the two local-use IPv6 unicast addresses. These two macros do not return true for IPv6 multicast addresses of either link-local scope or site-local scope.

7. Summary of New Definitions

The following list summarizes the constants, structure, and extern definitions discussed in this memo, sorted by header.

<net/if.h> IF_NAMESIZE
<net/if.h> struct if_nameindex{};

<netdb.h> AI_ADDRCONFIG
<netdb.h> AI_DEFAULT
<netdb.h> AI_ALL
<netdb.h> AI_CANONNAME
<netdb.h> AI_NUMERICHOST
<netdb.h> AI_PASSIVE
<netdb.h> AI_V4MAPPED
<netdb.h> EAI_ADDRFAMILY
<netdb.h> EAI_AGAIN
<netdb.h> EAI_BADFLAGS
<netdb.h> EAI_FAIL
<netdb.h> EAI_FAMILY
<netdb.h> EAI_MEMORY
<netdb.h> EAI_NODATA
<netdb.h> EAI_NONAME
<netdb.h> EAI_SERVICE
<netdb.h> EAI_SOCKTYPE
<netdb.h> EAI_SYSTEM
<netdb.h> NI_DGRAM
<netdb.h> NI_MAXHOST
<netdb.h> NI_MAXSERV
<netdb.h> NI_NAMEREQD
<netdb.h> NI_NOFQDN
<netdb.h> NI_NUMERICHOST
<netdb.h>
NI_NUMERICSERV
<netdb.h> struct addrinfo{};

<netinet/in.h> IN6ADDR_ANY_INIT
<netinet/in.h> IN6ADDR_LOOPBACK_INIT
<netinet/in.h> INET6_ADDRSTRLEN
<netinet/in.h> INET_ADDRSTRLEN
<netinet/in.h> IPPROTO_IPV6
<netinet/in.h> IPV6_JOIN_GROUP
<netinet/in.h> IPV6_LEAVE_GROUP

```
 <netinet/in.h>  IPV6_MULTICAST_HOPS
 <netinet/in.h>  IPV6_MULTICAST_IF
 <netinet/in.h>  IPV6_MULTICAST_LOOP
 <netinet/in.h>  IPV6_UNICAST_HOPS
 <netinet/in.h>  SIN6_LEN
 <netinet/in.h>  extern const struct in6_addr in6addr_any;
 <netinet/in.h>  extern const struct in6_addr in6addr_loopback;
 <netinet/in.h>  struct in6_addr{};
 <netinet/in.h>  struct ipv6_mreq{};
 <netinet/in.h>  struct sockaddr_in6{};

 <sys/socket.h>  AF_INET6
 <sys/socket.h>  PF_INET6
 <sys/socket.h>  struct sockaddr_storage;
```

The following list summarizes the function and macro prototypes

discussed in this memo, sorted by header.

```
 <arpa/inet.h>   int inet_pton(int, const char *, void *);
 <arpa/inet.h>   const char *inet_ntop(int, const void *,
                          char *, size_t);

 <net/if.h>      char *if_indextoname(unsigned int, char *);
 <net/if.h>      unsigned int if_nametoindex(const char *);
 <net/if.h>      void if_freenameindex(struct if_nameindex *);
 <net/if.h>      struct if_nameindex *if_nameindex(void);

 <netdb.h>       int getaddrinfo(const char *, const char *,
                         const struct addrinfo *,
                         struct addrinfo **);
 <netdb.h>       int getnameinfo(const struct sockaddr *, socklen_t,
                         char *, size_t, char *, size_t, int);
 <netdb.h>       void freeaddrinfo(struct addrinfo *);
 <netdb.h>       char *gai_strerror(int);
 <netdb.h>       struct hostent *getipnodebyname(const
char *, int, int,
                          int *);
 <netdb.h>       struct hostent *getipnodebyaddr(const void *, size_t, int,
                          int *);
```

<netdb.h> void freehostent(struct hostent *);

<netinet/in.h> int IN6_IS_ADDR_LINKLOCAL(const struct in6_addr *);
<netinet/in.h> int IN6_IS_ADDR_LOOPBACK(const struct in6_addr *);
<netinet/in.h> int IN6_IS_ADDR_MC_GLOBAL(const struct in6_addr *);
<netinet/in.h> int IN6_IS_ADDR_MC_LINKLOCAL(const struct in6_addr *);
<netinet/in.h> int IN6_IS_ADDR_MC_NODELOCAL(const struct in6_addr *);
<netinet/in.h> int IN6_IS_ADDR_MC_ORGLOCAL(const struct in6_addr *);
<netinet/in.h> int IN6_IS_ADDR_MC_SITELOCAL(const struct in6_addr *);
<netinet/in.h> int IN6_IS_ADDR_MULTICAST(const struct in6_addr *);
<netinet/in.h> int IN6_IS_ADDR_SITELOCAL(const struct in6_addr *);
<netinet/in.h> int IN6_IS_ADDR_UNSPECIFIED(const struct in6_addr *);
<netinet/in.h>
int IN6_IS_ADDR_V4COMPAT(const struct in6_addr *);
<netinet/in.h> int IN6_IS_ADDR_V4MAPPED(const struct in6_addr *);

8. Security Considerations

IPv6 provides a number of new security mechanisms, many of which need to be accessible to applications. Companion memos detailing the extensions to the socket interfaces to support IPv6 security are being written.

9. Year 2000 Considerations

There are no issues for this draft concerning the Year 2000 issue regarding the use of dates.

Changes From RFC 2133

Changes made in the March 1998 Edition (-01 draft):

Changed all "hostname" to "nodename" for consistency with other IPv6 documents.

Section 3.3: changed comment for sin6_flowinfo to be "traffic class & flow info" and updated corresponding text description to current definition of these two fields.

Section 3.10 ("Portability Additions") is new.

Section 6: a new paragraph was added reiterating that the existing gethostbyname() and gethostbyaddr() are not changed.

Section 6.1: change gethostbyname3() to getnodebyname(). Add AI_DEFAULT to handle majority of applications. Renamed AI_V6ADDRCONFIG to AI_ADDRCONFIG and define it for A records and IPv4 addresses too. Defined exactly what getnodebyname() must return if the name argument is a numeric address string.

Section 6.2: change gethostbyaddr() to getnodebyaddr(). Reword items 2 and 3 in the description of how to handle IPv4-mapped and IPv4-compatible addresses to "lookup a name" for a given address, instead of specifying what type of DNS query to issue.

Section 6.3: added two more requirements to getaddrinfo().

Section 7: added the following constants to the list for <netdb.h>: AI_ADDRCONFIG, AI_ALL, and AI_V4MAPPED. Add union sockaddr_union and SA_LEN to the lists for <sys/socket.h>.

Updated references.

Changes made in the November 1997 Edition (-00 draft):

The data types have been changed to conform with Draft 6.6 of the Posix 1003.1g standard.

Section 3.2: data type of s6_addr changed to "uint8_t".

Section 3.3: data type of sin6_family changed to "sa_family_t". data type of sin6_port changed to "in_port_t", data type of sin6_flowinfo changed to "uint32_t".

Section 3.4: same as Section 3.3, plus data type of sin6_len changed to "uint8_t".

Section 6.2: first argument of gethostbyaddr() changed from "const

char *" to "const void *" and second argument changed from "int" to "size_t".

Section 6.4: second argument of getnameinfo() changed from "size_t" to "socklen_t".

The wording was changed when new structures were defined, to be more explicit as to which header must be included to define the structure:

Section 3.2 (in6_addr{}), Section 3.3 (sockaddr_in6{}), Section 3.4 (sockaddr_in6{}), Section 4.3 (if_nameindex{}), Section 5.3 (ipv6_mreq{}), and Section 6.3 (addrinfo{}).

Section 4: NET_RT_LIST changed to NET_RT_IFLIST.

Section 5.1: The IPV6_ADDRFORM socket option was removed.

Section 5.3: Added a note that an option value other than 0 or 1 for IPV6_MULTICAST_LOOP returns an error. Added a note that IPV6_MULTICAST_IF, IPV6_MULTICAST_HOPS, and IPV6_MULTICAST_LOOP can also be used with getsockopt(), but IPV6_ADD_MEMBERSHIP and IPV6_DROP_MEMBERSHIP cannot be used with getsockopt().

Section 6.1: Removed the description of gethostbyname2() and its associated RES_USE_INET6 option, replacing it with gethostbyname3().

Section 6.2: Added requirement that gethostbyaddr() be thread safe. Reworded step 4 to avoid using the RES_USE_INET6 option.

Section 6.3: Added the requirement that getaddrinfo()
and
getnameinfo() be thread safe. Added the AI_NUMERICHOST flag.

Section 6.6: Added clarification about IN6_IS_ADDR_LINKLOCAL and IN6_IS_ADDR_SITELOCAL macros.

Changes made to the draft -01 specification Sept 98

Changed priority to traffic class in the spec.

Added the need for scope identification in section 2.1.

Added sin6_scope_id to struct sockaddr_in6 in sections 3.3 and 3.4.

Changed 3.10 to use generic storage structure to support holding IPv6
addresses and removed the SA_LEN macro.

Distinguished between invalid input parameters and system failures
for Interface Identification in Section 4.1 and 4.2.

Added defaults for multicast operations in section 5.2 and changed
the names from ADD to JOIN and DROP to LEAVE to be consistent with
IPv6 multicast terminology.

Changed getnodebyname to getipnodebyname, getnodebyaddr to
getipnodebyaddr, and added MT safe error code to function parameters
in section 6.

Moved freehostent
to its own sub-section after getipnodebyaddr now
6.3 (so this bumps all remaining sections in section 6.

Clarified the use of AI_ALL and AI_V4MAPPED that these are dependent
on the AF parameter and must be used as a conjunction in section 6.1.

Removed the restriction that literal addresses cannot be used with a
flags argument in section 6.1.

Added Year 2000 Section to the draft

Deleted Reference to the following because the attached is deleted from
the ID directory and has expired. But the logic from the aforementioned
draft still applies, so that was kept in Section 6.2 bullets after 3rd
paragraph.

[7] P. Vixie, "Reverse Name Lookups of Encapsulated IPv4 Addresses
in IPv6", Internet-Draft, <draft-vixie-ipng-ipv4ptr-00.txt>,
May 1996.

Deleted the following reference as it is no
longer referenced.
And the draft has expired.

[3] D. McDonald, "A Simple IP Security API Extension to BSD Sockets",
Internet-Draft, <draft-mcdonald-simple-ipsec-api-01.txt>,
March 1997.

Deleted the following reference as it is no longer referenced.

[4] C. Metz, "Network Security API for Sockets",
Internet-Draft, <draft-metz-net-security-api-01.txt>,
January 1998.

Update current references to current status.

Added alignment notes for in6_addr and sin6_addr.

Clarified further that AI_V4MAPPED must be used with a dotted IPv4 literal address for getipnodebyname(), when address family is AF_INET6.

Added text to clarify "::" and "::1" when used by getipnodebyaddr().

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The getaddrinfo() and getnameinfo() functions are taken from an earlier Internet Draft by Keith Sklower. As noted in that draft, William Durst, Steven Wise, Michael Karels, and Eric Allman provided many useful discussions on the subject of protocol-independent name-to-address translation, and reviewed early versions of Keith Sklower's original proposal. Eric Allman implemented the first prototype of getaddrinfo(). The observation that specifying the pair of name and service would suffice for connecting to a service independent of protocol details was made by Marshall Rose in a proposal to X/Open for a "Uniform Network Interface".

Craig Metz, Jack McCann, Erik Nordmark, Tim Hartrick, and Mukesh Kacker made many contributions to this document. Ramesh Govindan made a number

of contributions and co-authored an earlier version of this memo.

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[2] R. Hinden, S. Deering, "IP Version 6 Addressing Architecture", RFC 2373, July 1998 Draft Standard.

[3] IEEE, "Protocol Independent Interfaces", IEEE Std 1003.1g, DRAFT 6.6, March 1997.

[4] W. Stevens, M. Thomas, "Advanced Sockets API for IPv6", RFC 2292, February 1998.

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./bin/python/isc/eventlist.py.in PYTHON 2015,2016,2018,2019,2020,2021,2022
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./bin/python/isc/keyzone.py.in PYTHON 2013,2014,2015,2016,2018,2019,2020,2021,2022
./bin/python/isc/policy.py.in PYTHON 2016,2017,2018,2019,2020,2021,2022
./bin/python/isc/rndc.py.in PYTHON 2016,2018,2019,2020,2021,2022
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./bin/python/isc/tests/test-policies/02-prepublish.pol CONF-C 2016,2018,2019,2020,2021,2022
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./bin/python/isc/tests/test-policies/05-numeric-zone.pol CONF-C 2017,2018,2019,2020,2021,2022
./bin/python/isc/tests/testdata/Kexample.com.+007+35529.key X 2016,2018,2019,2020,2021,2022
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./bin/tests/system/additional/clean.sh SH 2013,2014,2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/additional/ns1/mx.db ZONE 2016,2018,2019,2020,2021,2022
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./bin/tests/system/auth/clean.sh SH 2018,2019,2020,2021,2022
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./bin/tests/system/autosign/ns2/Xbar.+005+30676.key X 2010,2018,2019,2020,2021,2022
./bin/tests/system/autosign/ns2/Xbar.+005+30676.private X 2010,2018,2019,2020,2021,2022
./bin/tests/system/autosign/ns2/Xbar.+005+30804.key X 2010,2018,2019,2020,2021,2022
./bin/tests/system/autosign/ns2/Xbar.+005+30804.private X 2010,2018,2019,2020,2021,2022
./bin/tests/system/autosign/ns2/bar.db.in ZONE 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/autosign/ns2/child.nsec3.example.db ZONE 2009,2016,2018,2019,2020,2021,2022
./bin/tests/system/autosign/ns2/child.optout.example.db ZONE 2009,2016,2018,2019,2020,2021,2022
./bin/tests/system/autosign/ns2/dst.example.db.in ZONE 2009,2016,2018,2019,2020,2021,2022
./bin/tests/system/autosign/ns2/example.db.in ZONE 2009,2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/autosign/ns2/insecure.secure.example.db ZONE 2009,2016,2018,2019,2020,2021,2022
./bin/tests/system/autosign/ns2/keygen.sh SH 2009,2010,2011,2012,2014,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/autosign/ns2/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/autosign/ns2/private.secure.example.db.in ZONE 2009,2016,2018,2019,2020,2021,2022
./bin/tests/system/autosign/ns3/autonsec3.example.db.in ZONE 2011,2016,2018,2019,2020,2021,2022
./bin/tests/system/autosign/ns3/delay.example.db ZONE 2011,2016,2018,2019,2020,2021,2022
./bin/tests/system/autosign/ns3/delzsk.example.db.in ZONE 2018,2019,2020,2021,2022
./bin/tests/system/autosign/ns3/dname-at-apex-nsec3.example.db.in ZONE 2018,2019,2020,2021,2022

./bin/tests/system/autosign/ns3/inacksk2.example.db.in ZONE 2017,2018,2019,2020,2021,2022
./bin/tests/system/autosign/ns3/inacksk3.example.db.in ZONE 2017,2018,2019,2020,2021,2022
./bin/tests/system/autosign/ns3/inaczsk.example.db.in ZONE 2011,2016,2018,2019,2020,2021,2022
./bin/tests/system/autosign/ns3/inaczsk2.example.db.in ZONE 2017,2018,2019,2020,2021,2022
./bin/tests/system/autosign/ns3/inaczsk3.example.db.in ZONE 2017,2018,2019,2020,2021,2022
./bin/tests/system/autosign/ns3/insecure.example.db ZONE 2009,2016,2018,2019,2020,2021,2022
./bin/tests/system/autosign/ns3/jitter.nsec3.example.db.in ZONE 2019,2020,2021,2022
./bin/tests/system/autosign/ns3/keygen.sh SH
2009,2010,2011,2012,2014,2015,2016,2017,2018,2019,2020,2021,2022
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./bin/tests/system/autosign/ns3/rsasha512.example.db.in ZONE 2009,2016,2018,2019,2020,2021,2022
./bin/tests/system/autosign/ns3/secure-to-insecure.example.db.in ZONE 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/autosign/ns3/secure-to-insecure2.example.db.in ZONE 2010,2016,2018,2019,2020,2021,2022
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./bin/tests/system/chain/ns2/generic.db ZONE 2017,2018,2019,2020,2021,2022
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./bin/tests/system/chain/prereq.sh SH 2017,2018,2019,2020,2021,2022
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./bin/tests/system/checkconf/bad-lmdb-mapsize-toolarge.conf CONF-C 2017,2018,2019,2020,2021,2022
./bin/tests/system/checkconf/bad-lmdb-mapsize-toosmall.conf CONF-C 2017,2018,2019,2020,2021,2022
./bin/tests/system/checkconf/bad-lmdb-mapsize-unlimited.conf CONF-C 2017,2018,2019,2020,2021,2022
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./bin/tests/system/checkconf/bad-noddns.conf CONF-C 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/checkconf/bad-options-also-notify.conf CONF-C 2016,2018,2019,2020,2021,2022
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./bin/tests/system/checkconf/bad-rate-limit-all-per-second.conf CONF-C 2016,2018,2019,2020,2021,2022
./bin/tests/system/checkconf/bad-rate-limit-errors-per-second.conf CONF-C 2016,2018,2019,2020,2021,2022
./bin/tests/system/checkconf/bad-rate-limit-ipv4-prefix-length.conf CONF-C 2016,2018,2019,2020,2021,2022
./bin/tests/system/checkconf/bad-rate-limit-ipv6-prefix-length.conf CONF-C 2016,2018,2019,2020,2021,2022
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./bin/tests/system/checkconf/bad-rate-limit-nodata-per-second.conf CONF-C 2016,2018,2019,2020,2021,2022
./bin/tests/system/checkconf/bad-rate-limit-nxdomains-per-second.conf CONF-C 2016,2018,2019,2020,2021,2022
./bin/tests/system/checkconf/bad-rate-limit-qps-scale.conf CONF-C 2016,2018,2019,2020,2021,2022
./bin/tests/system/checkconf/bad-rate-limit-referrals-per-second.conf CONF-C 2016,2018,2019,2020,2021,2022
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./bin/tests/system/checkconf/bad-rate-limit-slip.conf CONF-C 2016,2018,2019,2020,2021,2022
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./bin/tests/system/checkconf/bad-tsig.conf CONF-C 2012,2013,2016,2018,2019,2020,2021,2022
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./bin/tests/system/checkconf/max-ttl.conf CONF-C 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/checkconf/maxttl-bad.conf CONF-C 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/checkconf/maxttl-bad.db ZONE 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/checkconf/maxttl.db ZONE 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/checkconf/notify.conf CONF-C 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/checkconf/portrange-good.conf CONF-C 2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/checkconf/range.conf CONF-C 2013,2016,2018,2019,2020,2021,2022
./bin/tests/system/checkconf/shared.example.db ZONE 2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/checkconf/tests.sh SH
2005,2007,2010,2011,2012,2013,2014,2015,2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/checkconf/view-class-any1.conf CONF-C 2016,2018,2019,2020,2021,2022
./bin/tests/system/checkconf/view-class-any2.conf CONF-C 2016,2018,2019,2020,2021,2022
./bin/tests/system/checkconf/view-class-in1.conf CONF-C 2016,2018,2019,2020,2021,2022
./bin/tests/system/checkconf/view-class-in2.conf CONF-C 2016,2018,2019,2020,2021,2022
./bin/tests/system/checkconf/warn-address-prefix-length-mismatch.conf CONF-C 2020,2021,2022
./bin/tests/system/checkconf/warn-dlv-auto.conf CONF-C 2017,2018,2019,2020,2021,2022
./bin/tests/system/checkconf/warn-dlv-dlv.isc.org.conf CONF-C 2017,2018,2019,2020,2021,2022
./bin/tests/system/checkconf/warn-duplicate-key.conf CONF-C 2019,2020,2021,2022
./bin/tests/system/checkconf/warn-duplicate-root-key.conf CONF-C 2019,2020,2021,2022
./bin/tests/system/checkconf/warn-keydir.conf CONF-C 2013,2016,2018,2019,2020,2021,2022
./bin/tests/system/checkconf/warn-validation-auto-key.conf CONF-C 2019,2020,2021,2022
./bin/tests/system/checkds/clean.sh SH 2012,2013,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/checkds/dig.bat BAT 2016,2018,2019,2020,2021,2022
./bin/tests/system/checkds/dig.pl PERL 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/checkds/dig.sh SH 2012,2013,2016,2018,2019,2020,2021,2022
./bin/tests/system/checkds/missing.example.dlv.example.dlv.db X 2012,2018,2019,2020,2021,2022
./bin/tests/system/checkds/missing.example.dnskey.db X 2012,2018,2019,2020,2021,2022
./bin/tests/system/checkds/missing.example.ds.db X 2012,2018,2019,2020,2021,2022
./bin/tests/system/checkds/none.example.dlv.example.dlv.db X 2012,2018,2019,2020,2021,2022
./bin/tests/system/checkds/none.example.dnskey.db X 2012,2018,2019,2020,2021,2022
./bin/tests/system/checkds/none.example.ds.db X 2012,2018,2019,2020,2021,2022
./bin/tests/system/checkds/ok.example.dlv.example.dlv.db X 2012,2018,2019,2020,2021,2022
./bin/tests/system/checkds/ok.example.dnskey.db X 2012,2018,2019,2020,2021,2022
./bin/tests/system/checkds/ok.example.ds.db X 2012,2018,2019,2020,2021,2022
./bin/tests/system/checkds/tests.sh SH 2012,2013,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/checkds/wrong.example.dlv.example.dlv.db X 2012,2018,2019,2020,2021,2022
./bin/tests/system/checkds/wrong.example.dnskey.db X 2012,2018,2019,2020,2021,2022
./bin/tests/system/checkds/wrong.example.ds.db X 2012,2018,2019,2020,2021,2022
./bin/tests/system/checknames/clean.sh SH 2004,2007,2012,2014,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/checknames/ns1/fail.example.db.in ZONE 2004,2007,2016,2018,2019,2020,2021,2022

./bin/tests/system/checknames/ns1/fail.update.db.in ZONE 2004,2007,2016,2018,2019,2020,2021,2022
./bin/tests/system/checknames/ns1/ignore.example.db.in ZONE 2004,2007,2016,2018,2019,2020,2021,2022
./bin/tests/system/checknames/ns1/ignore.update.db.in ZONE 2004,2007,2016,2018,2019,2020,2021,2022
./bin/tests/system/checknames/ns1/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/checknames/ns1/root.db ZONE 2004,2007,2016,2018,2019,2020,2021,2022
./bin/tests/system/checknames/ns1/warn.example.db.in ZONE 2004,2007,2016,2018,2019,2020,2021,2022
./bin/tests/system/checknames/ns1/warn.update.db.in ZONE 2004,2007,2016,2018,2019,2020,2021,2022
./bin/tests/system/checknames/ns2/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/checknames/ns2/root.hints ZONE 2004,2007,2016,2018,2019,2020,2021,2022
./bin/tests/system/checknames/ns3/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/checknames/ns3/root.hints ZONE 2004,2007,2016,2018,2019,2020,2021,2022
./bin/tests/system/checknames/ns4/master-ignore.update.db.in ZONE 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/checknames/ns4/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/checknames/ns4/root.hints ZONE 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/checknames/setup.sh SH 2004,2007,2012,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/checknames/tests.sh SH 2004,2007,2012,2013,2014,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/checkzone/clean.sh SH 2011,2012,2013,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/checkzone/setup.sh SH 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/checkzone/tests.sh SH 2011,2012,2013,2014,2015,2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/checkzone/zones/bad-badclass.raw X 2015,2018,2019,2020,2021,2022
./bin/tests/system/checkzone/zones/bad-caa-rr.db ZONE 2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/checkzone/zones/bad-cdnskey.db ZONE 2019,2020,2021,2022
./bin/tests/system/checkzone/zones/bad-cds.db ZONE 2019,2020,2021,2022
./bin/tests/system/checkzone/zones/bad-dhcid.db ZONE 2019,2020,2021,2022
./bin/tests/system/checkzone/zones/bad-dns-sd-reverse.db ZONE 2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/checkzone/zones/bad-eid.db ZONE 2019,2020,2021,2022
./bin/tests/system/checkzone/zones/bad-generate-tkey.db ZONE 2018,2019,2020,2021,2022
./bin/tests/system/checkzone/zones/bad-nimloc.db ZONE 2019,2020,2021,2022
./bin/tests/system/checkzone/zones/bad-nsap-empty.db ZONE 2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/checkzone/zones/bad-nsap-odd-nibble.db ZONE 2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/checkzone/zones/bad-nsec3-padded.db ZONE 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/checkzone/zones/bad-nsec3owner-padded.db ZONE 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/checkzone/zones/bad-tkey.db ZONE 2018,2019,2020,2021,2022
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./bin/tests/system/checkzone/zones/bad-unspec.db ZONE 2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/checkzone/zones/bad1.db ZONE 2013,2016,2018,2019,2020,2021,2022
./bin/tests/system/checkzone/zones/bad2.db ZONE 2014,2016,2018,2019,2020,2021,2022
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./bin/tests/system/checkzone/zones/badttl.db ZONE 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/checkzone/zones/crashzone.db ZONE 2016,2018,2019,2020,2021,2022
./bin/tests/system/checkzone/zones/delegating-ns-address-below-dname.db ZONE 2017,2018,2019,2020,2021,2022
./bin/tests/system/checkzone/zones/good-cdnskey.db ZONE 2019,2020,2021,2022
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./bin/tests/system/checkzone/zones/good-nsec3-nopadhash.db ZONE 2014,2016,2018,2019,2020,2021,2022

./bin/tests/system/checkzone/zones/good-occulted-ns-by-dname.db ZONE 2017,2018,2019,2020,2021,2022
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./bin/tests/system/checkzone/zones/nowarn.inherited.owner.db ZONE 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/checkzone/zones/ns-address-below-dname.db ZONE 2017,2018,2019,2020,2021,2022
./bin/tests/system/checkzone/zones/spf.db ZONE 2013,2016,2018,2019,2020,2021,2022
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./bin/tests/system/checkzone/zones/warn.inherit.origin.db ZONE 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/checkzone/zones/warn.inherited.owner.db ZONE 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/cleanall.sh SH 2000,2001,2004,2007,2012,2014,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/cleanpkcs11.sh SH 2010,2012,2014,2016,2018,2019,2020,2021,2022
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./bin/tests/system/conf.sh.win32 SH 2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/cookie/ans9/ans.py PYTHON 2020,2021,2022
./bin/tests/system/cookie/bad-cookie-badaes.conf.in X 2019,2020,2021,2022
./bin/tests/system/cookie/bad-cookie-badhex.conf CONF-C 2014,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/cookie/bad-cookie-badsha1.conf CONF-C 2017,2018,2019,2020,2021,2022
./bin/tests/system/cookie/bad-cookie-badsha256.conf CONF-C 2017,2018,2019,2020,2021,2022
./bin/tests/system/cookie/bad-cookie-badsiphash24.conf X 2019,2020,2021,2022
./bin/tests/system/cookie/bad-cookie-toolong.conf CONF-C 2014,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/cookie/clean.sh SH 2014,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/cookie/good-cookie-aes.conf.in X 2019,2020,2021,2022
./bin/tests/system/cookie/good-cookie-sha1.conf CONF-C 2017,2018,2019,2020,2021,2022
./bin/tests/system/cookie/good-cookie-sha256.conf CONF-C 2017,2018,2019,2020,2021,2022
./bin/tests/system/cookie/good-cookie-siphash24.conf X 2019,2020,2021,2022
./bin/tests/system/cookie/ns1/example.db ZONE 2014,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/cookie/ns1/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/cookie/ns1/root.hint ZONE 2014,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/cookie/ns2/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/cookie/ns2/root.db ZONE 2014,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/cookie/ns3/named.conf.in CONF-C 2018,2019,2020,2021,2022
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./bin/tests/system/cookie/ns4/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/cookie/ns4/root.hint ZONE 2018,2019,2020,2021,2022
./bin/tests/system/cookie/ns5/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/cookie/ns5/root.hint ZONE 2018,2019,2020,2021,2022
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./bin/tests/system/cookie/ns6/root.hint ZONE 2018,2019,2020,2021,2022
./bin/tests/system/cookie/ns7/named.conf.in CONF-C 2018,2019,2020,2021,2022

./bin/tests/system/cookie/ns7/root.db ZONE 2018,2019,2020,2021,2022
./bin/tests/system/cookie/ns8/example.db ZONE 2018,2019,2020,2021,2022
./bin/tests/system/cookie/ns8/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/cookie/prereq.sh SH 2020,2021,2022
./bin/tests/system/cookie/setup.sh SH 2018,2019,2020,2021,2022
./bin/tests/system/cookie/tests.sh SH 2014,2015,2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/coverage/01-ksk-inactive/README X 2013,2018,2019,2020,2021,2022
./bin/tests/system/coverage/01-ksk-inactive/expect X 2013,2018,2019,2020,2021,2022
./bin/tests/system/coverage/02-zsk-inactive/README X 2013,2018,2019,2020,2021,2022
./bin/tests/system/coverage/02-zsk-inactive/expect X 2013,2018,2019,2020,2021,2022
./bin/tests/system/coverage/03-ksk-unpublished/README X 2013,2018,2019,2020,2021,2022
./bin/tests/system/coverage/03-ksk-unpublished/expect X 2013,2016,2018,2019,2020,2021,2022
./bin/tests/system/coverage/04-zsk-unpublished/README X 2013,2018,2019,2020,2021,2022
./bin/tests/system/coverage/04-zsk-unpublished/expect X 2013,2016,2018,2019,2020,2021,2022
./bin/tests/system/coverage/05-ksk-unpub-active/README X 2013,2018,2019,2020,2021,2022
./bin/tests/system/coverage/05-ksk-unpub-active/expect X 2013,2016,2018,2019,2020,2021,2022
./bin/tests/system/coverage/06-zsk-unpub-active/README X 2013,2018,2019,2020,2021,2022
./bin/tests/system/coverage/06-zsk-unpub-active/expect X 2013,2016,2018,2019,2020,2021,2022
./bin/tests/system/coverage/07-ksk-ttl/README X 2013,2018,2019,2020,2021,2022
./bin/tests/system/coverage/07-ksk-ttl/expect X 2013,2016,2018,2019,2020,2021,2022
./bin/tests/system/coverage/08-zsk-ttl/README X 2013,2018,2019,2020,2021,2022
./bin/tests/system/coverage/08-zsk-ttl/expect X 2013,2016,2018,2019,2020,2021,2022
./bin/tests/system/coverage/09-check-zsk/README X 2014,2018,2019,2020,2021,2022
./bin/tests/system/coverage/09-check-zsk/expect X 2014,2018,2019,2020,2021,2022
./bin/tests/system/coverage/10-check-ksk/README X 2014,2018,2019,2020,2021,2022
./bin/tests/system/coverage/10-check-ksk/expect X 2014,2018,2019,2020,2021,2022
./bin/tests/system/coverage/11-cutoff/README X 2014,2018,2019,2020,2021,2022
./bin/tests/system/coverage/11-cutoff/expect X 2014,2018,2019,2020,2021,2022
./bin/tests/system/coverage/12-ksk-deletion/expect X 2018,2019,2020,2021,2022
./bin/tests/system/coverage/13-dotted-dotless/expect X 2019,2020,2021,2022
./bin/tests/system/coverage/clean.sh SH 2013,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/coverage/prereq.sh SH 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/coverage/setup.sh SH 2013,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/coverage/tests.sh SH 2013,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/database/clean.sh SH 2011,2012,2014,2016,2018,2019,2020,2021,2022
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./bin/tests/system/database/ns1/named2.conf.in CONF-C 2011,2013,2018,2019,2020,2021,2022
./bin/tests/system/database/setup.sh SH 2011,2012,2016,2018,2019,2020,2021,2022
./bin/tests/system/database/tests.sh SH 2011,2012,2016,2018,2019,2020,2021,2022
./bin/tests/system/delzone/clean.sh SH 2016,2018,2019,2020,2021,2022
./bin/tests/system/delzone/ns1/inlineslave.db ZONE 2016,2018,2019,2020,2021,2022
./bin/tests/system/delzone/ns1/named.conf CONF-C 2016,2018,2019,2020,2021,2022
./bin/tests/system/delzone/ns2/added.db ZONE 2016,2018,2019,2020,2021,2022
./bin/tests/system/delzone/ns2/named.args X 2016,2018,2019,2020,2021,2022
./bin/tests/system/delzone/ns2/named.conf CONF-C 2016,2018,2019,2020,2021,2022
./bin/tests/system/delzone/ns2/normal.db ZONE 2016,2018,2019,2020,2021,2022
./bin/tests/system/delzone/tests.sh SH 2016,2018,2019,2020,2021,2022
./bin/tests/system/dialup/clean.sh SH 2019,2020,2021,2022

./bin/tests/system/dialup/ns1/example.db ZONE 2000,2001,2004,2007,2016,2018,2019,2020,2021,2022
./bin/tests/system/dialup/ns1/named.conf CONF-C 2000,2001,2004,2007,2016,2018,2019,2020,2021,2022
./bin/tests/system/dialup/ns1/root.db ZONE 2000,2001,2004,2007,2016,2018,2019,2020,2021,2022
./bin/tests/system/dialup/ns2/hint.db ZONE 2000,2001,2004,2007,2016,2018,2019,2020,2021,2022
./bin/tests/system/dialup/ns2/named.conf CONF-C 2000,2001,2004,2007,2016,2018,2019,2020,2021,2022
./bin/tests/system/dialup/ns3/hint.db ZONE 2000,2001,2004,2007,2016,2018,2019,2020,2021,2022
./bin/tests/system/dialup/ns3/named.conf CONF-C 2000,2001,2004,2007,2016,2018,2019,2020,2021,2022
./bin/tests/system/dialup/tests.sh SH 2000,2001,2004,2007,2012,2016,2018,2019,2020,2021,2022
./bin/tests/system/digcomp.pl PERL 2000,2001,2004,2007,2012,2013,2016,2018,2019,2020,2021,2022
./bin/tests/system/digdelv/ans4/startme X 2017,2018,2019,2020,2021,2022
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./bin/tests/system/digdelv/clean.sh SH 2015,2016,2018,2019,2020,2021,2022
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./bin/tests/system/digdelv/setup.sh SH 2018,2019,2020,2021,2022
./bin/tests/system/digdelv/tests.sh SH 2015,2016,2017,2018,2019,2020,2021,2022
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./bin/tests/system/dlv/clean.sh SH 2004,2007,2010,2011,2012,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/dlv/ns1/named.conf.in CONF-C 2018,2019,2020,2021,2022
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./bin/tests/system/dlv/ns1/rootservers.utld.db ZONE 2004,2007,2016,2018,2019,2020,2021,2022
./bin/tests/system/dlv/ns1/sign.sh SH 2011,2012,2014,2016,2018,2019,2020,2021,2022
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./bin/tests/system/dlv/ns2/hints ZONE 2004,2007,2016,2018,2019,2020,2021,2022
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./bin/tests/system/dlv/ns4/hints ZONE 2004,2007,2016,2018,2019,2020,2021,2022
./bin/tests/system/dlv/ns4/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/dlv/ns5/hints ZONE 2004,2007,2016,2018,2019,2020,2021,2022
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./bin/tests/system/dlv/ns5/rndc.conf CONF-C 2004,2007,2013,2016,2018,2019,2020,2021,2022
./bin/tests/system/dlv/ns6/child.db.in ZONE 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/dlv/ns6/hints ZONE 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/dlv/ns6/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/dlv/ns6/sign.sh SH 2010,2011,2012,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/dlv/ns7/hints ZONE 2019,2020,2021,2022
./bin/tests/system/dlv/ns7/named.conf.in CONF-C 2019,2020,2021,2022

./bin/tests/system/dlv/prereq.sh SH 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/dlv/setup.sh SH 2004,2007,2009,2011,2012,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/dlv/tests.sh SH 2004,2007,2010,2011,2012,2016,2018,2019,2020,2021,2022
./bin/tests/system/dlz/clean.sh SH 2010,2012,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/dlz/ns1/dns-root/com/broken/dns.d/@/DNAME=10=example.net.= TXT.BRIEF 2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/dlz/ns1/dns-root/com/broken/dns.d/@/NS=10=example.com.= TXT.BRIEF 2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/dlz/ns1/dns-root/com/broken/dns.d/@/SOA=10=ns.example.com.=root.example.com.=None=None=None=None=None= TXT.BRIEF 2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/dlz/ns1/dns-root/com/example/dns.d/@/DNAME=10=example.net.= TXT.BRIEF 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/dlz/ns1/dns-root/com/example/dns.d/@/NS=10=example.com.= TXT.BRIEF 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/dlz/ns1/dns-root/com/example/dns.d/@/SOA=10=ns.example.com.=root.example.com.=2010062900=0=0=0=10= TXT.BRIEF 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/dlz/ns1/dns-root/com/example/xfr.d/10.53.0.1 TXT.BRIEF 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/dlz/ns1/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/dlz/prereq.sh SH 2011,2012,2016,2018,2019,2020,2021,2022
./bin/tests/system/dlz/setup.sh SH 2018,2019,2020,2021,2022
./bin/tests/system/dlz/tests.sh SH 2010,2011,2012,2013,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/dlzexternal/Makefile.in MAKE 2011,2012,2014,2015,2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/dlzexternal/clean.sh SH 2010,2012,2014,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/dlzexternal/driver.c C 2011,2012,2013,2014,2015,2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/dlzexternal/driver.h C 2011,2016,2018,2019,2020,2021,2022
./bin/tests/system/dlzexternal/ns1/dlzs.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/dlzexternal/ns1/named.conf.in CONF-C 2011,2012,2013,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/dlzexternal/ns1/root.db ZONE 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/dlzexternal/prereq.sh SH 2010,2011,2012,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/dlzexternal/setup.sh SH 2010,2012,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/dlzexternal/tests.sh SH 2010,2011,2012,2013,2014,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/dns64/clean.sh SH 2010,2012,2014,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/dns64/conf/bad1.conf CONF-C 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/dns64/conf/bad18.conf CONF-C 2019,2020,2021,2022
./bin/tests/system/dns64/conf/bad19.conf CONF-C 2019,2020,2021,2022
./bin/tests/system/dns64/conf/bad2.conf CONF-C 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/dns64/conf/bad3.conf CONF-C 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/dns64/conf/bad4.conf CONF-C 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/dns64/conf/bad5.conf CONF-C 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/dns64/conf/bad6.conf CONF-C 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/dns64/conf/bad7.conf CONF-C 2012,2016,2018,2019,2020,2021,2022
./bin/tests/system/dns64/conf/bad8.conf CONF-C 2012,2016,2018,2019,2020,2021,2022
./bin/tests/system/dns64/conf/bad9.conf CONF-C 2012,2016,2018,2019,2020,2021,2022
./bin/tests/system/dns64/conf/good1.conf CONF-C 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/dns64/conf/good2.conf CONF-C 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/dns64/conf/good3.conf CONF-C 2010,2016,2018,2019,2020,2021,2022

./bin/tests/system/dns64/conf/good4.conf CONF-C 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/dns64/conf/good5.conf CONF-C 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/dns64/conf/warn1.conf CONF-C 2019,2020,2021,2022
./bin/tests/system/dns64/conf/warn2.conf CONF-C 2019,2020,2021,2022
./bin/tests/system/dns64/conf/warn3.conf CONF-C 2019,2020,2021,2022
./bin/tests/system/dns64/conf/warn4.conf CONF-C 2019,2020,2021,2022
./bin/tests/system/dns64/conf/warn5.conf CONF-C 2019,2020,2021,2022
./bin/tests/system/dns64/conf/warn6.conf CONF-C 2019,2020,2021,2022
./bin/tests/system/dns64/conf/warn7.conf CONF-C 2019,2020,2021,2022
./bin/tests/system/dns64/conf/warn8.conf CONF-C 2019,2020,2021,2022
./bin/tests/system/dns64/ns1/example.db ZONE 2010,2011,2013,2016,2018,2019,2020,2021,2022
./bin/tests/system/dns64/ns1/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/dns64/ns1/root.db ZONE 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/dns64/ns1/sign.sh SH 2010,2012,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/dns64/ns2/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/dns64/ns2/rpz.db ZONE 2013,2016,2018,2019,2020,2021,2022
./bin/tests/system/dns64/prereq.sh SH 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/dns64/setup.sh SH 2010,2012,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/dns64/tests.sh SH 2010,2011,2012,2013,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/README TXT.BRIEF 2000,2001,2002,2004,2011,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ans10/ans.py PYTHON 2020,2021,2022
./bin/tests/system/dnssec/clean.sh SH
2000,2001,2002,2004,2007,2008,2009,2010,2011,2012,2013,2014,2015,2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/dnssec_update_test.pl PERL 2002,2004,2007,2010,2012,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns1/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns1/root.db.in ZONE
2000,2001,2004,2007,2010,2013,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns1/sign.sh SH
2000,2001,2002,2003,2004,2006,2007,2008,2009,2010,2011,2012,2013,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns2/algroll.db.in ZONE 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns2/badparam.db.in ZONE 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns2/cdnskey-auto.secure.db.in ZONE 2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns2/cdnskey-update.secure.db.in ZONE 2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns2/cdnskey.secure.db.in ZONE 2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns2/cds-auto.secure.db.in ZONE 2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns2/cds-update.secure.db.in ZONE 2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns2/cds.secure.db.in ZONE 2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns2/child.nsec3.example.db ZONE 2006,2008,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns2/child.optout.example.db ZONE 2006,2008,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns2/dlv.db.in ZONE 2004,2007,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns2/dst.example.db.in ZONE 2004,2007,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns2/example.db.in ZONE
2000,2001,2002,2004,2007,2008,2009,2010,2011,2012,2013,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns2/in-addr.arpa.db.in ZONE 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns2/insecure.secure.example.db ZONE
2000,2001,2004,2007,2013,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns2/key.db.in ZONE 2019,2020,2021,2022
./bin/tests/system/dnssec/ns2/named.conf.in CONF-C 2018,2019,2020,2021,2022

./bin/tests/system/dnssec/ns2/private.secure.example.db.in ZONE
2000,2001,2004,2007,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns2/rfc2335.example.db X 2004,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns2/sign.sh SH
2000,2001,2002,2003,2004,2006,2007,2008,2009,2010,2011,2012,2014,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns2/single-nsec3.db.in ZONE 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns2/template.secure.db.in ZONE 2019,2020,2021,2022
./bin/tests/system/dnssec/ns2/too-many-iterations.db.in ZONE 2021,2022
./bin/tests/system/dnssec/ns3/auto-nsec.example.db.in ZONE 2011,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns3/auto-nsec3.example.db.in ZONE 2011,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns3/bogus.example.db.in ZONE
2000,2001,2004,2007,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns3/dname-at-apex-nsec3.example.db.in ZONE 2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns3/dnskey-nsec3-unknown.example.db.in ZONE 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns3/dnskey-unknown.example.db.in ZONE 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns3/dnskey-unsupported-2.example.db.in ZONE 2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns3/dnskey-unsupported.example.db.in ZONE 2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns3/dynamic.example.db.in ZONE 2002,2004,2007,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns3/expired.example.db.in ZONE 2011,2012,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns3/expiring.example.db.in ZONE 2011,2012,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns3/future.example.db.in ZONE 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns3/generic.example.db.in ZONE 2001,2002,2004,2007,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns3/inline.example.db ZONE 2012,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns3/insecure.below-cname.example.db ZONE 2011,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns3/insecure.example.db ZONE 2000,2001,2004,2007,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns3/insecure.nsec3.example.db ZONE 2008,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns3/insecure.optout.example.db ZONE 2008,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns3/key.db.in ZONE 2019,2020,2021,2022
./bin/tests/system/dnssec/ns3/kskonly.example.db.in ZONE 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns3/lower.example.db.in ZONE 2012,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns3/managed-future.example.db.in ZONE 2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns3/multiple.example.db.in ZONE 2006,2008,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns3/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns3/nosign.example.db.in ZONE 2011,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns3/nsec3-unknown.example.db.in ZONE 2006,2008,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns3/nsec3.example.db.in ZONE 2006,2008,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns3/nsec3.nsec3.example.db.in ZONE 2008,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns3/nsec3.optout.example.db.in ZONE 2008,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns3/occluded.example.db.in ZONE 2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns3/optout-unknown.example.db.in ZONE 2006,2008,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns3/optout.example.db.in ZONE 2006,2008,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns3/optout.nsec3.example.db.in ZONE 2008,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns3/optout.optout.example.db.in ZONE 2008,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns3/publish-inactive.example.db.in ZONE 2013,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns3/rsasha256.example.db.in ZONE 2009,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns3/rsasha512.example.db.in ZONE 2009,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns3/secure.below-cname.example.db.in ZONE 2011,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns3/secure.example.db.in ZONE

2000,2001,2004,2007,2008,2010,2012,2013,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns3/secure.nsec3.example.db.in ZONE 2008,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns3/secure.optout.example.db.in ZONE 2008,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns3/siginterval.example.db.in ZONE 2013,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns3/siginterval1.conf CONF-C 2013,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns3/siginterval2.conf CONF-C 2013,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns3/sign.sh SH
2000,2001,2002,2004,2006,2007,2008,2009,2010,2011,2012,2013,2014,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns3/split-dnssec.example.db.in ZONE 2011,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns3/split-smart.example.db.in ZONE 2011,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns3/ttlpatch.example.db.in ZONE 2011,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns3/unsupported-algorithm.key X 2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns3/update-nsec3.example.db.in ZONE 2011,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns3/upper.example.db.in ZONE 2012,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns4/named1.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns4/named2.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns4/named3.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns4/named4.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns4/named5.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns5/named1.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns5/named2.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns5/sign.sh SH 2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns5/trusted.conf.bad CONF-C 2000,2001,2004,2007,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns6/named.args X 2013,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns6/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns6/optout-tld.db.in ZONE 2013,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns6/sign.sh SH 2013,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns7/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns7/named.nosoa TXT.BRIEF 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns7/nosoa.secure.example.db ZONE 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns7/sign.sh SH 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns7/split-rrsig.db.in ZONE 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/ns8/named.conf.in CONF-C 2019,2020,2021,2022
./bin/tests/system/dnssec/ns9/named.conf.in CONF-C 2019,2020,2021,2022
./bin/tests/system/dnssec/ntadiff.pl PERL 2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/prereq.sh SH
2000,2001,2002,2004,2006,2007,2009,2012,2014,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/setup.sh SH
2000,2001,2004,2007,2009,2011,2012,2013,2014,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/signer/example.db.in ZONE 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/signer/general/Kexample.com.+005+07065.key X 2018,2019,2020,2021,2022
./bin/tests/system/dnssec/signer/general/Kexample.com.+005+07065.private X 2018,2019,2020,2021,2022
./bin/tests/system/dnssec/signer/general/Kexample.com.+005+23362.key X 2018,2019,2020,2021,2022
./bin/tests/system/dnssec/signer/general/Kexample.com.+005+23362.private X 2018,2019,2020,2021,2022
./bin/tests/system/dnssec/signer/general/Kexample.com.+008+15002.key X 2021,2022
./bin/tests/system/dnssec/signer/general/Kexample.com.+008+15002.private X 2021,2022
./bin/tests/system/dnssec/signer/general/Kexample.com.+008+63613.key X 2021,2022
./bin/tests/system/dnssec/signer/general/Kexample.com.+008+63613.private X 2021,2022

./bin/tests/system/dnssec/signer/general/bogus-ksk.key X 2018,2019,2020,2021,2022
./bin/tests/system/dnssec/signer/general/bogus-zsk.key X 2018,2019,2020,2021,2022
./bin/tests/system/dnssec/signer/general/test1.zone ZONE 2018,2019,2020,2021,2022
./bin/tests/system/dnssec/signer/general/test2.zone ZONE 2018,2019,2020,2021,2022
./bin/tests/system/dnssec/signer/general/test3.zone ZONE 2018,2019,2020,2021,2022
./bin/tests/system/dnssec/signer/general/test4.zone ZONE 2018,2019,2020,2021,2022
./bin/tests/system/dnssec/signer/general/test5.zone ZONE 2018,2019,2020,2021,2022
./bin/tests/system/dnssec/signer/general/test6.zone ZONE 2018,2019,2020,2021,2022
./bin/tests/system/dnssec/signer/general/test7.zone ZONE 2018,2019,2020,2021,2022
./bin/tests/system/dnssec/signer/general/test8.zone ZONE 2018,2019,2020,2021,2022
./bin/tests/system/dnssec/signer/general/test9.zone ZONE 2021,2022
./bin/tests/system/dnssec/signer/remove.db.in ZONE 2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/signer/remove2.db.in ZONE 2016,2018,2019,2020,2021,2022
./bin/tests/system/dnssec/tests.sh SH
2000,2001,2002,2004,2005,2006,2007,2008,2009,2010,2011,2012,2013,2014,2015,2016,2017,2018,2019,2020,202
1,2022
./bin/tests/system/dnstap/README TXT.BRIEF 2019,2020,2021,2022
./bin/tests/system/dnstap/bad-fstrm-set-buffer-hint-max.conf CONF-C 2016,2018,2019,2020,2021,2022
./bin/tests/system/dnstap/bad-fstrm-set-buffer-hint-min.conf CONF-C 2016,2018,2019,2020,2021,2022
./bin/tests/system/dnstap/bad-fstrm-set-flush-timeout-max.conf CONF-C 2016,2018,2019,2020,2021,2022
./bin/tests/system/dnstap/bad-fstrm-set-flush-timeout-min.conf CONF-C 2016,2018,2019,2020,2021,2022
./bin/tests/system/dnstap/bad-fstrm-set-input-queue-size-max.conf CONF-C 2016,2018,2019,2020,2021,2022
./bin/tests/system/dnstap/bad-fstrm-set-input-queue-size-min.conf CONF-C 2016,2018,2019,2020,2021,2022
./bin/tests/system/dnstap/bad-fstrm-set-input-queue-size-po2.conf CONF-C 2016,2018,2019,2020,2021,2022
./bin/tests/system/dnstap/bad-fstrm-set-output-notify-threshold.conf CONF-C 2016,2018,2019,2020,2021,2022
./bin/tests/system/dnstap/bad-fstrm-set-output-queue-size-max.conf CONF-C 2016,2018,2019,2020,2021,2022
./bin/tests/system/dnstap/bad-fstrm-set-output-queue-size-min.conf CONF-C 2016,2018,2019,2020,2021,2022
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./bin/tests/system/dnstap/large-answer.fstrm X 2019,2020,2021,2022
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./bin/tests/system/dnstap/ns1/root.db ZONE 2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/dnstap/ns2/example.db ZONE 2015,2016,2018,2019,2020,2021,2022
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./bin/tests/system/dscp/clean.sh SH 2013,2014,2015,2016,2018,2019,2020,2021,2022
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./bin/tests/system/dscp/ns1/root.db ZONE 2013,2016,2018,2019,2020,2021,2022
./bin/tests/system/dscp/ns2/named.args X 2013,2014,2018,2019,2020,2021,2022
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./bin/tests/system/dscp/ns3/hint.db ZONE 2013,2016,2018,2019,2020,2021,2022
./bin/tests/system/dscp/ns3/named.args X 2013,2014,2018,2019,2020,2021,2022
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./bin/tests/system/dscp/ns4/root.db ZONE 2013,2016,2018,2019,2020,2021,2022
./bin/tests/system/dscp/ns5/named.args X 2013,2014,2018,2019,2020,2021,2022
./bin/tests/system/dscp/ns5/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/dscp/ns6/hint.db ZONE 2013,2016,2018,2019,2020,2021,2022
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./bin/tests/system/dscp/ns6/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/dscp/ns7/named.args X 2013,2014,2018,2019,2020,2021,2022
./bin/tests/system/dscp/ns7/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/dscp/setup.sh SH 2018,2019,2020,2021,2022
./bin/tests/system/dscp/tests.sh SH 2013,2016,2018,2019,2020,2021,2022
./bin/tests/system/dsdigest/clean.sh SH 2012,2014,2016,2018,2019,2020,2021,2022
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./bin/tests/system/dsdigest/ns2/good.db.in ZONE 2012,2016,2018,2019,2020,2021,2022
./bin/tests/system/dsdigest/ns2/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/dsdigest/ns2/sign.sh SH 2012,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/dsdigest/ns3/named.conf.in CONF-C 2018,2019,2020,2021,2022
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./bin/tests/system/dyndb/driver/COPYING X 2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/dyndb/driver/Makefile.in MAKE 2015,2016,2018,2019,2020,2021,2022
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./bin/tests/system/dyndb/driver/db.c X 2015,2016,2017,2018,2019,2020,2021,2022
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./bin/tests/system/dyndb/driver/driver.c X 2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/dyndb/driver/instance.c X 2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/dyndb/driver/instance.h X 2015,2016,2018,2019,2020,2021,2022
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./bin/tests/system/dyndb/driver/syncptr.c X 2015,2017,2018,2019,2020,2021,2022
./bin/tests/system/dyndb/driver/syncptr.h X 2015,2018,2019,2020,2021,2022
./bin/tests/system/dyndb/driver/util.h X 2015,2018,2019,2020,2021,2022
./bin/tests/system/dyndb/driver/zone.c X 2015,2018,2019,2020,2021,2022
./bin/tests/system/dyndb/driver/zone.h X 2015,2018,2019,2020,2021,2022
./bin/tests/system/dyndb/ns1/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/dyndb/prereq.sh SH 2015,2016,2018,2019,2020,2021,2022
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./bin/tests/system/dyndb/tests.sh SH 2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/ecdsa/clean.sh SH 2012,2014,2016,2018,2019,2020,2021,2022
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./bin/tests/system/ecdsa/ns1/root.db.in ZONE 2012,2016,2018,2019,2020,2021,2022
./bin/tests/system/ecdsa/ns1/sign.sh SH 2012,2014,2016,2018,2019,2020,2021,2022
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./bin/tests/system/ecdsa/prereq.sh SH 2012,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/ecdsa/setup.sh SH 2012,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/ecdsa/tests.sh SH 2012,2013,2015,2016,2018,2019,2020,2021,2022
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./bin/tests/system/eddsa/ns1/named.conf CONF-C 2017,2018,2019,2020,2021,2022
./bin/tests/system/eddsa/ns1/root.db.in ZONE 2017,2018,2019,2020,2021,2022
./bin/tests/system/eddsa/ns1/sign.sh SH 2017,2018,2019,2020,2021,2022
./bin/tests/system/eddsa/ns2/Xexample.com.+015+03613.key X 2017,2018,2019,2020,2021,2022
./bin/tests/system/eddsa/ns2/Xexample.com.+015+03613.private X 2017,2018,2019,2020,2021,2022
./bin/tests/system/eddsa/ns2/Xexample.com.+015+35217.key X 2017,2018,2019,2020,2021,2022
./bin/tests/system/eddsa/ns2/Xexample.com.+015+35217.private X 2017,2018,2019,2020,2021,2022
./bin/tests/system/eddsa/ns2/Xexample.com.+016+09713.key X 2019,2020,2021,2022
./bin/tests/system/eddsa/ns2/Xexample.com.+016+09713.private X 2019,2020,2021,2022
./bin/tests/system/eddsa/ns2/Xexample.com.+016+38353.key X 2019,2020,2021,2022
./bin/tests/system/eddsa/ns2/Xexample.com.+016+38353.private X 2019,2020,2021,2022
./bin/tests/system/eddsa/ns2/example.com.db ZONE 2017,2018,2019,2020,2021,2022
./bin/tests/system/eddsa/ns2/named.conf CONF-C 2017,2018,2019,2020,2021,2022
./bin/tests/system/eddsa/ns2/sign.sh SH 2017,2018,2019,2020,2021,2022
./bin/tests/system/eddsa/prereq.sh SH 2017,2018,2019,2020,2021,2022
./bin/tests/system/eddsa/setup.sh SH 2017,2018,2019,2020,2021,2022

./bin/tests/system/eddsa/tests.sh SH 2017,2018,2019,2020,2021,2022
./bin/tests/system/ednscompliance/clean.sh SH 2014,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/ednscompliance/ns1/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/ednscompliance/ns1/root.db ZONE 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/ednscompliance/setup.sh SH 2018,2019,2020,2021,2022
./bin/tests/system/ednscompliance/tests.sh SH 2014,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/emptyzones/clean.sh SH 2014,2015,2016,2018,2019,2020,2021,2022
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./bin/tests/system/emptyzones/setup.sh SH 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/emptyzones/tests.sh SH 2014,2015,2016,2018,2019,2020,2021,2022
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./bin/tests/system/fetchlimit/ans4/ans.pl PERL 2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/fetchlimit/clean.sh SH 2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/fetchlimit/ns1/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/fetchlimit/ns1/root.db ZONE 2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/fetchlimit/ns2/example.db ZONE 2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/fetchlimit/ns2/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/fetchlimit/ns3/named.args X 2015,2018,2019,2020,2021,2022
./bin/tests/system/fetchlimit/ns3/named1.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/fetchlimit/ns3/named2.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/fetchlimit/ns3/named3.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/fetchlimit/ns3/root.hint ZONE 2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/fetchlimit/prereq.sh SH 2018,2019,2020,2021,2022
./bin/tests/system/fetchlimit/setup.sh SH 2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/fetchlimit/tests.sh SH 2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/filter-aaaa/clean.sh SH 2010,2012,2014,2016,2018,2019,2020,2021,2022
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./bin/tests/system/filter-aaaa/conf/bad2.conf CONF-C 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/filter-aaaa/conf/bad3.conf CONF-C 2010,2016,2018,2019,2020,2021,2022
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./bin/tests/system/filter-aaaa/conf/bad6.conf CONF-C 2010,2016,2018,2019,2020,2021,2022
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./bin/tests/system/filter-aaaa/conf/good2.conf CONF-C 2010,2016,2018,2019,2020,2021,2022
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./bin/tests/system/filter-aaaa/conf/good4.conf CONF-C 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/filter-aaaa/conf/good5.conf CONF-C 2010,2016,2018,2019,2020,2021,2022
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./bin/tests/system/filter-aaaa/ns1/root.db ZONE 2010,2012,2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/filter-aaaa/ns1/sign.sh SH 2010,2012,2014,2016,2018,2019,2020,2021,2022

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./bin/tests/system/filter-aaaa/ns1/signed.db.presigned X 2014,2017,2018,2019,2020,2021,2022
./bin/tests/system/filter-aaaa/ns1/unsigned.db ZONE 2010,2012,2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/filter-aaaa/ns2/hints ZONE 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/filter-aaaa/ns2/named1.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/filter-aaaa/ns2/named2.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/filter-aaaa/ns3/hints ZONE 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/filter-aaaa/ns3/named1.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/filter-aaaa/ns3/named2.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/filter-aaaa/ns4/named1.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/filter-aaaa/ns4/named2.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/filter-aaaa/ns4/root.db ZONE 2010,2012,2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/filter-aaaa/ns4/sign.sh SH 2010,2012,2014,2016,2018,2019,2020,2021,2022
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./bin/tests/system/filter-aaaa/ns5/hints ZONE 2018,2019,2020,2021,2022
./bin/tests/system/filter-aaaa/ns5/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/filter-aaaa/prereq.sh SH 2010,2012,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/filter-aaaa/setup.sh SH 2010,2012,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/filter-aaaa/tests.sh SH 2010,2012,2015,2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/formerr/clean.sh SH 2013,2014,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/formerr/formerr.pl PERL 2013,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/formerr/nametoolong X 2013,2018,2019,2020,2021,2022
./bin/tests/system/formerr/noquestions X 2013,2018,2019,2020,2021,2022
./bin/tests/system/formerr/ns1/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/formerr/ns1/root.db ZONE 2013,2016,2018,2019,2020,2021,2022
./bin/tests/system/formerr/setup.sh SH 2018,2019,2020,2021,2022
./bin/tests/system/formerr/tests.sh SH 2013,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/formerr/twoquestions X 2013,2018,2019,2020,2021,2022
./bin/tests/system/forward/ans6/startme X 2019,2020,2021,2022
./bin/tests/system/forward/clean.sh SH 2000,2001,2004,2007,2012,2014,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/forward/ns1/example.db X 2000,2001,2018,2019,2020,2021,2022
./bin/tests/system/forward/ns1/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/forward/ns1/root.db ZONE 2000,2001,2004,2007,2016,2018,2019,2020,2021,2022
./bin/tests/system/forward/ns2/example.db X 2000,2001,2018,2019,2020,2021,2022
./bin/tests/system/forward/ns2/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/forward/ns2/root.db ZONE 2000,2001,2004,2007,2016,2018,2019,2020,2021,2022
./bin/tests/system/forward/ns3/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/forward/ns3/root.db ZONE 2000,2001,2004,2007,2016,2018,2019,2020,2021,2022
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./bin/tests/system/forward/ns4/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/forward/ns4/root.db ZONE 2000,2001,2004,2007,2016,2018,2019,2020,2021,2022
./bin/tests/system/forward/ns5/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/forward/ns5/rebind.db ZONE 2020,2021,2022
./bin/tests/system/forward/ns5/root.db ZONE 2011,2016,2018,2019,2020,2021,2022
./bin/tests/system/forward/ns7/named.conf.in CONF-C 2019,2020,2021,2022
./bin/tests/system/forward/ns7/root.db ZONE 2019,2020,2021,2022

./bin/tests/system/forward/prereq.sh SH 2019,2020,2021,2022
./bin/tests/system/forward/rfc1918-inherited.conf CONF-C 2016,2018,2019,2020,2021,2022
./bin/tests/system/forward/rfc1918-notinherited.conf CONF-C 2016,2018,2019,2020,2021,2022
./bin/tests/system/forward/setup.sh SH 2018,2019,2020,2021,2022
./bin/tests/system/forward/tests.sh SH 2000,2001,2004,2007,2011,2012,2013,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/forward/ula-inherited.conf CONF-C 2016,2018,2019,2020,2021,2022
./bin/tests/system/forward/ula-notinherited.conf CONF-C 2016,2018,2019,2020,2021,2022
./bin/tests/system/genzone.sh SH
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./bin/tests/system/geoip/clean.sh SH 2013,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/geoip/data/GeoIP.csv X 2013,2014,2018,2019,2020,2021,2022
./bin/tests/system/geoip/data/GeoIP.dat X 2013,2014,2018,2019,2020,2021,2022
./bin/tests/system/geoip/data/GeoIPASNum.csv X 2013,2018,2019,2020,2021,2022
./bin/tests/system/geoip/data/GeoIPASNum.dat X 2013,2018,2019,2020,2021,2022
./bin/tests/system/geoip/data/GeoIPASNumv6.csv X 2013,2018,2019,2020,2021,2022
./bin/tests/system/geoip/data/GeoIPASNumv6.dat X 2013,2018,2019,2020,2021,2022
./bin/tests/system/geoip/data/GeoIPCity.csv X 2013,2018,2019,2020,2021,2022
./bin/tests/system/geoip/data/GeoIPCity.dat X 2013,2018,2019,2020,2021,2022
./bin/tests/system/geoip/data/GeoIPCityv6.csv X 2013,2018,2019,2020,2021,2022
./bin/tests/system/geoip/data/GeoIPCityv6.dat X 2013,2018,2019,2020,2021,2022
./bin/tests/system/geoip/data/GeoIPDomain.csv X 2013,2018,2019,2020,2021,2022
./bin/tests/system/geoip/data/GeoIPDomain.dat X 2013,2018,2019,2020,2021,2022
./bin/tests/system/geoip/data/GeoIPISP.csv X 2013,2018,2019,2020,2021,2022
./bin/tests/system/geoip/data/GeoIPISP.dat X 2013,2018,2019,2020,2021,2022
./bin/tests/system/geoip/data/GeoIPNetSpeed.csv X 2013,2018,2019,2020,2021,2022
./bin/tests/system/geoip/data/GeoIPNetSpeed.dat X 2013,2018,2019,2020,2021,2022
./bin/tests/system/geoip/data/GeoIPOrg.csv X 2013,2018,2019,2020,2021,2022
./bin/tests/system/geoip/data/GeoIPOrg.dat X 2013,2018,2019,2020,2021,2022
./bin/tests/system/geoip/data/GeoIPRegion.csv X 2013,2018,2019,2020,2021,2022
./bin/tests/system/geoip/data/GeoIPRegion.dat X 2013,2018,2019,2020,2021,2022
./bin/tests/system/geoip/data/GeoIPv6.csv X 2013,2018,2019,2020,2021,2022
./bin/tests/system/geoip/data/GeoIPv6.dat X 2013,2018,2019,2020,2021,2022
./bin/tests/system/geoip/data/README TXT.BRIEF 2013,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/geoip/ns2/example.db.in ZONE 2013,2016,2018,2019,2020,2021,2022
./bin/tests/system/geoip/ns2/named1.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/geoip/ns2/named10.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/geoip/ns2/named11.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/geoip/ns2/named12.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/geoip/ns2/named13.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/geoip/ns2/named14.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/geoip/ns2/named15.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/geoip/ns2/named16.conf.in CONF-C 2019,2020,2021,2022
./bin/tests/system/geoip/ns2/named2.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/geoip/ns2/named3.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/geoip/ns2/named4.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/geoip/ns2/named5.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/geoip/ns2/named6.conf.in CONF-C 2018,2019,2020,2021,2022
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./bin/tests/system/geoip/ns2/named8.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/geoip/ns2/named9.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/geoip/options.conf CONF-C 2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/geoip/prereq.sh SH 2013,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/geoip/setup.sh SH 2013,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/geoip/tests.sh SH 2013,2014,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/geoip2/clean.sh SH 2019,2020,2021,2022
./bin/tests/system/geoip2/conf/bad-areacode.conf CONF-C 2019,2020,2021,2022
./bin/tests/system/geoip2/conf/bad-dbname.conf CONF-C 2019,2020,2021,2022
./bin/tests/system/geoip2/conf/bad-netspeed.conf CONF-C 2019,2020,2021,2022
./bin/tests/system/geoip2/conf/bad-regiondb.conf CONF-C 2019,2020,2021,2022
./bin/tests/system/geoip2/conf/bad-threeletter.conf CONF-C 2019,2020,2021,2022
./bin/tests/system/geoip2/conf/good-options.conf CONF-C 2019,2020,2021,2022
./bin/tests/system/geoip2/data/GeoIP2-City.json X 2019,2020,2021,2022
./bin/tests/system/geoip2/data/GeoIP2-City.mmdb X 2019,2020,2021,2022
./bin/tests/system/geoip2/data/GeoIP2-Country.json X 2019,2020,2021,2022
./bin/tests/system/geoip2/data/GeoIP2-Country.mmdb X 2019,2020,2021,2022
./bin/tests/system/geoip2/data/GeoIP2-Domain.json X 2019,2020,2021,2022
./bin/tests/system/geoip2/data/GeoIP2-Domain.mmdb X 2019,2020,2021,2022
./bin/tests/system/geoip2/data/GeoIP2-ISP.json X 2019,2020,2021,2022
./bin/tests/system/geoip2/data/GeoIP2-ISP.mmdb X 2019,2020,2021,2022
./bin/tests/system/geoip2/data/GeoLite2-ASN.json X 2019,2020,2021,2022
./bin/tests/system/geoip2/data/GeoLite2-ASN.mmdb X 2019,2020,2021,2022
./bin/tests/system/geoip2/data/README.md MKD 2019,2020,2021,2022
./bin/tests/system/geoip2/data/write-test-data.pl PERL 2019,2020,2021,2022
./bin/tests/system/geoip2/ns2/example.db.in ZONE 2019,2020,2021,2022
./bin/tests/system/geoip2/ns2/named1.conf.in CONF-C 2019,2020,2021,2022
./bin/tests/system/geoip2/ns2/named10.conf.in CONF-C 2019,2020,2021,2022
./bin/tests/system/geoip2/ns2/named11.conf.in CONF-C 2019,2020,2021,2022
./bin/tests/system/geoip2/ns2/named12.conf.in CONF-C 2019,2020,2021,2022
./bin/tests/system/geoip2/ns2/named13.conf.in CONF-C 2019,2020,2021,2022
./bin/tests/system/geoip2/ns2/named14.conf.in CONF-C 2019,2020,2021,2022
./bin/tests/system/geoip2/ns2/named2.conf.in CONF-C 2019,2020,2021,2022
./bin/tests/system/geoip2/ns2/named3.conf.in CONF-C 2019,2020,2021,2022
./bin/tests/system/geoip2/ns2/named4.conf.in CONF-C 2019,2020,2021,2022
./bin/tests/system/geoip2/ns2/named5.conf.in CONF-C 2019,2020,2021,2022
./bin/tests/system/geoip2/ns2/named6.conf.in CONF-C 2019,2020,2021,2022
./bin/tests/system/geoip2/ns2/named7.conf.in CONF-C 2019,2020,2021,2022
./bin/tests/system/geoip2/ns2/named8.conf.in CONF-C 2019,2020,2021,2022
./bin/tests/system/geoip2/ns2/named9.conf.in CONF-C 2019,2020,2021,2022
./bin/tests/system/geoip2/prereq.sh SH 2019,2020,2021,2022
./bin/tests/system/geoip2/setup.sh SH 2019,2020,2021,2022
./bin/tests/system/geoip2/tests.sh SH 2019,2020,2021,2022
./bin/tests/system/glue/clean.sh SH 2000,2001,2004,2007,2012,2014,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/glue/fi.good X 2000,2001,2018,2019,2020,2021,2022
./bin/tests/system/glue/noglue.good X 2000,2001,2018,2019,2020,2021,2022
./bin/tests/system/glue/ns1/cache.in ZONE 2000,2001,2004,2007,2016,2018,2019,2020,2021,2022
./bin/tests/system/glue/ns1/mil.db ZONE 2000,2001,2004,2007,2016,2018,2019,2020,2021,2022

./bin/tests/system/glue/ns1/named.conf.in CONF-C 2018,2019,2020,2021,2022
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./bin/tests/system/glue/ns1/root-servers.nil.db ZONE 2000,2001,2004,2007,2016,2018,2019,2020,2021,2022
./bin/tests/system/glue/ns1/root.db ZONE 2000,2001,2004,2007,2016,2018,2019,2020,2021,2022
./bin/tests/system/glue/setup.sh SH 2001,2004,2007,2012,2016,2018,2019,2020,2021,2022
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./bin/tests/system/glue/yy.good X 2000,2001,2003,2018,2019,2020,2021,2022
./bin/tests/system/gost/clean.sh SH 2010,2012,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/gost/ns1/named.conf CONF-C 2010,2016,2018,2019,2020,2021,2022
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./bin/tests/system/gost/ns1/sign.sh SH 2010,2012,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/gost/ns2/named.conf CONF-C 2010,2016,2018,2019,2020,2021,2022
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./bin/tests/system/gost/setup.sh SH 2010,2012,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/gost/tests.sh SH 2010,2012,2013,2016,2018,2019,2020,2021,2022
./bin/tests/system/idna/clean.sh SH 2018,2019,2020,2021,2022
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./bin/tests/system/idna/ns1/root.db ZONE 2018,2019,2020,2021,2022
./bin/tests/system/idna/setup.sh SH 2018,2019,2020,2021,2022
./bin/tests/system/idna/tests.sh SH 2018,2019,2020,2021,2022
./bin/tests/system/ifconfig.bat BAT 2016,2018,2019,2020,2021,2022
./bin/tests/system/ifconfig.sh SH
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./bin/tests/system/inline/checkdsa.sh.in SH 2013,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/inline/clean.sh SH 2011,2012,2013,2014,2015,2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/inline/ns1/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/inline/ns1/root.db.in ZONE 2011,2012,2013,2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/inline/ns1/sign.sh SH 2011,2012,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/inline/ns2/bits.db.in ZONE 2011,2016,2018,2019,2020,2021,2022
./bin/tests/system/inline/ns2/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/inline/ns2/nsec3-loop.db.in ZONE 2017,2018,2019,2020,2021,2022
./bin/tests/system/inline/ns3/master.db.in ZONE 2011,2012,2016,2018,2019,2020,2021,2022
./bin/tests/system/inline/ns3/master2.db.in ZONE 2011,2012,2016,2018,2019,2020,2021,2022
./bin/tests/system/inline/ns3/master3.db.in ZONE 2012,2016,2018,2019,2020,2021,2022
./bin/tests/system/inline/ns3/master4.db.in ZONE 2012,2016,2018,2019,2020,2021,2022
./bin/tests/system/inline/ns3/master5.db.in ZONE 2018,2019,2020,2021,2022
./bin/tests/system/inline/ns3/master6.db.in ZONE 2019,2020,2021,2022
./bin/tests/system/inline/ns3/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/inline/ns3/sign.sh SH 2011,2012,2013,2014,2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/inline/ns4/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/inline/ns4/noixfr.db.in ZONE 2011,2016,2018,2019,2020,2021,2022
./bin/tests/system/inline/ns5/named.conf.post CONF-C 2011,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/inline/ns5/named.conf.pre CONF-C 2011,2016,2018,2019,2020,2021,2022
./bin/tests/system/inline/ns6/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/inline/ns7/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/inline/ns7/sign.sh SH 2017,2018,2019,2020,2021,2022
./bin/tests/system/inline/ns8/example.com.db.in ZONE 2020,2021,2022

./bin/tests/system/inline/ns8/named.conf.in CONF-C 2020,2021,2022
./bin/tests/system/inline/ns8/sign.sh SH 2020,2021,2022
./bin/tests/system/inline/prereq.sh SH 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/inline/setup.sh SH 2011,2012,2013,2014,2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/inline/tests.sh SH 2011,2012,2013,2014,2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/integrity/clean.sh SH 2017,2018,2019,2020,2021,2022
./bin/tests/system/integrity/ns1/mx-cname.db ZONE 2017,2018,2019,2020,2021,2022
./bin/tests/system/integrity/ns1/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/integrity/ns1/srv-cname.db ZONE 2017,2018,2019,2020,2021,2022
./bin/tests/system/integrity/setup.sh SH 2018,2019,2020,2021,2022
./bin/tests/system/integrity/tests.sh SH 2017,2018,2019,2020,2021,2022
./bin/tests/system/ixfr/ans2/startme X 2011,2018,2019,2020,2021,2022
./bin/tests/system/ixfr/clean.sh SH 2001,2004,2007,2011,2012,2014,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/ixfr/ns1/startme X 2012,2013,2018,2019,2020,2021,2022
./bin/tests/system/ixfr/ns3/mytest0.db ZONE 2011,2016,2018,2019,2020,2021,2022
./bin/tests/system/ixfr/ns3/mytest1.db ZONE 2011,2016,2018,2019,2020,2021,2022
./bin/tests/system/ixfr/ns3/mytest2.db ZONE 2011,2016,2018,2019,2020,2021,2022
./bin/tests/system/ixfr/ns3/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/ixfr/ns3/subtest0.db ZONE 2011,2016,2018,2019,2020,2021,2022
./bin/tests/system/ixfr/ns3/subtest1.db ZONE 2011,2016,2018,2019,2020,2021,2022
./bin/tests/system/ixfr/ns4/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/ixfr/ns5/named.conf.in CONF-C 2019,2020,2021,2022
./bin/tests/system/ixfr/prereq.sh SH 2001,2004,2007,2012,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/ixfr/setup.sh SH 2001,2004,2007,2011,2012,2013,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/ixfr/tests.sh SH 2001,2004,2007,2011,2012,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/keymgr/01-ksk-inactive/README TXT.BRIEF 2016,2018,2019,2020,2021,2022
./bin/tests/system/keymgr/01-ksk-inactive/expect X 2016,2018,2019,2020,2021,2022
./bin/tests/system/keymgr/02-zsk-inactive/README TXT.BRIEF 2016,2018,2019,2020,2021,2022
./bin/tests/system/keymgr/02-zsk-inactive/expect X 2016,2018,2019,2020,2021,2022
./bin/tests/system/keymgr/03-ksk-unpublished/README TXT.BRIEF 2016,2018,2019,2020,2021,2022
./bin/tests/system/keymgr/03-ksk-unpublished/expect X 2016,2018,2019,2020,2021,2022
./bin/tests/system/keymgr/04-zsk-unpublished/README TXT.BRIEF 2016,2018,2019,2020,2021,2022
./bin/tests/system/keymgr/04-zsk-unpublished/expect X 2016,2018,2019,2020,2021,2022
./bin/tests/system/keymgr/05-ksk-unpub-active/README TXT.BRIEF 2016,2018,2019,2020,2021,2022
./bin/tests/system/keymgr/05-ksk-unpub-active/expect X 2016,2018,2019,2020,2021,2022
./bin/tests/system/keymgr/06-zsk-unpub-active/README TXT.BRIEF 2016,2018,2019,2020,2021,2022
./bin/tests/system/keymgr/06-zsk-unpub-active/expect X 2016,2018,2019,2020,2021,2022
./bin/tests/system/keymgr/07-ksk-ttl/README TXT.BRIEF 2016,2018,2019,2020,2021,2022
./bin/tests/system/keymgr/07-ksk-ttl/expect X 2016,2018,2019,2020,2021,2022
./bin/tests/system/keymgr/08-zsk-ttl/README TXT.BRIEF 2016,2018,2019,2020,2021,2022
./bin/tests/system/keymgr/08-zsk-ttl/expect X 2016,2018,2019,2020,2021,2022
./bin/tests/system/keymgr/09-no-keys/README TXT.BRIEF 2016,2018,2019,2020,2021,2022
./bin/tests/system/keymgr/09-no-keys/expect X 2016,2018,2019,2020,2021,2022
./bin/tests/system/keymgr/10-change-roll/README TXT.BRIEF 2016,2018,2019,2020,2021,2022
./bin/tests/system/keymgr/10-change-roll/expect X 2016,2018,2019,2020,2021,2022
./bin/tests/system/keymgr/11-many-simul/README TXT.BRIEF 2016,2018,2019,2020,2021,2022
./bin/tests/system/keymgr/11-many-simul/expect X 2016,2018,2019,2020,2021,2022
./bin/tests/system/keymgr/12-many-active/README TXT.BRIEF 2016,2018,2019,2020,2021,2022

./bin/tests/system/keymgr/12-many-active/expect X 2016,2018,2019,2020,2021,2022
./bin/tests/system/keymgr/13-noroll/README TXT.BRIEF 2016,2018,2019,2020,2021,2022
./bin/tests/system/keymgr/13-noroll/expect X 2016,2018,2019,2020,2021,2022
./bin/tests/system/keymgr/14-wrongalg/README TXT.BRIEF 2016,2018,2019,2020,2021,2022
./bin/tests/system/keymgr/14-wrongalg/expect X 2016,2018,2019,2020,2021,2022
./bin/tests/system/keymgr/15-unspec/README TXT.BRIEF 2016,2018,2019,2020,2021,2022
./bin/tests/system/keymgr/15-unspec/expect X 2016,2018,2019,2020,2021,2022
./bin/tests/system/keymgr/16-wrongalg-unspec/README TXT.BRIEF 2016,2018,2019,2020,2021,2022
./bin/tests/system/keymgr/16-wrongalg-unspec/expect X 2016,2018,2019,2020,2021,2022
./bin/tests/system/keymgr/17-noforce/README TXT.BRIEF 2016,2018,2019,2020,2021,2022
./bin/tests/system/keymgr/17-noforce/expect X 2016,2018,2019,2020,2021,2022
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./bin/tests/system/keymgr/18-nonstd-prepub/expect X 2016,2018,2019,2020,2021,2022
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./bin/tests/system/keymgr/19-old-keys/expect X 2019,2020,2021,2022
./bin/tests/system/keymgr/19-old-keys/extra.sh SH 2019,2020,2021,2022
./bin/tests/system/keymgr/19-old-keys/policy.conf CONF-C 2019,2020,2021,2022
./bin/tests/system/keymgr/clean.sh SH 2016,2018,2019,2020,2021,2022
./bin/tests/system/keymgr/policy.conf CONF-C 2016,2018,2019,2020,2021,2022
./bin/tests/system/keymgr/policy.good X 2016,2018,2019,2020,2021,2022
./bin/tests/system/keymgr/policy.sample CONF-C 2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/keymgr/prereq.sh SH 2016,2018,2019,2020,2021,2022
./bin/tests/system/keymgr/setup.sh SH 2016,2018,2019,2020,2021,2022
./bin/tests/system/keymgr/testpolicy.py PYTHON 2016,2018,2019,2020,2021,2022
./bin/tests/system/keymgr/tests.sh SH 2016,2018,2019,2020,2021,2022
./bin/tests/system/legacy/build.sh SH 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/legacy/clean.sh SH 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/legacy/ns1/named1.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/legacy/ns1/named2.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/legacy/ns1/root.db ZONE 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/legacy/ns1/trusted.conf X 2014,2018,2019,2020,2021,2022
./bin/tests/system/legacy/ns10/ednsrefused.db ZONE 2018,2019,2020,2021,2022
./bin/tests/system/legacy/ns10/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/legacy/ns10/named.ednsrefused X 2018,2019,2020,2021,2022
./bin/tests/system/legacy/ns2/dropedns.db ZONE 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/legacy/ns2/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/legacy/ns2/named.dropedns X 2014,2018,2019,2020,2021,2022
./bin/tests/system/legacy/ns3/dropedns-notcp.db ZONE 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/legacy/ns3/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/legacy/ns3/named.dropedns X 2014,2018,2019,2020,2021,2022
./bin/tests/system/legacy/ns3/named.notcp X 2014,2018,2019,2020,2021,2022
./bin/tests/system/legacy/ns4/named.args X 2014,2018,2019,2020,2021,2022
./bin/tests/system/legacy/ns4/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/legacy/ns4/plain.db ZONE 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/legacy/ns5/named.args X 2014,2018,2019,2020,2021,2022
./bin/tests/system/legacy/ns5/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/legacy/ns5/named.notcp X 2014,2018,2019,2020,2021,2022

./bin/tests/system/legacy/ns5/plain-notcp.db ZONE 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/legacy/ns6/edns512.db.in ZONE 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/legacy/ns6/edns512.db.signed X 2014,2018,2019,2020,2021,2022
./bin/tests/system/legacy/ns6/named.args X 2014,2018,2019,2020,2021,2022
./bin/tests/system/legacy/ns6/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/legacy/ns6/sign.sh SH 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/legacy/ns7/edns512-notcp.db.in ZONE 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/legacy/ns7/edns512-notcp.db.signed X 2014,2018,2019,2020,2021,2022
./bin/tests/system/legacy/ns7/named.args X 2014,2018,2019,2020,2021,2022
./bin/tests/system/legacy/ns7/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/legacy/ns7/named.notcp X 2014,2018,2019,2020,2021,2022
./bin/tests/system/legacy/ns7/sign.sh SH 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/legacy/ns8/ednsformerr.db ZONE 2018,2019,2020,2021,2022
./bin/tests/system/legacy/ns8/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/legacy/ns8/named.ednsformerr X 2018,2019,2020,2021,2022
./bin/tests/system/legacy/ns9/ednsnotimp.db ZONE 2018,2019,2020,2021,2022
./bin/tests/system/legacy/ns9/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/legacy/ns9/named.ednsnotimp X 2018,2019,2020,2021,2022
./bin/tests/system/legacy/setup.sh SH 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/legacy/tests.sh SH 2014,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/limits/clean.sh SH 2000,2001,2004,2007,2012,2014,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/limits/knowngood.dig.out.1000 X 2000,2001,2018,2019,2020,2021,2022
./bin/tests/system/limits/knowngood.dig.out.2000 X 2000,2001,2018,2019,2020,2021,2022
./bin/tests/system/limits/knowngood.dig.out.3000 X 2000,2001,2018,2019,2020,2021,2022
./bin/tests/system/limits/knowngood.dig.out.4000 X 2000,2001,2018,2019,2020,2021,2022
./bin/tests/system/limits/knowngood.dig.out.a-maximum-rrset X 2000,2001,2018,2019,2020,2021,2022
./bin/tests/system/limits/ns1/example.db ZONE 2000,2001,2004,2007,2016,2018,2019,2020,2021,2022
./bin/tests/system/limits/ns1/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/limits/ns1/root.db ZONE 2000,2001,2004,2007,2016,2018,2019,2020,2021,2022
./bin/tests/system/limits/setup.sh SH 2018,2019,2020,2021,2022
./bin/tests/system/limits/tests.sh SH 2000,2001,2004,2007,2011,2012,2016,2018,2019,2020,2021,2022
./bin/tests/system/logfileconfig/clean.sh SH 2011,2012,2014,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/logfileconfig/ns1/controls.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/logfileconfig/ns1/named.dirconf CONF-C 2011,2013,2016,2018,2019,2020,2021,2022
./bin/tests/system/logfileconfig/ns1/named.pipeconf CONF-C 2011,2013,2016,2018,2019,2020,2021,2022
./bin/tests/system/logfileconfig/ns1/named.plain CONF-C 2011,2013,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/logfileconfig/ns1/named.plainconf CONF-C 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/logfileconfig/ns1/named.symconf CONF-C 2011,2013,2016,2018,2019,2020,2021,2022
./bin/tests/system/logfileconfig/ns1/named.unlimited CONF-C 2016,2018,2019,2020,2021,2022
./bin/tests/system/logfileconfig/ns1/named.versconf CONF-C 2016,2018,2019,2020,2021,2022
./bin/tests/system/logfileconfig/ns1/rndc.conf.in CONF-C 2011,2013,2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/logfileconfig/ns1/root.db ZONE 2011,2016,2018,2019,2020,2021,2022
./bin/tests/system/logfileconfig/setup.sh SH 2011,2012,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/logfileconfig/tests.sh SH 2011,2012,2013,2014,2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/lwresd/Makefile.in MAKE
2000,2001,2002,2004,2007,2009,2012,2014,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/lwresd/clean.sh SH 2008,2012,2013,2014,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/lwresd/lwresd1/lwresd.conf CONF-C 2000,2001,2004,2007,2016,2018,2019,2020,2021,2022

./bin/tests/system/lwresd/lwresd1/nosearch.conf CONF-C 2016,2018,2019,2020,2021,2022
./bin/tests/system/lwresd/lwresd1/resolv.conf CONF-SH
2000,2001,2004,2007,2012,2016,2018,2019,2020,2021,2022
./bin/tests/system/lwresd/lwtest.c C
2000,2001,2002,2004,2007,2008,2012,2013,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/lwresd/ns1/10.10.10.in-addr.arpa.db ZONE 2000,2001,2004,2007,2016,2018,2019,2020,2021,2022
./bin/tests/system/lwresd/ns1/e.example1.db X 2008,2018,2019,2020,2021,2022
./bin/tests/system/lwresd/ns1/example1.db ZONE
2000,2001,2002,2003,2004,2007,2008,2016,2018,2019,2020,2021,2022
./bin/tests/system/lwresd/ns1/example2.db ZONE 2000,2001,2002,2004,2007,2016,2018,2019,2020,2021,2022
./bin/tests/system/lwresd/ns1/ip6.arpa.db ZONE 2000,2001,2002,2004,2007,2016,2018,2019,2020,2021,2022
./bin/tests/system/lwresd/ns1/ip6.int.db ZONE 2000,2001,2002,2004,2007,2016,2018,2019,2020,2021,2022
./bin/tests/system/lwresd/ns1/named.conf CONF-C
2000,2001,2004,2006,2007,2008,2016,2018,2019,2020,2021,2022
./bin/tests/system/lwresd/ns1/root.db ZONE 2000,2001,2004,2007,2016,2018,2019,2020,2021,2022
./bin/tests/system/lwresd/resolv.conf CONF-SH 2000,2001,2004,2007,2012,2016,2018,2019,2020,2021,2022
./bin/tests/system/lwresd/tests.sh SH 2000,2001,2004,2007,2011,2012,2013,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/masterfile/clean.sh SH 2001,2004,2007,2010,2012,2014,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/masterfile/knowngood.dig.out X 2001,2004,2012,2018,2019,2020,2021,2022
./bin/tests/system/masterfile/ns1/include.db ZONE 2001,2004,2007,2012,2016,2018,2019,2020,2021,2022
./bin/tests/system/masterfile/ns1/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/masterfile/ns1/sub.db ZONE 2001,2004,2007,2016,2018,2019,2020,2021,2022
./bin/tests/system/masterfile/ns1/ttl1.db ZONE 2001,2004,2007,2016,2018,2019,2020,2021,2022
./bin/tests/system/masterfile/ns1/ttl2.db ZONE 2001,2004,2007,2016,2018,2019,2020,2021,2022
./bin/tests/system/masterfile/ns2/example.db ZONE 2010,2016,2018,2019,2020,2021,2022
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./bin/tests/system/masterfile/setup.sh SH 2018,2019,2020,2021,2022
./bin/tests/system/masterfile/tests.sh SH 2001,2004,2007,2010,2012,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/masterfile/zone/inheritownerafterinclude.db ZONE 2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/masterfile/zone/inheritownerafterinclude.good X 2015,2018,2019,2020,2021,2022
./bin/tests/system/masterfile/zone/nameservers.db ZONE 2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/masterformat/clean.sh SH 2005,2007,2011,2012,2013,2014,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/masterformat/ns1/compile.sh SH
2005,2006,2007,2011,2012,2013,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/masterformat/ns1/example.db ZONE 2005,2007,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/masterformat/ns1/large.db.in ZONE 2012,2016,2018,2019,2020,2021,2022
./bin/tests/system/masterformat/ns1/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/masterformat/ns1/signed.db ZONE 2013,2016,2018,2019,2020,2021,2022
./bin/tests/system/masterformat/ns2/formerly-text.db.in ZONE 2011,2016,2018,2019,2020,2021,2022
./bin/tests/system/masterformat/ns2/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/masterformat/ns3/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/masterformat/prereq.sh SH 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/masterformat/setup.sh SH 2005,2006,2007,2011,2012,2013,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/masterformat/tests.sh SH 2005,2007,2011,2012,2013,2014,2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/metadata/child.db ZONE 2009,2016,2018,2019,2020,2021,2022
./bin/tests/system/metadata/clean.sh SH 2009,2011,2012,2014,2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/metadata/parent.db ZONE 2009,2016,2018,2019,2020,2021,2022
./bin/tests/system/metadata/prereq.sh SH 2009,2012,2014,2016,2018,2019,2020,2021,2022

./bin/tests/system/metadata/setup.sh SH 2009,2011,2012,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/metadata/tests.sh SH 2009,2011,2012,2013,2014,2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/mkeys/README TXT.BRIEF 2015,2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/mkeys/clean.sh SH 2015,2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/mkeys/ns1/named1.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/mkeys/ns1/named2.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/mkeys/ns1/named3.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/mkeys/ns1/root.db ZONE 2015,2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/mkeys/ns1/sign.sh SH 2015,2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/mkeys/ns1/unsupported.key X 2019,2020,2021,2022
./bin/tests/system/mkeys/ns2/named.args X 2015,2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/mkeys/ns2/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/mkeys/ns3/named.args X 2015,2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/mkeys/ns3/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/mkeys/ns5/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/mkeys/ns5/named1.args X 2017,2018,2019,2020,2021,2022
./bin/tests/system/mkeys/ns5/named2.args X 2017,2018,2019,2020,2021,2022
./bin/tests/system/mkeys/ns6/named.args X 2019,2020,2021,2022
./bin/tests/system/mkeys/ns6/named.conf.in CONF-C 2019,2020,2021,2022
./bin/tests/system/mkeys/ns6/setup.sh SH 2019,2020,2021,2022
./bin/tests/system/mkeys/ns6/unsupported-managed.key X 2019,2020,2021,2022
./bin/tests/system/mkeys/ns7/named.conf.in CONF-C 2019,2020,2021,2022
./bin/tests/system/mkeys/prereq.sh SH 2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/mkeys/setup.sh SH 2015,2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/mkeys/tests.sh SH 2015,2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/names/clean.sh SH 2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/names/ns1/example.db ZONE 2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/names/ns1/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/names/setup.sh SH 2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/names/tests.sh SH 2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/notify/clean.sh SH 2000,2001,2004,2007,2011,2012,2014,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/notify/ns1/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/notify/ns1/root.db ZONE 2000,2001,2004,2007,2016,2018,2019,2020,2021,2022
./bin/tests/system/notify/ns2/example1.db ZONE 2000,2001,2002,2004,2007,2009,2016,2018,2019,2020,2021,2022
./bin/tests/system/notify/ns2/example2.db ZONE 2000,2001,2002,2004,2007,2009,2016,2018,2019,2020,2021,2022
./bin/tests/system/notify/ns2/example3.db ZONE 2000,2001,2002,2004,2007,2009,2016,2018,2019,2020,2021,2022
./bin/tests/system/notify/ns2/example4.db ZONE 2000,2001,2002,2004,2007,2009,2016,2018,2019,2020,2021,2022
./bin/tests/system/notify/ns2/generic.db ZONE 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/notify/ns2/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/notify/ns3/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/notify/ns4/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/notify/ns4/named.port.in X 2018,2019,2020,2021,2022
./bin/tests/system/notify/ns5/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/notify/ns5/x21.db ZONE 2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/notify/setup.sh SH 2000,2001,2004,2007,2012,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/notify/tests.sh SH
2000,2001,2004,2007,2011,2012,2013,2014,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/nslookup/clean.sh SH 2014,2015,2016,2018,2019,2020,2021,2022

./bin/tests/system/nslookup/ns1/example.net.db ZONE 2016,2018,2019,2020,2021,2022
./bin/tests/system/nslookup/ns1/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/nslookup/setup.sh SH 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/nslookup/tests.sh SH 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/nsupdate/ans4/ans.pl PERL 2017,2018,2019,2020,2021,2022
./bin/tests/system/nsupdate/clean.sh SH
2000,2001,2004,2007,2009,2010,2011,2012,2014,2015,2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/nsupdate/commandlist X 2012,2018,2019,2020,2021,2022
./bin/tests/system/nsupdate/knowngood.ns1.after X 2000,2001,2003,2004,2009,2018,2019,2020,2021,2022
./bin/tests/system/nsupdate/knowngood.ns1.afterstop X 2001,2004,2018,2019,2020,2021,2022
./bin/tests/system/nsupdate/knowngood.ns1.before X 2000,2001,2003,2004,2009,2018,2019,2020,2021,2022
./bin/tests/system/nsupdate/krb/setup.sh SH 2018,2019,2020,2021,2022
./bin/tests/system/nsupdate/ns1/example1.db ZONE
2000,2001,2002,2004,2007,2009,2016,2018,2019,2020,2021,2022
./bin/tests/system/nsupdate/ns1/many.test.db.in ZONE 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/nsupdate/ns1/max-ttl.db ZONE 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/nsupdate/ns1/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/nsupdate/ns1/sample.db.in ZONE 2016,2018,2019,2020,2021,2022
./bin/tests/system/nsupdate/ns10/dns.keytab X 2018,2019,2020,2021,2022
./bin/tests/system/nsupdate/ns10/example.com.db.in ZONE 2018,2019,2020,2021,2022
./bin/tests/system/nsupdate/ns10/in-addr.db.in ZONE 2018,2019,2020,2021,2022
./bin/tests/system/nsupdate/ns10/machine.ccache X 2018,2019,2020,2021,2022
./bin/tests/system/nsupdate/ns10/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/nsupdate/ns2/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/nsupdate/ns2/sample.db.in ZONE 2016,2018,2019,2020,2021,2022
./bin/tests/system/nsupdate/ns3/delegation.test.db.in ZONE 2016,2018,2019,2020,2021,2022
./bin/tests/system/nsupdate/ns3/dnskey.test.db.in ZONE 2011,2016,2018,2019,2020,2021,2022
./bin/tests/system/nsupdate/ns3/example.db.in ZONE 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/nsupdate/ns3/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/nsupdate/ns3/nsec3param.test.db.in ZONE 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/nsupdate/ns3/sign.sh SH 2010,2011,2012,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/nsupdate/ns3/too-big.test.db.in ZONE 2016,2018,2019,2020,2021,2022
./bin/tests/system/nsupdate/ns5/local.db.in ZONE 2017,2018,2019,2020,2021,2022
./bin/tests/system/nsupdate/ns5/named.args X 2017,2018,2019,2020,2021,2022
./bin/tests/system/nsupdate/ns5/named.conf.in CONF-C 2017,2018,2019,2020,2021,2022
./bin/tests/system/nsupdate/ns6/in-addr.db.in ZONE 2018,2019,2020,2021,2022
./bin/tests/system/nsupdate/ns6/named.args X 2018,2019,2020,2021,2022
./bin/tests/system/nsupdate/ns6/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/nsupdate/ns7/dns.keytab X 2018,2019,2020,2021,2022
./bin/tests/system/nsupdate/ns7/example.com.db.in ZONE 2018,2019,2020,2021,2022
./bin/tests/system/nsupdate/ns7/in-addr.db.in ZONE 2018,2019,2020,2021,2022
./bin/tests/system/nsupdate/ns7/machine.ccache X 2018,2019,2020,2021,2022
./bin/tests/system/nsupdate/ns7/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/nsupdate/ns8/dns-other-than-KRB5_KTNAME.keytab X 2018,2019,2020,2021,2022
./bin/tests/system/nsupdate/ns8/example.com.db.in ZONE 2018,2019,2020,2021,2022
./bin/tests/system/nsupdate/ns8/in-addr.db.in ZONE 2018,2019,2020,2021,2022
./bin/tests/system/nsupdate/ns8/machine.ccache X 2018,2019,2020,2021,2022
./bin/tests/system/nsupdate/ns8/named.conf.in CONF-C 2018,2019,2020,2021,2022

./bin/tests/system/nsupdate/ns9/dns.keytab X 2018,2019,2020,2021,2022
./bin/tests/system/nsupdate/ns9/example.com.db.in ZONE 2018,2019,2020,2021,2022
./bin/tests/system/nsupdate/ns9/in-addr.db.in ZONE 2018,2019,2020,2021,2022
./bin/tests/system/nsupdate/ns9/machine.ccache X 2018,2019,2020,2021,2022
./bin/tests/system/nsupdate/ns9/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/nsupdate/prereq.sh SH 2014,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/nsupdate/setup.sh SH
2000,2001,2004,2007,2009,2010,2011,2012,2014,2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/nsupdate/tests.sh SH
2000,2001,2004,2007,2009,2010,2011,2012,2013,2014,2015,2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/nsupdate/update_test.pl PERL 2000,2001,2004,2007,2012,2016,2018,2019,2020,2021,2022
./bin/tests/system/nsupdate/verylarge.in X 2013,2018,2019,2020,2021,2022
./bin/tests/system/nzd2nzf/clean.sh SH 2016,2018,2019,2020,2021,2022
./bin/tests/system/nzd2nzf/ns1/added.db ZONE 2016,2018,2019,2020,2021,2022
./bin/tests/system/nzd2nzf/ns1/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/nzd2nzf/prereq.sh SH 2016,2018,2019,2020,2021,2022
./bin/tests/system/nzd2nzf/setup.sh SH 2016,2018,2019,2020,2021,2022
./bin/tests/system/nzd2nzf/tests.sh SH 2016,2018,2019,2020,2021,2022
./bin/tests/system/org.isc.bind.system SH 2010,2012,2013,2016,2018,2019,2020,2021,2022
./bin/tests/system/org.isc.bind.system.plist X 2010,2018,2019,2020,2021,2022
./bin/tests/system/packet.pl PERL 2011,2012,2016,2018,2019,2020,2021,2022
./bin/tests/system/parallel.sh SH 2019,2020,2021,2022
./bin/tests/system/pending/clean.sh SH 2009,2012,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/pending/ns1/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/pending/ns1/root.db.in ZONE 2009,2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/pending/ns1/sign.sh SH 2009,2010,2012,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/pending/ns2/example.com.db.in ZONE 2009,2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/pending/ns2/example.db.in ZONE 2009,2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/pending/ns2/forgery.db ZONE 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/pending/ns2/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/pending/ns2/sign.sh SH 2009,2010,2012,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/pending/ns3/hostile.db ZONE 2009,2016,2018,2019,2020,2021,2022
./bin/tests/system/pending/ns3/mail.example.db ZONE 2009,2016,2018,2019,2020,2021,2022
./bin/tests/system/pending/ns3/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/pending/ns4/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/pending/prereq.sh SH 2009,2012,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/pending/setup.sh SH 2009,2012,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/pending/tests.sh SH 2009,2010,2012,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/pipelined/Makefile.in MAKE 2014,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/pipelined/clean.sh SH 2014,2015,2016,2018,2019,2020,2021,2022
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./bin/tests/system/pipelined/ns3/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/pipelined/ns4/named.conf.in CONF-C 2018,2019,2020,2021,2022
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./bin/tests/system/pipelined/setup.sh SH 2014,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/pipelined/tests.sh SH 2014,2015,2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/pkcs11/2037-pk11_numbits-crash-test.pkt X 2020,2021,2022
./bin/tests/system/pkcs11/clean.sh SH 2010,2012,2014,2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/pkcs11/ns1/example.db.in ZONE 2010,2016,2018,2019,2020,2021,2022
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./bin/tests/system/pkcs11/tests.sh SH 2010,2012,2014,2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/pkcs11/usepkcs11 X 2010,2018,2019,2020,2021,2022
./bin/tests/system/pkcs11ssl/clean.sh SH 2014,2016,2018,2019,2020,2021,2022
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./bin/tests/system/pkcs11ssl/setup.sh SH 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/pkcs11ssl/tests.sh SH 2014,2016,2018,2019,2020,2021,2022
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./bin/tests/system/reclimit/README TXT.BRIEF 2014,2016,2017,2018,2019,2020,2021,2022
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./bin/tests/system/reclimit/ans4/ans.pl PERL 2018,2019,2020,2021,2022
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./bin/tests/system/redirect/clean.sh SH 2011,2012,2013,2014,2015,2016,2018,2019,2020,2021,2022
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./bin/tests/system/redirect/conf/good3.conf CONF-C 2011,2016,2018,2019,2020,2021,2022
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./bin/tests/system/redirect/ns1/root.db ZONE 2011,2016,2018,2019,2020,2021,2022

./bin/tests/system/redirect/ns1/sign.sh SH 2011,2012,2014,2016,2018,2019,2020,2021,2022
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./bin/tests/system/redirect/ns3/sign.sh SH 2015,2016,2018,2019,2020,2021,2022
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./bin/tests/system/resolver/ns4/tld2.db ZONE 2012,2014,2016,2018,2019,2020,2021,2022
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./bin/tests/system/resolver/ns6/ds.example.net.db.in ZONE 2016,2018,2019,2020,2021,2022
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./bin/tests/system/resolver/ns6/keygen.sh SH 2010,2012,2014,2016,2017,2018,2019,2020,2021,2022
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./bin/tests/system/resolver/prereq.sh SH 2000,2001,2004,2007,2012,2014,2016,2018,2019,2020,2021,2022
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./bin/tests/system/resolver/tests.sh SH
2000,2001,2004,2007,2009,2010,2011,2012,2013,2014,2015,2016,2017,2018,2019,2020,2021,2022
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./bin/tests/system/rndc/clean.sh SH 2011,2012,2013,2014,2015,2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/rndc/gencheck.c C 2014,2015,2016,2018,2019,2020,2021,2022
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./bin/tests/system/rootkeysentinel/ns2/sign.sh SH 2018,2019,2020,2021,2022
./bin/tests/system/rootkeysentinel/ns3/hint.db ZONE 2018,2019,2020,2021,2022
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./bin/tests/system/rootkeysentinel/setup.sh SH 2018,2019,2020,2021,2022
./bin/tests/system/rootkeysentinel/tests.sh SH 2018,2019,2020,2021,2022
./bin/tests/system/rpz/README TXT.BRIEF 2019,2020,2021,2022
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./bin/tests/system/rpz/ns2/blv3.tld2.db.in ZONE 2013,2016,2018,2019,2020,2021,2022
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./bin/tests/system/rpz/ns3/broken.db.in ZONE 2019,2020,2021,2022

./bin/tests/system/rpz/ns3/crash1 X 2011,2013,2018,2019,2020,2021,2022
./bin/tests/system/rpz/ns3/crash2 X 2011,2012,2013,2018,2019,2020,2021,2022
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./bin/tests/system/rpz/ns3/manual-update-rpz-2.db.in ZONE 2019,2020,2021,2022
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./bin/tests/system/rpzrecurse/ns3/policy.db ZONE 2016,2018,2019,2020,2021,2022
./bin/tests/system/rpzrecurse/ns3/root.db ZONE 2016,2018,2019,2020,2021,2022
./bin/tests/system/rpzrecurse/ns4/child.example.db ZONE 2016,2018,2019,2020,2021,2022
./bin/tests/system/rpzrecurse/ns4/named.conf.in CONF-C 2016,2018,2019,2020,2021,2022
./bin/tests/system/rpzrecurse/prereq.sh SH 2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/rpzrecurse/setup.sh SH 2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/rpzrecurse/testgen.pl PERL 2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/rpzrecurse/tests.sh SH 2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/rrchecker/classlist.good X 2013,2018,2019,2020,2021,2022
./bin/tests/system/rrchecker/clean.sh SH 2013,2014,2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/rrchecker/privatelist.good X 2013,2018,2019,2020,2021,2022
./bin/tests/system/rrchecker/tests.sh SH 2013,2014,2015,2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/rrchecker/typelist.good X 2013,2014,2015,2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/rrl/broken.conf CONF-C 2016,2018,2019,2020,2021,2022
./bin/tests/system/rrl/clean.sh SH 2012,2013,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/rrl/ns1/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/rrl/ns1/root.db ZONE 2012,2013,2016,2018,2019,2020,2021,2022
./bin/tests/system/rrl/ns2/hints ZONE 2012,2013,2016,2018,2019,2020,2021,2022
./bin/tests/system/rrl/ns2/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/rrl/ns2/tld2.db ZONE 2012,2013,2016,2018,2019,2020,2021,2022
./bin/tests/system/rrl/ns3/hints ZONE 2012,2013,2016,2018,2019,2020,2021,2022
./bin/tests/system/rrl/ns3/named.conf.in CONF-C 2018,2019,2020,2021,2022
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./bin/tests/system/rrl/ns4/hints ZONE 2016,2018,2019,2020,2021,2022
./bin/tests/system/rrl/ns4/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/rrl/ns4/tld4.db ZONE 2016,2018,2019,2020,2021,2022
./bin/tests/system/rrl/setup.sh SH 2012,2013,2016,2018,2019,2020,2021,2022
./bin/tests/system/rrl/tests.sh SH 2012,2013,2015,2016,2018,2019,2020,2021,2022

./bin/tests/system/rrsetorder/clean.sh SH 2006,2007,2008,2011,2012,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/rrsetorder/dig.out.fixed.good X 2006,2018,2019,2020,2021,2022
./bin/tests/system/rrsetorder/dig.out.random.good1 X 2006,2018,2019,2020,2021,2022
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./bin/tests/system/rrsetorder/dig.out.random.good14 X 2006,2018,2019,2020,2021,2022
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./bin/tests/system/rrsetorder/dig.out.random.good18 X 2006,2018,2019,2020,2021,2022
./bin/tests/system/rrsetorder/dig.out.random.good19 X 2006,2018,2019,2020,2021,2022
./bin/tests/system/rrsetorder/dig.out.random.good2 X 2006,2018,2019,2020,2021,2022
./bin/tests/system/rrsetorder/dig.out.random.good20 X 2006,2018,2019,2020,2021,2022
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./bin/tests/system/rrsetorder/dig.out.random.good23 X 2006,2018,2019,2020,2021,2022
./bin/tests/system/rrsetorder/dig.out.random.good24 X 2006,2018,2019,2020,2021,2022
./bin/tests/system/rrsetorder/dig.out.random.good3 X 2006,2018,2019,2020,2021,2022
./bin/tests/system/rrsetorder/dig.out.random.good4 X 2006,2018,2019,2020,2021,2022
./bin/tests/system/rrsetorder/dig.out.random.good5 X 2006,2018,2019,2020,2021,2022
./bin/tests/system/rrsetorder/dig.out.random.good6 X 2006,2018,2019,2020,2021,2022
./bin/tests/system/rrsetorder/dig.out.random.good7 X 2006,2018,2019,2020,2021,2022
./bin/tests/system/rrsetorder/dig.out.random.good8 X 2006,2018,2019,2020,2021,2022
./bin/tests/system/rrsetorder/dig.out.random.good9 X 2006,2018,2019,2020,2021,2022
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./bin/tests/system/rrsetorder/ns4/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/rrsetorder/setup.sh SH 2018,2019,2020,2021,2022
./bin/tests/system/rrsetorder/tests.sh SH 2006,2007,2008,2011,2012,2014,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/rsabigexponent/Makefile.in MAKE 2012,2014,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/rsabigexponent/README.md TXT.BRIEF 2021,2022
./bin/tests/system/rsabigexponent/bigkey.c C 2012,2014,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/rsabigexponent/clean.sh SH 2012,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/rsabigexponent/conf/bad01.conf CONF-C 2012,2016,2018,2019,2020,2021,2022
./bin/tests/system/rsabigexponent/conf/bad02.conf CONF-C 2012,2016,2018,2019,2020,2021,2022
./bin/tests/system/rsabigexponent/conf/bad03.conf CONF-C 2012,2016,2018,2019,2020,2021,2022
./bin/tests/system/rsabigexponent/conf/good01.conf CONF-C 2012,2016,2018,2019,2020,2021,2022
./bin/tests/system/rsabigexponent/conf/good02.conf CONF-C 2012,2016,2018,2019,2020,2021,2022
./bin/tests/system/rsabigexponent/conf/good03.conf CONF-C 2012,2016,2018,2019,2020,2021,2022
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./bin/tests/system/rsabigexponent/ns1/sign.sh SH 2012,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/rsabigexponent/ns2/Xexample.+005+05896.key X 2012,2018,2019,2020,2021,2022
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./bin/tests/system/rsabigexponent/ns2/Xexample.+005+51829.key X 2012,2018,2019,2020,2021,2022
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./bin/tests/system/rsabigexponent/ns2/dsset-example.in X 2012,2018,2019,2020,2021,2022
./bin/tests/system/rsabigexponent/ns2/example.db.bad ZONE 2012,2016,2018,2019,2020,2021,2022
./bin/tests/system/rsabigexponent/ns2/example.db.in ZONE 2012,2016,2018,2019,2020,2021,2022
./bin/tests/system/rsabigexponent/ns2/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/rsabigexponent/ns2/sign.sh SH 2012,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/rsabigexponent/ns3/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/rsabigexponent/prereq.sh SH 2012,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/rsabigexponent/setup.sh SH 2012,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/rsabigexponent/tests.sh SH 2012,2016,2018,2019,2020,2021,2022
./bin/tests/system/run.gdb X 2019,2020,2021,2022
./bin/tests/system/run.sh SH 2000,2001,2004,2007,2010,2012,2014,2015,2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/runall.sh SH 2000,2001,2004,2007,2010,2011,2012,2014,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/runsequential.sh SH 2018,2019,2020,2021,2022
./bin/tests/system/runtime/README TXT.BRIEF 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/runtime/clean.sh SH 2014,2015,2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/runtime/ns2/named-alt1.conf.in CONF-C 2014,2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/runtime/ns2/named-alt2.conf.in CONF-C 2014,2016,2017,2018,2019,2020,2021,2022
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./bin/tests/system/runtime/ns2/named-alt6.conf.in CONF-C 2014,2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/runtime/ns2/named-alt9.conf.in CONF-C 2019,2020,2021,2022
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./bin/tests/system/runtime/setup.sh SH 2015,2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/runtime/tests.sh SH 2014,2015,2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/send.pl PERL 2001,2004,2007,2011,2012,2016,2018,2019,2020,2021,2022
./bin/tests/system/setup.sh SH 2000,2001,2004,2007,2012,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/sfcache/README TXT.BRIEF 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/sfcache/clean.sh SH 2014,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/sfcache/ns1/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/sfcache/ns1/root.db.in ZONE 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/sfcache/ns1/sign.sh SH 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/sfcache/ns2/example.db.in ZONE 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/sfcache/ns2/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/sfcache/ns2/sign.sh SH 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/sfcache/ns5/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/sfcache/ns5/trusted.conf.bad CONF-C 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/sfcache/prereq.sh SH 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/sfcache/setup.sh SH 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/sfcache/tests.sh SH 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/smartsign/child.db ZONE 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/smartsign/clean.sh SH 2010,2012,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/smartsign/parent.db ZONE 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/smartsign/prereq.sh SH 2010,2012,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/smartsign/setup.sh SH 2010,2012,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/smartsign/tests.sh SH 2010,2011,2012,2014,2016,2017,2018,2019,2020,2021,2022

./bin/tests/system/sortlist/clean.sh SH 2000,2001,2004,2007,2009,2012,2014,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/sortlist/ns1/example.db ZONE 2000,2001,2004,2007,2016,2018,2019,2020,2021,2022
./bin/tests/system/sortlist/ns1/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/sortlist/ns1/root.db ZONE 2000,2001,2004,2007,2016,2018,2019,2020,2021,2022
./bin/tests/system/sortlist/setup.sh SH 2018,2019,2020,2021,2022
./bin/tests/system/sortlist/tests.sh SH 2000,2001,2004,2007,2012,2016,2018,2019,2020,2021,2022
./bin/tests/system/spf/clean.sh SH 2013,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/spf/ns1/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/spf/ns1/spf.db ZONE 2013,2016,2018,2019,2020,2021,2022
./bin/tests/system/spf/setup.sh SH 2018,2019,2020,2021,2022
./bin/tests/system/spf/tests.sh SH 2013,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/start.pl SH
2001,2004,2005,2006,2007,2008,2010,2011,2012,2013,2014,2015,2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/start.sh SH 2000,2001,2004,2007,2012,2016,2018,2019,2020,2021,2022
./bin/tests/system/staticstub/clean.sh SH 2010,2012,2014,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/staticstub/conf/bad01.conf CONF-C 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/staticstub/conf/bad02.conf CONF-C 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/staticstub/conf/bad03.conf CONF-C 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/staticstub/conf/bad04.conf CONF-C 2010,2016,2018,2019,2020,2021,2022
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./bin/tests/system/staticstub/conf/bad06.conf CONF-C 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/staticstub/conf/bad07.conf CONF-C 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/staticstub/conf/bad08.conf CONF-C 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/staticstub/conf/bad09.conf CONF-C 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/staticstub/conf/bad10.conf CONF-C 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/staticstub/conf/bad11.conf CONF-C 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/staticstub/conf/good01.conf CONF-C 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/staticstub/conf/good02.conf CONF-C 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/staticstub/conf/good03.conf CONF-C 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/staticstub/conf/good04.conf CONF-C 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/staticstub/conf/good05.conf CONF-C 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/staticstub/knowngood.dig.out.rec X 2010,2013,2018,2019,2020,2021,2022
./bin/tests/system/staticstub/ns1/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/staticstub/ns1/root.db ZONE 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/staticstub/ns2/named.conf.in CONF-C 2010,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/staticstub/ns3/example.db.in ZONE 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/staticstub/ns3/example.org.db ZONE 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/staticstub/ns3/named.conf.in CONF-C 2010,2013,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/staticstub/ns3/sign.sh SH 2010,2012,2014,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/staticstub/ns3/undelegated.db.in ZONE 2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/staticstub/ns4/example.com.db ZONE 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/staticstub/ns4/example.info.db ZONE 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/staticstub/ns4/example.org.db ZONE 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/staticstub/ns4/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/staticstub/ns4/sign.sh SH 2010,2012,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/staticstub/ns4/sub.example.db.in ZONE 2010,2016,2018,2019,2020,2021,2022
./bin/tests/system/staticstub/prereq.sh SH 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/staticstub/setup.sh SH 2010,2012,2014,2016,2018,2019,2020,2021,2022

./bin/tests/system/staticstub/tests.sh SH 2010,2011,2012,2013,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/statistics/ans4/ans.pl PERL 2012,2016,2018,2019,2020,2021,2022
./bin/tests/system/statistics/clean.sh SH 2012,2014,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/statistics/ns1/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/statistics/ns1/root.db ZONE 2012,2016,2018,2019,2020,2021,2022
./bin/tests/system/statistics/ns1/zone.db ZONE 2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/statistics/ns2/example.db ZONE 2012,2016,2018,2019,2020,2021,2022
./bin/tests/system/statistics/ns2/internal.db ZONE 2012,2016,2018,2019,2020,2021,2022
./bin/tests/system/statistics/ns2/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/statistics/ns3/internal.db ZONE 2012,2016,2018,2019,2020,2021,2022
./bin/tests/system/statistics/ns3/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/statistics/ns3/root.hint ZONE 2012,2016,2018,2019,2020,2021,2022
./bin/tests/system/statistics/prereq.sh SH 2012,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/statistics/setup.sh SH 2018,2019,2020,2021,2022
./bin/tests/system/statistics/tests.sh SH 2012,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/statschannel/clean.sh SH 2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/statschannel/fetch.pl PERL 2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/statschannel/ns2/example.db ZONE 2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/statschannel/ns2/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/statschannel/prereq.sh SH 2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/statschannel/server-json.pl PERL 2015,2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/statschannel/server-xml.pl PERL 2015,2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/statschannel/setup.sh SH 2018,2019,2020,2021,2022
./bin/tests/system/statschannel/tests.sh SH 2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/statschannel/traffic-json.pl PERL 2015,2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/statschannel/traffic-xml.pl PERL 2015,2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/statschannel/traffic.expect.1 X 2015,2018,2019,2020,2021,2022
./bin/tests/system/statschannel/traffic.expect.2 X 2015,2018,2019,2020,2021,2022
./bin/tests/system/statschannel/traffic.expect.4 X 2015,2018,2019,2020,2021,2022
./bin/tests/system/statschannel/traffic.expect.5 X 2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/statschannel/traffic.expect.6 X 2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/stop.pl SH 2001,2004,2005,2006,2007,2012,2016,2018,2019,2020,2021,2022
./bin/tests/system/stop.sh SH 2000,2001,2004,2007,2012,2016,2018,2019,2020,2021,2022
./bin/tests/system/stopall.sh SH 2018,2019,2020,2021,2022
./bin/tests/system/stress/clean.sh SH 2000,2001,2004,2007,2012,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/stress/ns1/named.conf CONF-C 2000,2001,2004,2007,2016,2018,2019,2020,2021,2022
./bin/tests/system/stress/ns2/named.conf CONF-C 2000,2001,2004,2007,2016,2018,2019,2020,2021,2022
./bin/tests/system/stress/ns3/named.conf CONF-C 2000,2001,2004,2007,2013,2016,2018,2019,2020,2021,2022
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./bin/tests/system/stress/tests.sh SH 2000,2001,2004,2007,2012,2014,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/stress/update.pl PERL 2000,2001,2004,2007,2012,2016,2018,2019,2020,2021,2022
./bin/tests/system/stub/clean.sh SH 2000,2001,2004,2007,2012,2014,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/stub/knowngood.dig.out.norec X 2000,2001,2018,2019,2020,2021,2022
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./bin/tests/system/stub/ns1/named.conf.in CONF-C 2018,2019,2020,2021,2022

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./bin/tests/system/stub/ns2/child.example.db ZONE 2000,2001,2004,2007,2016,2018,2019,2020,2021,2022
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./bin/tests/system/stub/ns3/example.db ZONE 2000,2001,2004,2007,2016,2018,2019,2020,2021,2022
./bin/tests/system/stub/ns3/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/stub/ns4/example.db ZONE 2020,2021,2022
./bin/tests/system/stub/ns4/named.conf.in CONF-C 2020,2021,2022
./bin/tests/system/stub/ns5/named.conf.in CONF-C 2020,2021,2022
./bin/tests/system/stub/setup.sh SH 2018,2019,2020,2021,2022
./bin/tests/system/stub/tests.sh SH 2000,2001,2004,2007,2011,2012,2013,2016,2018,2019,2020,2021,2022
./bin/tests/system/tcp/ans6/ans.py PYTHON 2019,2020,2021,2022
./bin/tests/system/tcp/clean.sh SH 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/tcp/ns1/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/tcp/ns1/root.db ZONE 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/tcp/ns2/example.db ZONE 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/tcp/ns2/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/tcp/ns3/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/tcp/ns4/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/tcp/ns5/named.conf.in CONF-C 2019,2020,2021,2022
./bin/tests/system/tcp/prereq.sh SH 2019,2020,2021,2022
./bin/tests/system/tcp/setup.sh SH 2018,2019,2020,2021,2022
./bin/tests/system/tcp/tests.sh SH 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/testcrypto.sh SH 2014,2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/testsock.pl PERL 2000,2001,2004,2007,2010,2011,2012,2013,2016,2018,2019,2020,2021,2022
./bin/tests/system/testsock6.pl PERL 2010,2012,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/testsummary.sh SH 2018,2019,2020,2021,2022
./bin/tests/system/tkey/Makefile.in MAKE
2001,2002,2004,2007,2009,2012,2014,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/tkey/clean.sh SH 2001,2004,2007,2011,2012,2013,2014,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/tkey/keycreate.c C
2001,2004,2005,2007,2009,2011,2012,2014,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/tkey/keydelete.c C
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./bin/tests/system/tkey/prereq.sh SH 2001,2004,2006,2007,2009,2012,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/tkey/setup.sh SH 2001,2004,2007,2009,2012,2013,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/tkey/tests.sh SH 2001,2004,2007,2009,2011,2012,2013,2014,2016,2018,2019,2020,2021,2022
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./bin/tests/system/tsig/clean.sh SH 2005,2006,2007,2012,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/tsig/ns1/example.db ZONE 2005,2006,2007,2009,2012,2016,2018,2019,2020,2021,2022
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./bin/tests/system/tsiggss/ns1/dns.keytab X 2010,2018,2019,2020,2021,2022
./bin/tests/system/tsiggss/ns1/example.nil.db.in X 2011,2018,2019,2020,2021,2022
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./bin/tests/system/tsiggss/prereq.sh SH 2010,2011,2012,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/tsiggss/setup.sh SH 2010,2011,2012,2014,2016,2018,2019,2020,2021,2022
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2000,2001,2004,2007,2012,2013,2014,2015,2016,2018,2019,2020,2021,2022
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./bin/tests/system/unknown/ns1/example-class10.db ZONE 2000,2001,2004,2007,2016,2018,2019,2020,2021,2022
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./bin/tests/system/upforwd/knowngood.after2 X 2000,2001,2018,2019,2020,2021,2022
./bin/tests/system/upforwd/knowngood.before X 2000,2001,2018,2019,2020,2021,2022
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./bin/tests/system/upforwd/prereq.sh SH 2012,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/upforwd/setup.sh SH 2000,2001,2004,2007,2011,2012,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/upforwd/tests.sh SH 2000,2001,2004,2007,2011,2012,2013,2014,2016,2018,2019,2020,2021,2022
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./bin/tests/system/views/ns2/clone.db ZONE 2013,2016,2018,2019,2020,2021,2022
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./bin/tests/system/views/ns5/named.conf.in CONF-C 2018,2019,2020,2021,2022
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./bin/tests/system/wildcard/ns1/dlv.db.in ZONE 2013,2016,2018,2019,2020,2021,2022
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./bin/tests/system/wildcard/ns1/private.nsec.db.in ZONE 2012,2013,2016,2018,2019,2020,2021,2022
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./bin/tests/system/wildcard/ns1/root.db.in ZONE 2012,2013,2016,2018,2019,2020,2021,2022
./bin/tests/system/wildcard/ns1/sign.sh SH 2012,2013,2014,2016,2018,2019,2020,2021,2022
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./bin/tests/system/wildcard/ns3/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/wildcard/ns4/named.conf.in CONF-C 2018,2019,2020,2021,2022
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./bin/tests/system/wildcard/prereq.sh SH 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/wildcard/setup.sh SH 2012,2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/wildcard/tests.sh SH 2012,2013,2016,2018,2019,2020,2021,2022
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./bin/tests/system/win32/bigkey.vcxproj.in X 2016,2017,2018,2019,2020,2021,2022
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./bin/tests/system/win32/feature-test.dsp.in X 2016,2018,2019,2020,2021,2022

./bin/tests/system/win32/feature-test.dsw X 2016,2018,2019,2020,2021,2022
./bin/tests/system/win32/feature-test.mak.in X 2016,2018,2019,2020,2021,2022
./bin/tests/system/win32/feature-test.vcxproj.filters.in X 2016,2018,2019,2020,2021,2022
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./bin/tests/system/win32/feature-test.vcxproj.user X 2016,2018,2019,2020,2021,2022
./bin/tests/system/win32/gencheck.dsp.in X 2016,2018,2019,2020,2021,2022
./bin/tests/system/win32/gencheck.dsw X 2016,2018,2019,2020,2021,2022
./bin/tests/system/win32/gencheck.mak.in X 2016,2018,2019,2020,2021,2022
./bin/tests/system/win32/gencheck.vcxproj.filters.in X 2016,2018,2019,2020,2021,2022
./bin/tests/system/win32/gencheck.vcxproj.in X 2016,2017,2018,2019,2020,2021,2022
./bin/tests/system/win32/gencheck.vcxproj.user X 2016,2018,2019,2020,2021,2022
./bin/tests/system/win32/keycreate.dsp.in X 2016,2018,2019,2020,2021,2022
./bin/tests/system/win32/keycreate.dsw X 2016,2018,2019,2020,2021,2022
./bin/tests/system/win32/keycreate.mak.in X 2016,2018,2019,2020,2021,2022
./bin/tests/system/win32/keycreate.vcxproj.filters.in X 2016,2018,2019,2020,2021,2022
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./bin/tests/system/win32/keycreate.vcxproj.user X 2016,2018,2019,2020,2021,2022
./bin/tests/system/win32/keydelete.dsp.in X 2016,2018,2019,2020,2021,2022
./bin/tests/system/win32/keydelete.dsw X 2016,2018,2019,2020,2021,2022
./bin/tests/system/win32/keydelete.mak.in X 2016,2018,2019,2020,2021,2022
./bin/tests/system/win32/keydelete.vcxproj.filters.in X 2016,2018,2019,2020,2021,2022
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./bin/tests/system/win32/keydelete.vcxproj.user X 2016,2018,2019,2020,2021,2022
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./bin/tests/system/win32/lwtest.dsw X 2016,2018,2019,2020,2021,2022
./bin/tests/system/win32/lwtest.mak.in X 2016,2018,2019,2020,2021,2022
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./bin/tests/system/win32/lwtest.vcxproj.user X 2016,2018,2019,2020,2021,2022
./bin/tests/system/win32/pipequeries.dsp.in X 2016,2018,2019,2020,2021,2022
./bin/tests/system/win32/pipequeries.dsw X 2016,2018,2019,2020,2021,2022
./bin/tests/system/win32/pipequeries.mak.in X 2016,2018,2019,2020,2021,2022
./bin/tests/system/win32/pipequeries.vcxproj.filters.in X 2016,2018,2019,2020,2021,2022
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./bin/tests/system/win32/pipequeries.vcxproj.user X 2016,2018,2019,2020,2021,2022
./bin/tests/system/xfer/ans5/badkeydata X 2011,2018,2019,2020,2021,2022
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./bin/tests/system/xfer/ans5/wrongkey X 2011,2018,2019,2020,2021,2022
./bin/tests/system/xfer/clean.sh SH
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./bin/tests/system/xfer/ns1/axfr-too-big.db ZONE 2016,2018,2019,2020,2021,2022
./bin/tests/system/xfer/ns1/ixfr-too-big.db.in ZONE 2016,2018,2019,2020,2021,2022
./bin/tests/system/xfer/ns1/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/xfer/ns1/root.db ZONE 2000,2001,2004,2007,2016,2018,2019,2020,2021,2022
./bin/tests/system/xfer/ns2/mapped.db.in ZONE 2016,2018,2019,2020,2021,2022
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./bin/tests/system/xfer/ns2/slave.db.in ZONE 2013,2016,2018,2019,2020,2021,2022
./bin/tests/system/xfer/ns3/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/xfer/ns4/named.conf.base CONF-C 2011,2013,2016,2018,2019,2020,2021,2022
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./bin/tests/system/xfer/ns6/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/xfer/ns7/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/xfer/ns8/example.db ZONE 2015,2016,2018,2019,2020,2021,2022
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./bin/tests/system/xfer/setup.sh SH
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./bin/tests/system/xferquota/clean.sh SH 2000,2001,2004,2007,2012,2014,2015,2016,2018,2019,2020,2021,2022
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./bin/tests/system/xferquota/setup.pl PERL 2000,2001,2004,2007,2011,2012,2016,2018,2019,2020,2021,2022
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./bin/tests/system/xferquota/tests.sh SH 2000,2001,2004,2007,2012,2016,2018,2019,2020,2021,2022
./bin/tests/system/zero/ans5/ans.pl PERL 2016,2018,2019,2020,2021,2022
./bin/tests/system/zero/clean.sh SH 2013,2014,2015,2016,2018,2019,2020,2021,2022
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./bin/tests/system/zero/ns2/named.conf.in CONF-C 2018,2019,2020,2021,2022
./bin/tests/system/zero/ns2/tld.db ZONE 2016,2018,2019,2020,2021,2022
./bin/tests/system/zero/ns3/named.conf.in CONF-C 2018,2019,2020,2021,2022
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./bin/tests/system/zero/ns4/named.conf.in CONF-C 2018,2019,2020,2021,2022
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./bin/tests/system/zero/setup.sh SH 2013,2014,2016,2018,2019,2020,2021,2022
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./bin/tests/system/zonechecks/a.db ZONE 2004,2007,2016,2018,2019,2020,2021,2022
./bin/tests/system/zonechecks/aaaa.db ZONE 2004,2007,2016,2018,2019,2020,2021,2022
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./bin/tests/system/zonechecks/clean.sh SH 2004,2007,2012,2014,2015,2016,2018,2019,2020,2021,2022

./bin/tests/system/zonechecks/cname.db ZONE 2004,2007,2016,2018,2019,2020,2021,2022
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./bin/tests/system/zonechecks/noaddress.db ZONE 2004,2007,2016,2018,2019,2020,2021,2022
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./bin/tests/system/zonechecks/prereq.sh SH 2014,2016,2018,2019,2020,2021,2022
./bin/tests/system/zonechecks/setup.sh SH 2012,2013,2014,2015,2016,2018,2019,2020,2021,2022
./bin/tests/system/zonechecks/tests.sh SH 2004,2007,2009,2012,2013,2014,2015,2016,2018,2019,2020,2021,2022
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./bin/tests/testdata/wire/wire_test.data2 X 1999,2000,2001,2018,2019,2020,2021,2022
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./win32utils/Configure PERL 2013,2014,2015,2016,2017,2018,2019,2020,2021,2022
./win32utils/GeoIP.diff X 2013,2018,2019,2020,2021,2022
./win32utils/bind9.sln.in X 2013,2014,2015,2016,2017,2018,2019,2020,2021,2022
./win32utils/index.html HTML 2006,2007,2008,2012,2013,2014,2015,2016,2018,2019,2020,2021,2022
./win32utils/legacy/BINDBuild.dsw.in X
2001,2005,2006,2008,2009,2010,2013,2014,2015,2016,2018,2019,2020,2021,2022
./win32utils/legacy/BuildAll.bat.in BAT
2001,2002,2004,2005,2006,2007,2008,2009,2010,2013,2014,2015,2016,2018,2019,2020,2021,2022
./win32utils/legacy/BuildPost.bat.in BAT 2005,2006,2013,2014,2016,2018,2019,2020,2021,2022
./win32utils/legacy/BuildSetup.bat.in BAT
2001,2002,2004,2005,2006,2007,2008,2009,2010,2012,2013,2014,2015,2016,2018,2019,2020,2021,2022
./win32utils/legacy/makedefs.pl PERL 2001,2004,2007,2009,2012,2013,2014,2016,2018,2019,2020,2021,2022
./win32utils/legacy/win32-build.txt TXT.BRIEF 2001,2002,2004,2005,2008,2009,2012,2013,2014,2016,2018,2019
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-->

<!-- Generate ISC copyright comments from Docbook copyright metadata. -->

<xsl:stylesheet version="1.0"
 xmlns:xsl="http://www.w3.org/1999/XSL/Transform"
 xmlns:xi="http://www.w3.org/2001/XInclude"
 xmlns:db="http://docbook.org/ns/docbook">

 <xsl:template name="isc.copyright.format">
  <xsl:param name="text"/>
  <xsl:value-of select="$isc.copyright.leader"/>
  <xsl:value-of select="normalize-space(substring-before($text, '
'))"/>
  <xsl:text>
</xsl:text>
  <xsl:variable name="rest" select="substring-after($text, '
')"/>
  <xsl:if test="translate($rest, '	 ', '')">
    <xsl:call-template name="isc.copyright.format">
     <xsl:with-param name="text" select="$rest"/>
    </xsl:call-template>
  </xsl:if>
 </xsl:template>

 <xsl:variable name="isc.copyright.text">
  <xsl:text>
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```
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  </xsl:text>
 </xsl:variable>

 <xsl:variable name="isc.copyright">
  <xsl:call-template name="isc.copyright.format">
   <xsl:with-param name="text">
    <xsl:for-each select="db:book/db:info/db:copyright | db:refentry/db:docinfo/db:copyright">
  <xsl:text>Copyright (C) </xsl:text>
  <xsl:call-template name="copyright.years">
   <xsl:with-param name="years" select="db:year"/>
  </xsl:call-template>
  <xsl:text> </xsl:text>
  <xsl:value-of select="db:holder"/>
      <xsl:value-of select="$isc.copyright.breakline"/>
  <xsl:text>&#10;</xsl:text>
 </xsl:for-each>
 <xsl:value-of
 select="$isc.copyright.text"/>
   </xsl:with-param>
  </xsl:call-template>
 </xsl:variable>
</xsl:stylesheet>

<!--
 - Local variables:
 - mode: sgml
 - End:
-->
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1.195 protobuf 1.28.1

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1.196 readline 4.1

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1.198 expat 2.5.0

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1.200 mtd-utils 1.2.1

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1.201 u-boot 2010.03

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1.202 ncurses 6.4

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This package is used for testing builds of ncurses.

Current ncurses maintainer: Thomas Dickey <dickey@invisible-island.net>

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-- vile: txtmode file-encoding=utf-8
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On Debian systems, the complete text of the GNU General
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-- vile: txtmode file-encoding=utf-8

1.203 newlib 1.12.0

1.203.1 Available under license :

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========

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1.204 setserial 2.17

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1.205 sysv-init 2.86-1

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The of the start-stop-daemon

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* in C (faster - it is executed many times during system startup).
*
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1.206 sysv-init 2.88

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The of the start-stop-daemon

* A rewrite
 of the original Debian's start-stop-daemon Perl script
* in C (faster - it is executed many times during system startup).
*
* Written by Marek Michalkiewicz <marekm@i17linuxb.ists.pwr.wroc.pl>,
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1.207 sysklogd 1.5.1

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Key Dates
---
* August 3, 2017

Update the TianoCore Contribution Agreement from Version 1.0
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Version 1.0 covers source code files. Version 1.1 is a
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References:

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https://lists.01.org/pipermail/edk2-devel/2017-March/008654.html

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==========

= Code Contributions =

==========

To make a contribution to a TianoCore project, follow these steps.

1. Create a change description in the format specified below to
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2. Your commit message must include your "Signed-off-by" signature,
and "Contributed-under" message.
3. Your "Contributed-under" message explicitly states that the
contribution is made under the terms of the specified
contribution agreement. Your "Contributed-under" message
must include the name of contribution agreement and version.

For example: Contributed-under: TianoCore Contribution Agreement 1.1
The "TianoCore Contribution Agreement" is included below in
this document.

4. Submit your code to the TianoCore project using the process
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==========
= Change Description / Commit Message / Patch Email =
==========

Your change description should use the standard format for a
commit message, and must include
your "Signed-off-by" signature
and the "Contributed-under" message.

== Sample Change Description / Commit Message =

=== Start of sample patch email message ===

From: Contributor Name <contributor@example.com>
Subject: [Repository/Branch PATCH] Module: Brief-single-line-summary

Full-commit-message

Contributed-under: TianoCore Contribution Agreement 1.1
Signed-off-by: Contributor Name <contributor@example.com>

An extra message for the patch email which will not be considered part
of the commit message can be added here.

Patch content inline or attached

=== End of sample patch email message ===

=== Notes for sample patch email ===

* The first line of commit message is taken from the email's subject
  line following [Repository/Branch PATCH]. The remaining portion of the
  commit message is the email's content until the '---' line.
* git format-patch is one way to create this format

=== Definitions
for sample patch email ===

* "Repository" is the identifier of the repository the patch applies.
  This identifier should only be provided for repositories other than
  'edk2'. For example 'edk2-BuildSpecification' or 'staging'.
* "Branch" is the identifier of the branch the patch applies. This
  identifier should only be provided for branches other than 'edk2/master'.
  For example 'edk2/UDK2015', 'edk2-BuildSpecification/release/1.27', or
  'staging/edk2-test'.
* "Module" is a short identifier for the affected code or documentation. For
  example 'MdePkg', 'MdeModulePkg/UsbBusDxe', 'Introduction', or
  'EDK II INF File Format'.
* "Brief-single-line-summary" is a short summary of the change.
* The entire first line should be less than ~70 characters.
* "Full-commit-message" a verbose multiple line comment describing
  the change. Each line should be less than ~70 characters.
* "Contributed-under" explicitly states that the
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1. Create a change description in the format specified below to
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2. Your commit message must include your "Signed-off-by" signature,
and "Contributed-under"
message.
3. Your "Contributed-under" message explicitly states that the
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==========
= Change Description / Commit Message / Patch Email =
==========

Your change description should use the standard format for a
commit message, and must include your "Signed-off-by" signature
and the "Contributed-under" message.

== Sample Change Description / Commit Message =

=== Start of sample patch email message ===

From: Contributor Name <contributor@example.com>
Subject: [PATCH] CodeModule: Brief-single-line-summary

Full-commit-message

Contributed-under:
TianoCore Contribution Agreement 1.0
Signed-off-by: Contributor Name <contributor@example.com>

An extra message for the patch email which will not be considered part
of the commit message can be added here.

Patch content inline or attached

=== End of sample patch email message ===

=== Notes for sample patch email ===

* The first line of commit message is taken from the email's subject
  line following [PATCH]. The remaining portion of the commit message
  is the email's content until the '---' line.
* git format-patch is one way to create this format

=== Definitions for sample patch email ===

* "CodeModule" is a short idenfier for the affected code. For
  example MdePkg, or MdeModulePkg UsbBusDxe.
* "Brief-single-line-summary" is a short summary of the change.
* The entire first line should be less than ~70 characters.
* "Full-commit-message" a verbose multiple line comment describing
  the change.
Each line should be less than ~70 characters.
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1.213 quota 4.02

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that what they have is not the original version, so that the original
author's reputation will not be affected by problems that might be
introduced by others.

Finally, software patents pose a constant threat to the existence
of
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restrictive license from a patent holder. Therefore, we insist that
any patent license obtained for a version of the library must be
consistent with the full freedom of use specified in this license.

Most GNU software, including some libraries, is covered by the
ordinary GNU General Public License. This license, the GNU Lesser
General Public License, applies to certain designated libraries, and
is quite different from the ordinary General Public License. We use
this license for certain libraries in order to permit linking those
libraries into non-free programs.

When a program is linked with a library, whether statically or using
a shared library, the combination of the two is legally speaking a
combined work, a derivative of the original library. The ordinary
General Public License therefore permits such linking only if the
entire combination
fits its criteria of freedom. The Lesser General
Public License permits more lax criteria for linking other code with
the library.

We call this license the "Lesser" General Public License because it

does Less to protect the user's freedom than the ordinary General Public License. It also provides other free software developers Less of an advantage over competing non-free programs. These disadvantages are the reason we use the ordinary General Public License for many libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we
use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

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0. This License Agreement applies to any software library or other program which contains a notice placed by the copyright holder or other authorized party saying it may be distributed under the terms of this Lesser General Public License (also called "this License"). Each licensee is addressed as "you".

A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work

which has been distributed under these terms. A "work based on the Library" means either the Library or any derivative work under copyright law: that is to say, a work containing the Library or a portion of it, either verbatim or with modifications and/or translated straightforwardly into another language. (Hereinafter, translation is included without
limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

1. You may copy and distribute verbatim copies of the Library's complete source code as you receive it, in any medium, provided that you conspicuously and appropriately publish
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You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

a) The modified work must itself be a software library.

b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.

c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.

d) If a facility in the modified
Library refers to a function or a
table of data to be supplied by an application program that uses
the facility, other than as an argument passed when the facility
is invoked, then you must make a good faith effort to ensure that,
in the event an application does not supply such function or
table, the facility still operates, and performs whatever part of
its purpose remains meaningful.

(For example, a function in a library to compute square roots has
a purpose that is entirely well-defined independent of the
application. Therefore, Subsection 2d requires that any
application-supplied function or table used by this function must
be optional: if the application does not supply it, the square
root function must still compute square roots.)

These requirements apply to the modified work as a whole. If
identifiable sections of that work are not derived from the Library,
and can be reasonably considered independent and separate works in
themselves,
then this License, and its terms, do not apply to those
sections when you distribute them as separate works. But when you
distribute the same sections as part of a whole which is a work based
on the Library, the distribution of the whole must be on the terms of
this License, whose permissions for other licensees extend to the
entire whole, and thus to each and every part regardless of who wrote
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Thus, it is not the intent of this section to claim rights or contest
your rights to work written entirely by you; rather, the intent is to
exercise the right to control the distribution of derivative or
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In addition, mere aggregation of another work not based on the Library
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3. You may opt to apply the terms of the ordinary GNU General Public
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that version instead if you wish.) Do not make any other change in
these notices.

Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy.

This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be
distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered
by this License.
Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any
executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

a) Accompany the work with the complete corresponding machine-readable
source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the
user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

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a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the Sections above.

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Preamble

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This license, the Library General Public License, applies to some specially designated Free Software Foundation software, and to any other libraries whose authors decide to use it. You can use it for your libraries, too.

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To protect your rights, we need to make restrictions that forbid anyone to deny you these rights or to ask you to surrender the rights. These restrictions translate to certain responsibilities for you if you distribute copies of the library, or if you modify it.

For example, if you distribute copies of the library, whether gratis

or for a fee, you must give the recipients all the rights that we gave you. You must make sure that they, too, receive or can get the source code. If you link a program with the library, you must provide complete object files to the recipients so that they can relink them with the library, after making changes to the library and recompiling it. And you must show them these terms so they know their rights.

Our method of protecting your rights has two steps: (1) copyright the library, and (2) offer you this license which gives you legal permission to copy, distribute and/or modify the library.

Also, for each distributor's protection, we want to make certain that everyone understands that there is no warranty for this free library. If the library is modified by someone else and passed on, we want its recipients to know that what they have is not the original version, so that any problems introduced by others will not reflect on the original authors' reputations.

Finally, any free program is threatened constantly by software patents. We wish to avoid the danger that companies distributing free software will individually obtain patent licenses, thus in effect transforming the program into proprietary software. To prevent this, we have made it clear that any patent must be licensed for everyone's free use or not licensed at all.

Most GNU software, including some libraries, is covered by the ordinary GNU General Public License, which was designed for utility programs. This license, the GNU Library General Public License, applies to certain designated libraries. This license is quite different from the ordinary one; be sure to read it in full, and don't assume that anything in it is the same as in the ordinary license.

The reason we have a separate public license for some libraries is that they blur the distinction we usually make between modifying or adding to a program and simply using it. Linking a program with a library, without changing the library, is in some sense simply using the library, and is analogous to running a utility program or application program. However, in a textual and legal sense, the linked executable is a combined work, a derivative of the original library, and the ordinary General Public License treats it as such.

Because of this blurred distinction, using the ordinary General Public License for libraries did not effectively promote software sharing, because most developers did not use the libraries. We concluded that weaker conditions might promote sharing better.

However, unrestricted linking of non-free programs would deprive the users of those programs of all benefit from the free status of the libraries themselves. This Library General Public License is intended to permit developers of non-free programs to use free libraries, while preserving your freedom as a user of such programs to change the free libraries that are incorporated in them. (We have not seen how to achieve this as regards changes in header files, but we have achieved it as regards changes in the actual functions of the Library.) The hope is that this will lead to faster development of free libraries.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, while the latter only works together with the library.

Note that it is possible for a library to be covered by the ordinary General Public License rather than by this special one.

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A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

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"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent
of the use of the Library in a tool for
writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

1. You may copy and distribute verbatim copies of the Library's complete source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and distribute a copy of this License along with the Library.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

a) The modified work must
itself be a software library.

b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.

c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.

d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this

function must
be optional: if the application does not supply it, the square
root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition,
mere aggregation of another work not based on the Library
with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices.

Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy.

This option is useful when you wish to copy part of the code of
the
Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a

medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also compile or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

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a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

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(This file is under construction.) -*- text -*-

If you've contributed to gas and your name isn't listed here, it is
not meant as a slight. I just don't know about it. Email me,
nickc@redhat.com and I'll correct the situation.

This file will eventually be deleted: The general info will go into
the documentation, and info on specific files will go into an AUTHORS
file, as requested by the FSF.

++++++++++++++++

Dean Elsner wrote the original gas for vax. [more details?]

Jay Fenlason maintained gas for a while, adding support for
gdb-specific debug information and the 68k series machines, most of
the preprocessing pass, and extensive changes in messages.c,
input-file.c, write.c.

K. Richard Pixley maintained gas for a while, adding various
enhancements and many bug fixes, including merging support for several
processors, breaking gas up to handle multiple object file format
backends (including heavy rewrite, testing, an integration of the coff
and b.out backends), adding configuration
including heavy testing and
verification of cross assemblers and file splits and renaming,
converted gas to strictly ansi C including full prototypes, added
support for m680[34]0 & cpu32, considerable work on i960 including a
coff port (including considerable amounts of reverse engineering), a
sparc opcode file rewrite, decstation, rs6000, and hp300hpux host
ports, updated "know" assertions and made them work, much other
reorganization, cleanup, and lint.

Ken Raeburn wrote the high-level BFD interface code to replace most of
the code in format-specific I/O modules.

The original Vax-VMS support was contributed by David L. Kashtan.
Eric Youngdale and Pat Rankin have done much work with it since.

The Intel 80386 machine description was written by Eliot Dresselhaus.

Minh Tran-Le at IntelliCorp contributed some AIX 386 support.

The Motorola 88k machine description was contributed by Devon Bowen of
Buffalo University and Torbjorn Granlund of the Swedish Institute of
Computer Science.

Keith
Knowles at the Open Software Foundation wrote the original MIPS
back end (tc-mips.c, tc-mips.h), and contributed Rose format support
that hasn't been merged in yet. Ralph Campbell worked with the MIPS
code to support a.out format.

Support for the Zilog Z8k and Hitachi H8/300, H8/500 and SH processors
(tc-z8k, tc-h8300, tc-h8500, tc-sh), and IEEE 695 object file format
(obj-ieee), was written by Steve Chamberlain of Cygnus Solutions.
Steve also modified the COFF back end (obj-coffbfd) to use BFD for
some low-level operations, for use with the Hitachi, 29k and Zilog
targets.

John Gilmore built the AMD 29000 support, added .include support, and
simplified the configuration of which versions accept which
pseudo-ops. He updated the 68k machine description so that Motorola's
opcodes always produced fixed-size instructions (e.g. jsr), while
synthetic instructions remained shrinkable (jbsr). John fixed many
bugs, including true tested cross-compilation support, and one bug in
relaxation

that took a week and required the proverbial one-bit fix.

Ian Lance Taylor of Cygnus Solutions merged the Motorola and MIT syntaxes for the 68k, completed support for some COFF targets (68k, i386 SVR3, and SCO Unix), wrote the ECOFF support based on Michael Meissner's mips-tfile program, wrote the PowerPC and RS/6000 support, and made a few other minor patches. He handled the binutils releases for versions 2.7 through 2.9.

David Edelsohn contributed fixes for the PowerPC and AIX support.

Steve Chamberlain made gas able to generate listings.

Support for the HP9000/300 was contributed by Glenn Engel of HP.

Support for ELF format files has been worked on by Mark Eichin of Cygnus Solutions (original, incomplete implementation), Pete Hoogenboom at the University of Utah (HPPA mainly), Michael Meissner of the Open Software Foundation (i386 mainly), and Ken Raeburn of Cygnus Solutions (sparc, initial 64-bit support).

Several engineers at Cygnus Solutions have also provided many small
bug fixes and configuration enhancements.

The initial Alpha support was contributed by Carnegie-Mellon University. Additional work was done by Ken Raeburn of Cygnus Solutions. Richard Henderson then rewrote much of the Alpha support.

Ian Dall updated the support code for the National Semiconductor 32000 series, and added support for Mach 3 and NetBSD running on the PC532.

Klaus Kaempf ported the assembler and the binutils to openVMS/Alpha.

Steve Haworth contributed the support for the Texas Instruction c30 (tms320c30).

H.J. Lu has contributed many patches and much testing.

Alan Modra reworked much of the i386 backend, improving the error checking, updating the code, and improving the 16 bit support, using patches from the work of Martynas Kunigelis and H.J. Lu.

Many others have contributed large or small bugfixes and enhancements. If you've contributed significant work and are not mentioned on this list, and want to be, let us know. Some of the history has been lost; we aren't
intentionally leaving anyone out.

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1.216 lvm2 1.02.149

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If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

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*
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1.222 selinux 3.3

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1.223 makedumpfile 1.6.4

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1.224 grpc 1.46.7

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1.228 pciutils 0.0.0

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1.235 gzip 1.12

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1.242 util-linux 2.32.1

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#!/usr/bin/env bash
# MIT licenses will each have a unique MD5 sum since they contain a unique copyright.
# This script will read the license file into memory, strip out the copyright, and then
# generate an MD5 that is not unique and can be matched against a known MIT MD5 sum.
set -e

calculate_md5_sum() {
 local FILE="$1"
```

```
 # Read the contents of the file into a variable
 local raw_license_text=$(<"$FILE")

 # Convert to lowercase
 local lowercase_license_text="${raw_license_text,,}"

 # Remove anything before the beginning of the license
 local stripped_license_text=$(awk '/permission is hereby granted,/{p=1} p' <<< "$lowercase_license_text")

 # Replace line breaks (Windows or Linux) with a single space
 local replaced_linebreaks=$(tr '\r\n' ' ' <<< "$stripped_license_text")

 # Replace multiple spaces with a single space
 local normalized_license_text=$(tr -s ' ' <<< "$replaced_linebreaks")

 # Strip away any non-printable, non-whitespace characters
 local clean_unprintable_license_text=$(tr
 -cd '[:print:][:space:]' <<< "$normalized_license_text")

 # Remove punctuation and special characters
 local clean_license_text=$(echo "$clean_unprintable_license_text" | sed 's/[^a-zA-Z ]//g')

 # Calculate the MD5 sum of the cleaned license text
 local MD5SUM=$(echo -n "$clean_license_text" | md5sum | awk '{print $1}')

 # Output the MD5 sum
 echo "$MD5SUM"
}

# Check if the FILE argument is provided
if [ -z "$1" ]; then
 echo "Please provide a FILE as an argument."
 exit 1
fi

# Invoke the function with the provided FILE argument
calculate_md5_sum "$1"
```

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WEV @@ WEV[B "1

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1.246 e2fsprogs 1.45.6

1.246.1 Available under license :

This package was added to the e2fsprogs debian source package by
Theodore Ts'o <tytso@mit.edu> on Sat Mar 15 15:33:37 EST 2003

It is part of the main e2fsprogs distribution, which can be found at:

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This is the Debian GNU/Linux prepackaged version of the static EXT2
file system consistency checker (e2fsck.static). The EXT2 utilities
were written by Theodore Ts'o <tytso@mit.edu> and Remy Card
<card@masi.ibp.fr>.

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```
#
# This is a Makefile stub which handles the creation of BSD shared
# libraries.
#
# In order to use this stub, the following makefile variables must be defined.
#
# BSDLIB_VERSION = 1.0
# BSDLIB_IMAGE = libce
# BSDLIB_MYDIR = et
# BSDLIB_INSTALL_DIR = $(SHLIBDIR)
#

all:: image

real-subdirs:: Makefile
 @echo " MKDIR pic"
 @mkdir -p pic

BSD_LIB = $(BSDLIB_IMAGE).so.$(BSDLIB_VERSION)
BSDLIB_PIC_FLAG = -fpic

image:  $(BSD_LIB)

$(BSD_LIB): $(OBJS)
 (cd pic; ld -Bshareable -o $(BSD_LIB) $(LDFLAGS_SHLIB) $(OBJS))
 $(MV) pic/$(BSD_LIB) .
 $(RM) -f ../$(BSD_LIB)
 (cd ..; $(LN) $(LINK_BUILD_FLAGS) \
  `echo $(my_dir) | sed -e 's;lib/;;'`/$(BSD_LIB) $(BSD_LIB))

install-shlibs install:: $(BSD_LIB)
 @echo " INSTALL_PROGRAM $(BSDLIB_INSTALL_DIR)/$(BSD_LIB)"
 @$(INSTALL_PROGRAM) $(BSD_LIB) \
  $(DESTDIR)$(BSDLIB_INSTALL_DIR)/$(BSD_LIB)
```

```
 @-$(LDCONFIG)

install-strip: install

install-shlibs-strip:: install-shlibs

uninstall-shlibs uninstall::
 $(RM) -f $(DESTDIR)$(BSDLIB_INSTALL_DIR)/$(BSD_LIB)

clean::
 $(RM)
 -rf pic
 $(RM) -f $(BSD_LIB)
 $(RM) -f ../$(BSD_LIB)
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This is the Debian GNU/Linux prepackaged version of the translation
files of the EXT2 file system utilities.  The EXT2 utilities were
written by Theodore Ts'o <tytso@mit.edu> and Remy Card
<card@masi.ibp.fr>.

Sources were obtained from http://sourceforge.net/projects/e2fsprogs

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This package was added to the e2fsprogs debian source package by
Theodore Ts'o <tytso@mit.edu> on Fri Dec 14 22:24:35 EST 2007

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Index: tdbsa/tdb.c
===
--- tdbsa.orig/tdb.c
+++ tdbsa/tdb.c
@@ -4,11 +4,11 @@ Rev: 23371
Last Changed Date: 2007-06-06 20:14:06 -0400 (Wed, 06 Jun 2007)
*/
 /*
-   Unix SMB/CIFS implementation.
+   trivial database library - standalone version

-   trivial database library - private includes
-
-   Copyright (C) Andrew Tridgell   2005
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Theodore Ts'o
23-June-2007

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The reason we have a separate public license for some libraries is that
they blur the distinction we usually make between modifying or adding to a
program and simply using it. Linking a program with a library, without
changing the library, is
in some sense simply using the library, and is
analogous to running a utility program or application program. However, in
a textual and legal sense, the linked executable is a combined work, a
derivative of the original library, and the ordinary General Public License
treats it as such.

Because of this blurred distinction, using the ordinary General
Public License for libraries did not effectively promote software
sharing, because most developers did not use the libraries. We
concluded that weaker conditions might promote sharing better.

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header files, but we have achieved it as regards
changes in the actual functions of the Library.) The hope is that this will lead to faster development of free libraries.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, while the latter only works together with the library.

Note that it is possible for a library to be covered by the ordinary General Public License rather than by this special one.

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table, the facility still operates, and performs whatever
part of
its purpose remains meaningful.

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a purpose that is entirely well-defined independent of the
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or if the work is itself a library. The
threshold for this to be true is not precisely defined by law.

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That's all there is to it!
This is the Debian GNU/Linux prepackaged version of the EXT2 file
system utilities (e2fsck, mke2fs, etc.). The EXT2 utilities were
written by Theodore Ts'o <tytso@mit.edu> and Remy Card <card@masi.ibp.fr>.

Sources were obtained from http://sourceforge.net/projects/e2fsprogs

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This package was added to the e2fsprogs debian source package by
Theodore Ts'o <tytso@mit.edu> on Sat Mar 15 15:33:37 EST 2003

It is part of the main e2fsprogs distribution, which can be found at:

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This is the Debian GNU/Linux prepackaged version of the ss
command-line interface parsing library. It is currently
distributed together with the EXT2 file system utilities, which are
otherwise packaged as "e2fsprogs".

This package was put together by Yann Dirson <dirson@debian.org>,
from sources obtained from a mirror of:
tsx-11.mit.edu:/pub/linux/packages/ext2fs/

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This is the Debian GNU/Linux prepackaged version of the Common Error
Description library. It is currently distributed together with the EXT2 file
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1.247 cracklib 2.9.0

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modification follow. Pay close attention to the difference between a
"work based on the library" and a "work that uses the library". The
former contains code derived from the library, whereas the latter must
be combined with the library
in order to run.
^L
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"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation
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c) You must cause the whole of the work to be licensed at no charge to all third parties under
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(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

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can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

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of the ordinary GNU General Public
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that they refer to the ordinary GNU General Public License, version 2,
instead of to this License. (If a newer version than version 2 of the
ordinary GNU General Public License has appeared, then you can specify
that version instead if you wish.) Do not make any other change in
these notices.
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that copy, so the ordinary GNU General Public License applies to all
subsequent copies and derivative works made from that copy.

This option is useful when you wish to copy part of the code of
the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or
derivative of it, under Section 2) in object code or executable form
under the terms of Sections 1 and 2 above provided that you accompany
it with the
complete corresponding machine-readable source code, which
must be distributed under the terms of Sections 1 and 2 above on a
medium customarily used for software interchange.

If distribution of object code is made by offering access to copy
from a designated place, then offering equivalent access to copy the
source code from the same place satisfies the requirement to
distribute the source code, even though third parties are not
compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the
Library, but is designed to work with the Library by being compiled or
linked with it, is called a "work that uses the Library". Such a
work, in isolation, is not a derivative work of the Library, and
therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library
creates an executable that is a derivative of the Library (because it
contains portions of the Library), rather than a
"work that uses the
library". The executable is therefore covered by this License.
Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file
that is part of the Library, the object code for the work may be a
derivative work of the Library even though the source code is not.
Whether this is true is especially significant if the work can be

linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute
the object code for the work under the terms of Section 6.
Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.
^L
6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2)

will operate properly with a modified version of the library, if
the user installs one, as long as the modified version is
interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for at
least three years, to give the same user the materials
specified in Subsection 6a, above, for a charge no more
than the cost of performing this distribution.

d) If distribution of the work is made by offering access to copy
from a designated place, offer equivalent access to copy the above
specified materials from the same place.

e) Verify that the user has already received a copy of these
materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the
Library" must include any data and utility programs needed for
reproducing the executable from it. However, as a special exception,
the materials to be distributed need not include anything
that is
normally distributed (in either source or binary form) with the major
components (compiler, kernel, and so on) of the operating system on
which the executable runs, unless that component itself accompanies
the executable.

It may happen that this requirement contradicts the license
restrictions of other proprietary libraries that do not normally
accompany the operating system. Such a contradiction means you cannot
use both them and the Library together in an executable that you
distribute.
^L
7. You may place library facilities that are a work based on the
Library side-by-side in a single library together with other library
facilities not covered by this License, and distribute such a combined
library, provided that the separate distribution of the work based on
the Library and of the other library facilities is otherwise
permitted, and provided that you do these two things:

a) Accompany the combined library with a copy of the same work
based on the Library, uncombined
with any other library
facilities. This must be distributed under the terms of the
Sections above.

b) Give prominent notice with the combined library of the fact
that part of it is a work based on the Library, and explaining

where to find the accompanying uncombined form of the same work.

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^L

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file to most
effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

<one line to give the library's name and a brief idea of what it does.>
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License along with this library; if not, write to the Free Software
Foundation, Inc., 51 Franklin Street, Fifth Floor,
Boston, MA 02110-1301 USA

Also add information on how to contact you by electronic and paper
mail.

You should also get your employer (if you work as a programmer) or
your
school, if any, to sign a "copyright disclaimer" for the library, if
necessary. Here is a sample; alter the names:

Yoyodyne, Inc., hereby disclaims all copyright interest in the
library `Frob' (a library for tweaking knobs) written by James
Random Hacker.

<signature of Ty Coon>, 1 April 1990
Ty Coon, President of Vice

That's all there is to it!

EFFECTIVE OCT 2008, LICENSE IS BEING CHANGED TO LGPL-2.1 (though not reflected
in released code until Nov 2009 - slow release cycle...)

Discussion thread from mailing list archive, with approval from everyone actively
involved or holding original licensing rights included.

[Cracklib-devel] cracklib license
From: Mike Frysinger <vapier@ge...> - 2007-10-02 01:16

Attachments: Message as HTML
looks like 2.8.11 is out and marked as "GPL-2" ... releasing libraries unde=
r=20
GPL-2 is not desirable at all ... this is why the LGPL-2.1 exists
=2Dmike

Re: [Cracklib-devel] cracklib license

From: Neulinger, Nathan <nneul@um...> - 2007-10-02 01:18
I understand that, and you're welcome to bring it up with Alec directly
and see if he wants to relicense his code as LGPL... but at this point,
it was enough to just get it consistent and documented as to what it was
released under. This wasn't actually a license change, just a
clarification of the licensing that was already in place.=20

-- Nathan
=20

Nathan Neulinger EMail: nneul@um...
University of Missouri - Rolla Phone: (573) 341-6679
UMR Information Technology Fax: (573) 341-4216

> -----Original Message-----
> From: cracklib-devel-bounces@li...
> [mailto:cracklib-devel-bounces@li...] On Behalf Of
> Mike Frysinger
> Sent: Monday, October 01, 2007 8:15 PM
> To: cracklib-devel@li...
> Subject: [Cracklib-devel] cracklib license
>=20
> looks like 2.8.11 is out and marked as "GPL-2" ... releasing
> libraries under
> GPL-2 is not desirable at all ... this is why the LGPL-2.1 exists
> -mike

Re: [Cracklib-devel] cracklib license
From: Mike Frysinger <vapier@ge...> - 2007-10-02 01:33

Attachments: Message as HTML
On Monday 01 October 2007, Neulinger, Nathan
wrote:
> I understand that, and you're welcome to bring it up with Alec directly
> and see if he wants to relicense his code as LGPL... but at this point,
> it was enough to just get it consistent and documented as to what it was
> released under. This wasn't actually a license change, just a
> clarification of the licensing that was already in place.

the original license (before moving to sourceforge -- aka, 2.7) was not=20
GPL-2 ... it was a modified artistic license ... i didnt notice the license=
=20
change until it was mentioned in the latest notes.

unlike the old license, GPL-2 prevents people from using cracklib unless th=
eir=20
applications are also GPL-2 which imo is just wrong. it isnt the place of =

a=20
library to dictact to application writes what license they should be using.=
=20
thus LGPL-2.1 enters to fill this void.
=2Dmike

Re: [Cracklib-devel]
cracklib license
From: Neulinger, Nathan <nneul@um...> - 2007-10-02 01:46
Seems like the ideal thing here would be for you and the other distro
maintainers to get together with Alec in a conversation and come to a
decision as to what licensing scheme y'all want. I haven't really done
much other than cleaning up the packaging and patches and a small bit of
additional code, so whatever licensing y'all come up with is fine by me.

-- Nathan
=20

Nathan Neulinger EMail: nneul@um...
University of Missouri - Rolla Phone: (573) 341-6679
UMR Information Technology Fax: (573) 341-4216

> -----Original Message-----
> From: cracklib-devel-bounces@li...
> [mailto:cracklib-devel-bounces@li...] On Behalf Of
> Mike Frysinger
> Sent: Monday, October 01, 2007 8:33 PM
> To: Neulinger, Nathan
> Cc: cracklib-devel@li...; Alec Muffett
> > Subject: Re: [Cracklib-devel] cracklib license
>=20
> On Monday 01 October 2007, Neulinger, Nathan wrote:
> > I understand that, and you're welcome to bring it up with Alec
> directly
> > and see if he wants to relicense his code as LGPL... but at this
> point,
> > it was enough to just get it consistent and documented as to what
> it was
> > released under. This wasn't actually a license change, just a
> > clarification of the licensing that was already in place.
>=20
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> not
> GPL-2 ... it was a modified artistic license ... i didnt notice the
> license
> change until it was mentioned in the latest notes.
>=20

> unlike the old license, GPL-2 prevents people from using cracklib
> unless their
> applications are also GPL-2 which imo is just wrong. it isnt the
> place of a
> library
to dictact to application writes what license they should
> be using.
> thus LGPL-2.1 enters to fill this void.
> -mike

Re: [Cracklib-devel] cracklib license
From: Alec Muffett <alecm@cr...> - 2007-10-02 08:57
> Seems like the ideal thing here would be for you and the other distro
> maintainers to get together with Alec in a conversation and come to a
> decision as to what licensing scheme y'all want. I haven't really done
> much other than cleaning up the packaging and patches and a small
> bit of
> additional code, so whatever licensing y'all come up with is fine
> by me.

I am sympathetic. Guys, what do you reckon?

What I am hearing so far is that LGPL makes sense, since it can be
linked with any code, not just GPL...

-a

Re: [Cracklib-devel] cracklib license
From: Devin Reade <gdr@gn...> - 2007-10-02 15:04
I would like to see it under LGPL as well. I
think it is in everyone's
best interests to have as secure systems as possible, and I think tainting
it via GPL will just make it less likely that the library gets used, and
will not usually cause companies/developers to GPL the dependent code
(where it is not already GPL).

I like GPL, I use it when I can, but I don't think that it's the correct
license in this situation.

Devin
--
If it's sinful, it's more fun.

Re: [Cracklib-devel] cracklib license
From: Nalin Dahyabhai <nalin@re...> - 2008-01-28 16:32

On Tue, Oct 02, 2007 at 09:57:31AM +0100, Alec Muffett wrote:
> > Seems like the ideal thing here would be for you and the other distro
> > maintainers to get together with Alec in a conversation and come to a
> > decision as to what licensing scheme y'all want. I haven't really done
> > much other than cleaning up the packaging and patches and a small
> > bit of
> > additional
code, so whatever licensing y'all come up with is fine
> > by me.
>
> I am sympathetic. Guys, what do you reckon?
>
> What I am hearing so far is that LGPL makes sense, since it can be
> linked with any code, not just GPL...

My apologies for not chiming in in anything resembling a reasonable timeframe.

I'd also suggest the LGPL, for the reason you noted above. Alternately, GPLv2 with the option of using the library under a later version of the GPL would permit applications which were released under version 3 of the GPL to use the library, too, which would be sufficient for the packages which are included in Fedora. FWIW, I'd personally lean toward LGPL.

In any case, I thank you both for working on sorting this out.

Cheers,

Nalin

Re: [Cracklib-devel] cracklib license
From: Mike Frysinger <vapier@ge...> - 2008-10-05 21:27

Attachments: Message as HTML

On Monday 28 January 2008, Nalin Dahyabhai wrote:
> On Tue, Oct 02, 2007 at 09:57:31AM +0100, Alec Muffett wrote:
> > > Seems like the ideal thing here would be for you and the other distro
> > > maintainers to get together with Alec in a conversation and come to a
> > > decision as to what licensing scheme y'all want. I haven't really done
> > > much other than cleaning up the packaging and patches and a small
> > > bit of
> > > additional code, so whatever licensing y'all come up with is fine
> > > by me.
> >
> > I am sympathetic. Guys, what do you reckon?
> >

> > What I am hearing so far is that LGPL makes sense, since it can be
> > linked with any code, not just GPL...
>
> My apologies for not chiming in in anything resembling a reasonable
> timeframe.
>
> I'd also suggest the LGPL, for the reason you noted above. Alternately,
> GPLv2 with the option of using
the library under a later version of the
> GPL would permit applications which were released under version 3 of the
> GPL to use the library, too, which would be sufficient for the packages
> which are included in Fedora. FWIW, I'd personally lean toward LGPL.
>
> In any case, I thank you both for working on sorting this out.

looks like everyone is OK with LGPL-2.1 (GNU Lesser license), so can we make
the change now ?
-mike

Re: [Cracklib-devel] cracklib license
From: Alec Muffett <alecm@cr...> - 2008-10-05 23:18
>> In any case, I thank you both for working on sorting this out.
>
> looks like everyone is OK with LGPL-2.1 (GNU Lesser license), so can we make
> the change now ?

yes. go for it. thanks++

-a

Re: [Cracklib-devel] cracklib license
From: Mike Frysinger <vapier@ge...> - 2008-10-25 22:34

Attachments: Message as HTML
On Sunday 05 October
2008, Alec Muffett wrote:
> >> In any case, I thank you both for working on sorting this out.
> >
> > looks like everyone is OK with LGPL-2.1 (GNU Lesser license), so can we
> > make the change now ?
>
> yes. go for it. thanks++

Nathan Neulinger is the only one who can actually make said change ...
-mike

BELOW IS ORIGINAL LICENSING DISCUSSION RE CHANGING TO GPL from Artistic.

CrackLib was originally licensed with a variant of the Artistic license. In the
interests of wider acceptance and more modern licensing, it was switched with
the original author's blessing to GPL v2.

This approval was carried out in email discussions in 2005, and has been reconfirmed
as of 2007-10-01 with the following email from Alec Muffett.

The below email references nneul@umr.edu address, as that is the address
that was used at the time. For any future emails regarding this, please
use nneul@neulinger.org.

From
 alecm@crypticide.com Mon Oct 1 12:26:03 2007
Received: from umr-exproto2.cc.umr.edu ([131.151.0.192]) by UMR-CMAIL1.umr.edu with Microsoft
SMTPSVC(6.0.3790.3959);
  Mon, 1 Oct 2007 12:26:03 -0500
Received: from scansrv2.srv.mst.edu ([131.151.1.114]) by umr-exproto2.cc.umr.edu with Microsoft
SMTPSVC(6.0.3790.3959);
  Mon, 1 Oct 2007 12:26:02 -0500
Received: (qmail 8022 invoked from network); 1 Oct 2007 16:59:55 -0000
Received: from smtp1.srv.mst.edu (131.151.1.43)
 by scanin-ipvs.cc.umr.edu with SMTP; 1 Oct 2007 16:59:55 -0000
Received: from spunkymail-mx8.g.dreamhost.com (mx1.spunky.mail.dreamhost.com [208.97.132.47])
 by smtp1.srv.mst.edu (8.13.1/8.13.1) with ESMTP id l91Gxtpr020623
 for <nneul@umr.edu>; Mon, 1 Oct 2007 11:59:55 -0500
Received: from rutherford.zen.co.uk (rutherford.zen.co.uk [212.23.3.142])
 by spunkymail-mx8.g.dreamhost.com (Postfix) with ESMTP id 2C7734D311
 for <nneul@neulinger.org>; Mon, 1 Oct 2007 09:59:50 -0700 (PDT)
Received: from
 [82.68.43.14] (helo=[192.168.1.3])
 by rutherford.zen.co.uk with esmtp (Exim 4.50)
 id 1IcOcX-0004Qt-6L
 for nneul@neulinger.org; Mon, 01 Oct 2007 16:59:49 +0000
Mime-Version: 1.0 (Apple Message framework v752.2)
In-Reply-To: <1b1b3fd80710010908k11dac0afp1f2dd471059ff9a4@mail.gmail.com>
References: <1190922867.3457.147.camel@localhost.localdomain>
<EC90713277D2BE41B7110CCD74E235CEF44F38@UMR-CMAIL1.umr.edu>
<1b1b3fd80710010908k11dac0afp1f2dd471059ff9a4@mail.gmail.com>

Content-Type: text/plain; charset=US-ASCII; delsp=yes; format=flowed
Message-Id: <117A1264-F6DC-4E25-B0DD-56FBFEBE6E9F@crypticide.com>
Content-Transfer-Encoding: 7bit
From: Alec Muffett <alecm@crypticide.com>
Subject: Re: cracklib license
Date: Mon, 1 Oct 2007 17:59:46 +0100
To: Nathan Neulinger <nneul@neulinger.org>
X-Mailer: Apple Mail (2.752.2)
X-Originating-Rutherford-IP: [82.68.43.14]
Return-Path: alecm@crypticide.com
X-OriginalArrivalTime: 01 Oct 2007 17:26:03.0008 (UTC) FILETIME=[2420C000:01C80450]
Status: RO
Content-Length:
585
Lines: 21

>
> ---------- Forwarded message ----------
> From: Neulinger, Nathan <nneul@umr.edu>
> Date: Sep 27, 2007 2:58 PM
> Subject: RE: cracklib license
> To: alecm@crypto.dircon.co.uk
>
> Any chance you could write me a self-contained email stating clearly
> that the license is being changed to GPL, so I could include that
> email
> in the repository and clean up the repository/tarballs? I have all the
> original discussion, but something succinct and self contained
> would be
> ideal.

The license for my code in the Cracklib distribution is henceforth GPL.

Happy now? :-)

-a

1.248 nfs-utils 3.1.1

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1.249 busybox 1.19.4

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effectively restrict the users of a free program by obtaining a
restrictive license from a patent holder. Therefore, we insist that
any patent license obtained for a version of the library must be
consistent with the full freedom of use specified in this license.

Most GNU software, including some libraries, is covered by the ordinary GNU General Public License. This license, the GNU Lesser General Public License, applies to certain designated libraries, and is quite different from the ordinary General Public License. We use this license for certain libraries in order to permit linking those libraries into non-free programs.

When a program is linked with a library, whether statically or using a shared library, the combination of the two is legally speaking a combined work, a derivative of the original library. The ordinary General Public License therefore permits
such linking only if the
entire combination fits its criteria of freedom. The Lesser General Public License permits more lax criteria for linking other code with the library.

We call this license the "Lesser" General Public License because it does Less to protect the user's freedom than the ordinary General Public License. It also provides other free software developers Less of an advantage over competing non-free programs. These disadvantages are the reason we use the ordinary General Public License for many libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting
the free library to free
software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The

former contains code derived from the library, whereas the latter must be combined with the library in order
to run.

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A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work which has been distributed under these terms. A "work based on the Library" means either the Library or any derivative work under copyright law: that is to say, a work containing the Library or a portion of it, either verbatim or with modifications and/or translated straightforwardly into
another language. (Hereinafter, translation is
included without limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

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2. You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

a) The modified work must itself be a software library.

b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.

c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.

d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to

exercise the right to control the distribution of derivative or
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In addition, mere aggregation of another work not based on the Library
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This option is useful when you wish to copy part of the code of
the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or
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under the terms of Sections 1 and 2 above provided that you accompany
it with the complete corresponding
machine-readable source code, which
must be distributed under the terms of Sections 1 and 2 above on a
medium customarily used for software interchange.

If distribution of object code is made by offering access to copy
from a designated place, then offering equivalent access to copy the
source code from the same place satisfies the requirement to
distribute the source code, even though third parties are not
compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the
Library, but is designed to work with the Library by being compiled or
linked with it, is called a "work that uses the Library". Such a
work, in isolation, is not a derivative work of the Library, and
therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library
creates an executable that is a derivative of the Library (because it
contains portions of the Library), rather than a "work that

uses the
library". The executable is therefore covered by this License.
Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the
object code for the work under the terms of Section 6.
Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

a) Accompany
the work with the complete corresponding
machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood

that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate
properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally
distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

7. You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the Sections above.

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Version 3, 29 June 2007

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stand
ready to extend this provision to those domains in future versions of the GPL, as needed to protect the freedom of users.

Finally, every program is threatened constantly by software patents. States should not allow patents to restrict development and use of software on general-purpose computers, but in those that do, we wish to avoid the special danger that patents applied to a free program could make it effectively proprietary. To prevent this, the GPL assures that

patents cannot be used to render the program non-free.

The precise terms and conditions for copying, distribution and modification follow.

TERMS AND CONDITIONS

0. Definitions.

"This License" refers to version 3 of the GNU General Public License.

"Copyright" also means copyright-like laws that apply to other kinds of works, such as semiconductor masks.

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To "modify" a work means to copy from or adapt all or part of the work in a fashion requiring copyright permission, other than the making of an exact copy. The resulting work is called a "modified version" of the earlier work or a work "based on" the earlier work.

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1. Source Code.

The "source code" for a work means the preferred form of the work for making modifications to it. "Object code" means any non-source form of a work.

A "Standard Interface" means an interface that either is an official standard defined by a recognized standards body, or, in the case of interfaces specified for a particular programming language, one that is widely used among developers working in that language.

The
"System Libraries" of an executable work include anything, other than the work as a whole, that (a) is included in the normal form of packaging a Major Component, but which is not part of that Major Component, and (b) serves only to enable use of the work with that Major Component, or to implement a Standard Interface for which an implementation is available to the public in source code form. A "Major Component", in this context, means a major essential component (kernel, window system, and so on) of the specific operating system (if any) on which the executable work runs, or a compiler used to produce the work, or an object code interpreter used to run it.

The "Corresponding Source" for a work in object code form means all the source code needed to generate, install, and (for an executable work) run the object code and to modify the work, including scripts to control those activities. However, it does not include the work's System Libraries, or general-purpose tools or generally
available free
programs which are used unmodified in performing those activities but which are not part of the work. For example, Corresponding Source includes interface definition files associated with source files for the work, and the source code for shared libraries and dynamically linked subprograms that the work is specifically designed to require, such as by intimate data communication or control flow between those subprograms and other parts of the work.

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You may convey a work based on the Program, or the modifications to produce it from the Program, in the form of source code under the terms of section 4, provided that you also meet all of these conditions:

a) The work must carry prominent notices stating that you modified it, and giving a relevant date.

b) The work must carry prominent notices stating that it is released under this License and any conditions added under section 7. This requirement modifies the requirement in section 4 to "keep intact all notices".

c) You must license the entire work, as a whole, under this License to anyone who comes into possession of a copy. This License will therefore apply, along with any applicable section 7 additional terms, to the whole of the work, and all its parts, regardless of how they are packaged. This License gives no permission to license the work in any other way, but it does not invalidate such permission if you have separately received it.

d) If the work has interactive user interfaces, each must display Appropriate Legal Notices; however, if the Program has interactive interfaces that do not display Appropriate Legal Notices, your work need not make them do so.

A compilation of a covered work with other separate and independent works, which are not by their nature extensions of the covered work, and which are not combined with it such as to form a larger program, in or on a volume of a storage or distribution medium, is called an "aggregate" if the compilation and its resulting copyright are not used to limit the access or legal rights of the compilation's users beyond what the individual works permit. Inclusion of a covered work in an aggregate does not cause this License to apply to the other parts of the aggregate.

6. Conveying Non-Source Forms.

You may convey a covered work in object code form under the terms of sections 4 and 5, provided that you also convey the

machine-readable Corresponding Source under the terms of this License,
in one of these ways:

a) Convey the object code in, or embodied in, a physical product
(including a physical distribution medium), accompanied by the
Corresponding Source fixed on a durable physical medium
customarily used for software interchange.

b) Convey the object code in, or embodied in, a physical product
(including a physical distribution medium), accompanied by a
written offer, valid for at least three years
and valid for as
long as you offer spare parts or customer support for that product
model, to give anyone who possesses the object code either (1) a
copy of the Corresponding Source for all the software in the
product that is covered by this License, on a durable physical
medium customarily used for software interchange, for a price no
more than your reasonable cost of physically performing this
conveying of source, or (2) access to copy the
Corresponding Source from a network server at no charge.

c) Convey individual copies of the object code with a copy of the
written offer to provide the Corresponding Source. This
alternative is allowed only occasionally and noncommercially, and
only if you received the object code with such an offer, in accord
with subsection 6b.

d) Convey the object code by offering access from a designated
place (gratis or for a charge), and offer equivalent access to the
Corresponding Source in
the same way through the same place at no
further charge. You need not require recipients to copy the
Corresponding Source along with the object code. If the place to
copy the object code is a network server, the Corresponding Source
may be on a different server (operated by you or a third party)
that supports equivalent copying facilities, provided you maintain
clear directions next to the object code saying where to find the
Corresponding Source. Regardless of what server hosts the
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e) Convey the object code using peer-to-peer transmission, provided
you inform other peers where the object code and Corresponding
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charge under subsection 6d.

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1.259 libtasn 4.19.0

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Found in path(s):
* /thttpd-2-25b-tar/thttpd-2.25b/tdate_parse.c
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/* fdwatch.c - fd watcher routines, either select() or poll()
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Found in path(s):
* /thttpd-2-25b-tar/thttpd-2.25b/fdwatch.c

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/* match.c - simple shell-style filename matcher
**
** Only does ? * and **, and multiple patterns separated by |. Returns 1 or 0.
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/* libhttpd.c - HTTP protocol library
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/* fdwatch.h - header file for fdwatch package
**
** This package abstracts the use of the select()/poll()/kqueue()
** system calls. The basic function of these calls is to watch a set
** of file descriptors for activity. select() originated in the BSD world,
** while poll() came from SysV land, and their interfaces are somewhat
** different. fdwatch lets you write your code to a single interface,
** with the portability differences hidden inside the package.
**
** Usage is fairly simple. Call fdwatch_get_nfiles() to initialize
** the package and find out how many fine descriptors are available.
** Then each time through your main loop, call fdwatch_clear(), then
** fdwatch_add_fd() for each of the descriptors you want to watch,
** then call fdwatch() to actually perform the watch. After it returns
** you can check which descriptors are ready via fdwatch_check_fd().
**
** If your descriptor set hasn't changed from
the last time through
** the loop, you can skip calling fdwatch_clear() and fdwatch_add_fd()
** to save a little CPU time.
**
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/* mmc.h - header file for mmap cache package
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/* phf - cracker trap
**
** Old distributions of the NCSA and Apache web servers included a
** version of the phf program that had a bug. The program could
** easily be made to run arbitrary shell commands. There is no real
** legitimate use for phf, so any attempts to run it must be considered
** to be attacks. Accordingly, this version of phf logs the attack
** and then returns a page indicating that phf doesn't exist.
**
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```
/* timers.c - simple timer routines
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/* libhttpd.h - defines for libhttpd
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/* config.h - configuration defines for thttpd and libhttpd
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```
/* timers.h - header file for timers package
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* /thttpd-2-25b-tar/thttpd-2.25b/cgi-src/Makefile
* /thttpd-2-25b-tar/thttpd-2.25b/Makefile
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/* match.h - simple shell-style filename patcher
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1.262 tftp-hpa 0.28

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* /tftp-hpa-5-2-4-tar-bz2/tftp-hpa-5.2/tftpd/remap.h
* /tftp-hpa-5-2-4-tar-bz2/tftp-hpa-5.2/tftpd/misc.c
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Found in path(s):
* /tftp-hpa-5-2-4-tar-bz2/tftp-hpa-5.2/tftpd/tftpd.8.in
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.\"   documentation and/or other materials provided with the distribution.
.\" 3. Neither the name of the University nor the names of its contributors
.\"   without specific prior written permission.

Found in path(s):
* /tftp-hpa-5-2-4-tar-bz2/tftp-hpa-5.2/tftp/tftp.1.in
No license file was found, but licenses were detected in source scan.

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This program is free software available under the same license

Found in path(s):
* /tftp-hpa-5-2-4-tar-bz2/tftp-hpa-5.2/MCONFIG.in
No license file was found, but licenses were detected in source scan.

/*
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*   must display the following acknowledgement:
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* OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)
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* LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY
* OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF
* SUCH DAMAGE.
*/

Found
 in path(s):
* /tftp-hpa-5-2-4-tar-bz2/tftp-hpa-5.2/tftpd/tftpd.c
No license file was found, but licenses were detected in source scan.

/* -*- c -*- --- *
*
*   Copyright 2001-2006 H. Peter Anvin - All Rights Reserved
*
*   This program is free software available under the same license
*   as the "OpenBSD" operating system, distributed at
*   http://www.openbsd.org/.
*
* --- */

Found in path(s):
* /tftp-hpa-5-2-4-tar-bz2/tftp-hpa-5.2/config.h
No license file was found, but licenses were detected in source scan.

Summary: The client for the Trivial File Transfer Protocol (TFTP).
Name: tftp
Version: 5.2
Release: 1
License: BSD
Group: Applications/Internet
Source0: http://www.kernel.org/pub/software/network/tftp/tftp-hpa-%{version}.tar.gz
BuildRequires: tcp_wrappers-devel
BuildRoot: %{_tmppath}/%{name}-root

%description
The Trivial File Transfer Protocol (TFTP) is normally used only for
booting diskless workstations. The tftp package provides the user
interface for TFTP, which allows users to transfer files to and from a
remote machine. This program and TFTP provide very little security,
and should not be enabled unless it is expressly needed.

%package server
Group: System Environment/Daemons
Summary: The server for the Trivial File Transfer Protocol (TFTP).

```
Requires: xinetd

%description server
The Trivial File Transfer Protocol (TFTP) is normally used only for
booting diskless workstations.  The tftp-server package provides
 the
server for TFTP, which allows users to transfer files to and from a
remote machine. TFTP provides very little security, and should not be
enabled unless it is expressly needed.  The TFTP server is run from
/etc/xinetd.d/tftp, and is disabled by default on Red Hat Linux systems.

%prep
%setup -q -n tftp-hpa-%{version}

%build

%configure
make %{?_smp_mflags}

%install
rm -rf ${RPM_BUILD_ROOT}
mkdir -p ${RPM_BUILD_ROOT}%{_bindir}
mkdir -p ${RPM_BUILD_ROOT}%{_mandir}/man{1,8}
mkdir -p ${RPM_BUILD_ROOT}%{_sbindir}

make INSTALLROOT=${RPM_BUILD_ROOT} \
   SBINDIR=%{_sbindir} MANDIR=%{_mandir} \
 install
install -m755 -d ${RPM_BUILD_ROOT}%{_sysconfdir}/xinetd.d/ ${RPM_BUILD_ROOT}/tftpboot
install -m644 tftp-xinetd ${RPM_BUILD_ROOT}%{_sysconfdir}/xinetd.d/tftp

%post server
/sbin/service xinetd reload > /dev/null 2>&1 || :

%postun server
if [ $1 = 0 ]; then
   /sbin/service xinetd reload > /dev/null 2>&1 || :
fi

%clean
rm -rf ${RPM_BUILD_ROOT}

%files
%defattr(-,root,root)
%{_bindir}/tftp
%{_mandir}/man1/*

%files
```

server
%defattr(-,root,root)
%config(noreplace) %{_sysconfdir}/xinetd.d/tftp
%dir /tftpboot
%{_sbindir}/in.tftpd
%{_mandir}/man8/*

%changelog
* Tue Sep 14 2004 H. Peter Anvin <hpa@zytor.com>
- removed completely broken "Malta" patch.
- integrated into build machinery so rpm -ta works.

* Fri Feb 13 2004 Elliot Lee <sopwith@redhat.com>
- rebuilt

* Wed Jun 04 2003 Elliot Lee <sopwith@redhat.com>
- rebuilt

* Fri Apr 11 2003 Elliot Lee <sopwith@redhat.com>
- 0.33
- Add /tftpboot directory (#88204)

* Mon Feb 24 2003 Elliot Lee <sopwith@redhat.com>
- rebuilt

* Sun Feb 23 2003 Tim Powers <timp@redhat.com>
- add BuildPreReq on tcp_wrappers

* Wed Jan 22 2003 Tim Powers <timp@redhat.com>
- rebuilt

* Mon Nov 11 2002 Elliot Lee <sopwith@redhat.com> 0.32-1
- Update to 0.32

* Wed Oct 23 2002 Elliot Lee <sopwith@redhat.com> 0.30-1
- Fix #55789
- Update to 0.30

* Thu Jun 27 2002 Elliot Lee <sopwith@redhat.com>
- Try applying HJ's patch from #65476

* Fri Jun
21 2002 Tim Powers <timp@redhat.com>
- automated rebuild

* Mon Jun 17 2002 Elliot Lee <sopwith@redhat.com>
- Update to 0.29

* Thu May 23 2002 Tim Powers <timp@redhat.com>
- automated rebuild

* Wed Jan 09 2002 Tim Powers <timp@redhat.com>
- automated rebuild

* Tue Dec 18 2001 Elliot Lee <sopwith@redhat.com> 0.17-15
- Add patch4: netkit-tftp-0.17-defaultport.patch for bug #57562
- Update to tftp-hpa-0.28 (bug #56131)
- Remove include/arpa/tftp.h to fix #57259
- Add resource limits in tftp-xinetd (#56722)

* Sun Jun 24 2001 Elliot Lee <sopwith@redhat.com>
- Bump release + rebuild.

* Tue Jun 12 2001 Helge Deller <hdeller@redhat.de> (0.17-13)
- updated tftp-hpa source to tftp-hpa-0.17
- tweaked specfile with different defines for tftp-netkit and tftp-hpa version
- use hpa's tftpd.8 man page instead of the netkits one

* Mon May 07 2001 Helge Deller <hdeller@redhat.de>
- rebuilt in 7.1.x

* Wed Apr 18 2001 Helge Deller <hdeller@redhat.de>
- fix tftp client's put problems (#29529)
- update
 to tftp-hpa-0.16

* Wed Apr 4 2001 Jakub Jelinek <jakub@redhat.com>
- don't let configure to guess compiler, it can pick up egcs

* Thu Feb 08 2001 Helge Deller <hdeller@redhat.de>
- changed "wait" in xinetd file to "yes" (hpa-tftpd forks and exits) (#26467)
- fixed hpa-tftpd to handle files greater than 32MB (#23725)
- added "-l" flag to hpa-tftpd for file-logging (#26467)
- added description for "-l" to the man-page

* Thu Feb 08 2001 Helge Deller <hdeller@redhat.de>
- updated tftp client to 0.17 stable (#19640),
- drop dependency on xinetd for tftp client (#25051),

* Wed Jan 17 2001 Jeff Johnson <jbj@redhat.com>
- xinetd shouldn't wait on tftp (which forks) (#23923).

* Sat Jan 6 2001 Jeff Johnson <jbj@redhat.com>
- fix to permit tftp put's (#18128).
- startup as root with chroot to /tftpboot with early reversion to nobody
 is preferable to starting as nobody w/o ability to chroot.

- %%post is needed by server, not client. Add %%postun for erasure as well.

* Wed Aug 23 2000
Nalin Dahyabhai <nalin@redhat.com>
- default to being disabled

* Thu Aug 17 2000 Jeff Johnson <jbj@redhat.com>
- correct group.

* Tue Jul 25 2000 Nalin Dahyabhai <nalin@redhat.com>
- change user from root to nobody

* Sat Jul 22 2000 Jeff Johnson <jbj@redhat.com>
- update to tftp-hpa-0.14 (#14003).
- add server_args (#14003).
- remove -D_BSD_SOURCE (#14003).

* Fri Jul 21 2000 Nalin Dahyabhai <nalin@redhat.com>
- cook up an xinetd config file for tftpd

* Wed Jul 12 2000 Prospector <bugzilla@redhat.com>
- automatic rebuild

* Sun Jun 18 2000 Jeff Johnson <jbj@redhat.com>
- FHS packaging.
- update to 0.17.

* Fri May 5 2000 Matt Wilson <msw@redhat.com>
- use _BSD_SOURCE for hpa's tftpd so we get BSD signal semantics.

* Fri Feb 11 2000 Bill Nottingham <notting@redhat.com>
- fix description

* Wed Feb 9 2000 Jeff Johnson <jbj@redhat.com>
- compress man pages (again).

* Wed Feb 02 2000 Cristian Gafton <gafton@redhat.com>
- man pages are compressed
- fix description and summary

* Tue
Jan 4 2000 Bill Nottingham <notting@redhat.com>
- split client and server

* Tue Dec 21 1999 Jeff Johnson <jbj@redhat.com>
- update to 0.16.

* Sat Aug 28 1999 Jeff Johnson <jbj@redhat.com>

- update to 0.15.

* Wed Apr 7 1999 Jeff Johnson <jbj@redhat.com>
- tftpd should truncate file when overwriting (#412)

* Sun Mar 21 1999 Cristian Gafton <gafton@redhat.com>
- auto rebuild in the new build environment (release 22)

* Mon Mar 15 1999 Jeff Johnson <jbj@redhat.com>
- compile for 6.0.

* Fri Aug 7 1998 Jeff Johnson <jbj@redhat.com>
- build root

* Mon Apr 27 1998 Prospector System <bugs@redhat.com>
- translations modified for de, fr, tr

* Mon Sep 22 1997 Erik Troan <ewt@redhat.com>
- added check for getpwnam() failure

* Tue Jul 15 1997 Erik Troan <ewt@redhat.com>
- initial build

Found in path(s):
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*
* -- */

Found in path(s):
* /tftp-hpa-5-2-4-tar-bz2/tftp-hpa-5.2/tftpd/tftpd.h
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Found in path(s):
* /tftp-hpa-5-2-4-tar-bz2/tftp-hpa-5.2/tftp/main.c
* /tftp-hpa-5-2-4-tar-bz2/tftp-hpa-5.2/tftp/tftp.c
*
 /tftp-hpa-5-2-4-tar-bz2/tftp-hpa-5.2/common/tftpsubs.c
No license file was found, but licenses were detected in source scan.

/* --- *
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*   This program is free software available under the same license
*   as the "OpenBSD" operating system, distributed at
*   http://www.openbsd.org/.
*
* --- */

Found in path(s):
* /tftp-hpa-5-2-4-tar-bz2/tftp-hpa-5.2/tftpd/recvfrom.h
* /tftp-hpa-5-2-4-tar-bz2/tftp-hpa-5.2/tftpd/recvfrom.c

No license file was found, but licenses were detected in source scan.

```
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*/
```

Found in path(s):
* /tftp-hpa-5-2-4-tar-bz2/tftp-hpa-5.2/common/tftpsubs.h
* /tftp-hpa-5-2-4-tar-bz2/tftp-hpa-5.2/tftp/extern.h
No license file was found, but licenses were detected in source scan.

Summary: The client for the Trivial File Transfer Protocol (TFTP).
Name: tftp
Version: @@VERSION@@
Release: 1
License: BSD
Group: Applications/Internet
Source0: http://www.kernel.org/pub/software/network/tftp/tftp-hpa-%{version}.tar.gz

```
BuildRequires: tcp_wrappers-devel
BuildRoot: %{_tmppath}/%{name}-root

%description
The Trivial File Transfer Protocol (TFTP) is normally used only for
booting diskless workstations.  The tftp package provides the user
interface for TFTP, which allows users to transfer files to and from a
remote machine.  This program and TFTP provide very little security,
and should not be enabled unless it is expressly needed.

%package server
Group: System Environment/Daemons
Summary: The server for the Trivial File Transfer Protocol (TFTP).
Requires: xinetd

%description server
The Trivial File Transfer Protocol (TFTP) is normally used only for
booting diskless workstations.  The tftp-server package
 provides the
server for TFTP, which allows users to transfer files to and from a
remote machine. TFTP provides very little security, and should not be
enabled unless it is expressly needed.  The TFTP server is run from
/etc/xinetd.d/tftp, and is disabled by default on Red Hat Linux systems.

%prep
%setup -q -n tftp-hpa-%{version}

%build

%configure
make %{?_smp_mflags}

%install
rm -rf ${RPM_BUILD_ROOT}
mkdir -p ${RPM_BUILD_ROOT}%{_bindir}
mkdir -p ${RPM_BUILD_ROOT}%{_mandir}/man{1,8}
mkdir -p ${RPM_BUILD_ROOT}%{_sbindir}

make INSTALLROOT=${RPM_BUILD_ROOT} \
   SBINDIR=%{_sbindir} MANDIR=%{_mandir} \
 install
install -m755 -d ${RPM_BUILD_ROOT}%{_sysconfdir}/xinetd.d/ ${RPM_BUILD_ROOT}/tftpboot
install -m644 tftp-xinetd ${RPM_BUILD_ROOT}%{_sysconfdir}/xinetd.d/tftp

%post server
/sbin/service xinetd reload > /dev/null 2>&1 || :

%postun server
```

```
if [ $1 = 0 ]; then
  /sbin/service xinetd reload > /dev/null 2>&1 || :
fi

%clean
rm -rf ${RPM_BUILD_ROOT}

%files
%defattr(-,root,root)
%{_bindir}/tftp
%{_mandir}/man1/*

%files
 server
%defattr(-,root,root)
%config(noreplace) %{_sysconfdir}/xinetd.d/tftp
%dir /tftpboot
%{_sbindir}/in.tftpd
%{_mandir}/man8/*

%changelog
* Tue Sep 14 2004 H. Peter Anvin <hpa@zytor.com>
- removed completely broken "Malta" patch.
- integrated into build machinery so rpm -ta works.

* Fri Feb 13 2004 Elliot Lee <sopwith@redhat.com>
- rebuilt

* Wed Jun 04 2003 Elliot Lee <sopwith@redhat.com>
- rebuilt

* Fri Apr 11 2003 Elliot Lee <sopwith@redhat.com>
- 0.33
- Add /tftpboot directory (#88204)

* Mon Feb 24 2003 Elliot Lee <sopwith@redhat.com>
- rebuilt

* Sun Feb 23 2003 Tim Powers <timp@redhat.com>
- add BuildPreReq on tcp_wrappers

* Wed Jan 22 2003 Tim Powers <timp@redhat.com>
- rebuilt

* Mon Nov 11 2002 Elliot Lee <sopwith@redhat.com> 0.32-1
- Update to 0.32

* Wed Oct 23 2002 Elliot Lee <sopwith@redhat.com> 0.30-1
```

- Fix #55789
- Update to 0.30

* Thu Jun 27 2002 Elliot Lee <sopwith@redhat.com>
- Try applying HJ's patch from #65476

*
 Fri Jun 21 2002 Tim Powers <timp@redhat.com>
- automated rebuild

* Mon Jun 17 2002 Elliot Lee <sopwith@redhat.com>
- Update to 0.29

* Thu May 23 2002 Tim Powers <timp@redhat.com>
- automated rebuild

* Wed Jan 09 2002 Tim Powers <timp@redhat.com>
- automated rebuild

* Tue Dec 18 2001 Elliot Lee <sopwith@redhat.com> 0.17-15
- Add patch4: netkit-tftp-0.17-defaultport.patch for bug #57562
- Update to tftp-hpa-0.28 (bug #56131)
- Remove include/arpa/tftp.h to fix #57259
- Add resource limits in tftp-xinetd (#56722)

* Sun Jun 24 2001 Elliot Lee <sopwith@redhat.com>
- Bump release + rebuild.

* Tue Jun 12 2001 Helge Deller <hdeller@redhat.de> (0.17-13)
- updated tftp-hpa source to tftp-hpa-0.17
- tweaked specfile with different defines for tftp-netkit and tftp-hpa version
- use hpa's tftpd.8 man page instead of the netkits one

* Mon May 07 2001 Helge Deller <hdeller@redhat.de>
- rebuilt in 7.1.x

* Wed Apr 18 2001 Helge Deller <hdeller@redhat.de>
- fix tftp client's put problems (#29529)
-
 update to tftp-hpa-0.16

* Wed Apr 4 2001 Jakub Jelinek <jakub@redhat.com>
- don't let configure to guess compiler, it can pick up egcs

* Thu Feb 08 2001 Helge Deller <hdeller@redhat.de>
- changed "wait" in xinetd file to "yes" (hpa-tftpd forks and exits) (#26467)
- fixed hpa-tftpd to handle files greater than 32MB (#23725)
- added "-l" flag to hpa-tftpd for file-logging (#26467)

- added description for "-l" to the man-page

* Thu Feb 08 2001 Helge Deller <hdeller@redhat.de>
- updated tftp client to 0.17 stable (#19640),
- drop dependency on xinetd for tftp client (#25051),

* Wed Jan 17 2001 Jeff Johnson <jbj@redhat.com>
- xinetd shouldn't wait on tftp (which forks) (#23923).

* Sat Jan 6 2001 Jeff Johnson <jbj@redhat.com>
- fix to permit tftp put's (#18128).
- startup as root with chroot to /tftpboot with early reversion to nobody
 is preferable to starting as nobody w/o ability to chroot.
- %%post is needed by server, not client. Add %%postun for erasure as well.

* Wed Aug
 23 2000 Nalin Dahyabhai <nalin@redhat.com>
- default to being disabled

* Thu Aug 17 2000 Jeff Johnson <jbj@redhat.com>
- correct group.

* Tue Jul 25 2000 Nalin Dahyabhai <nalin@redhat.com>
- change user from root to nobody

* Sat Jul 22 2000 Jeff Johnson <jbj@redhat.com>
- update to tftp-hpa-0.14 (#14003).
- add server_args (#14003).
- remove -D_BSD_SOURCE (#14003).

* Fri Jul 21 2000 Nalin Dahyabhai <nalin@redhat.com>
- cook up an xinetd config file for tftpd

* Wed Jul 12 2000 Prospector <bugzilla@redhat.com>
- automatic rebuild

* Sun Jun 18 2000 Jeff Johnson <jbj@redhat.com>
- FHS packaging.
- update to 0.17.

* Fri May 5 2000 Matt Wilson <msw@redhat.com>
- use _BSD_SOURCE for hpa's tftpd so we get BSD signal semantics.

* Fri Feb 11 2000 Bill Nottingham <notting@redhat.com>
- fix description

* Wed Feb 9 2000 Jeff Johnson <jbj@redhat.com>
- compress man pages (again).

* Wed Feb 02 2000 Cristian Gafton <gafton@redhat.com>
- man pages are compressed
- fix description and summary

*
 Tue Jan 4 2000 Bill Nottingham <notting@redhat.com>
- split client and server

* Tue Dec 21 1999 Jeff Johnson <jbj@redhat.com>
- update to 0.16.

* Sat Aug 28 1999 Jeff Johnson <jbj@redhat.com>
- update to 0.15.

* Wed Apr 7 1999 Jeff Johnson <jbj@redhat.com>
- tftpd should truncate file when overwriting (#412)

* Sun Mar 21 1999 Cristian Gafton <gafton@redhat.com>
- auto rebuild in the new build environment (release 22)

* Mon Mar 15 1999 Jeff Johnson <jbj@redhat.com>
- compile for 6.0.

* Fri Aug 7 1998 Jeff Johnson <jbj@redhat.com>
- build root

* Mon Apr 27 1998 Prospector System <bugs@redhat.com>
- translations modified for de, fr, tr

* Mon Sep 22 1997 Erik Troan <ewt@redhat.com>
- added check for getpwnam() failure

* Tue Jul 15 1997 Erik Troan <ewt@redhat.com>
- initial build

Found in path(s):
* /tftp-hpa-5-2-4-tar-bz2/tftp-hpa-5.2/tftp.spec.in

1.263 pam 1.1.6

1.263.1 Available under license :

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1.265 racoon 0.8.2

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```
/**************************************************************************
*
*      File: racoon_ext.h
*      Name: Ganesan Rajagopal
*
*      Description:
*      Header file for external apis exported by Racoon
*
*
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*
*
* $Id: racoon_ext.h,v 1.3 2004/06/10 02:20:05 grajagop Exp $
* $Author: grajagop $
* ---------------------------------------------------------------
**************************************************************************
*/
```

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* /racoon-1-tar-gz/nobackup/dvadde/racoon/genlist.c
* /racoon-1-tar-gz/nobackup/dvadde/racoon/rsalist.c
* /racoon-1-tar-gz/nobackup/dvadde/racoon/prsa_tok.l
* /racoon-1-tar-gz/nobackup/dvadde/racoon/rsalist.h
*
 /racoon-1-tar-gz/nobackup/dvadde/racoon/prsa_par.y
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/*
* sha2.c
*
* Version 1.0.0beta1
*
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*
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* /racoon-1-tar-gz/nobackup/dvadde/racoon/algorithm.h
* /racoon-1-tar-gz/nobackup/dvadde/racoon/backupsa.h
* /racoon-1-tar-gz/nobackup/dvadde/racoon/isakmp_base.c
* /racoon-1-tar-gz/nobackup/dvadde/racoon/oakley.c
* /racoon-1-tar-gz/nobackup/dvadde/racoon/dnssec.h
*
 /racoon-1-tar-gz/nobackup/dvadde/racoon/isakmp_quick.h
* /racoon-1-tar-gz/nobackup/dvadde/racoon/strnames.c
* /racoon-1-tar-gz/nobackup/dvadde/racoon/proposal.c
* /racoon-1-tar-gz/nobackup/dvadde/racoon/var.h

* /racoon-1-tar-gz/nobackup/dvadde/racoon/crypto_openssl.c
* /racoon-1-tar-gz/nobackup/dvadde/racoon/vmbuf.c
* /racoon-1-tar-gz/nobackup/dvadde/racoon/policy.c
* /racoon-1-tar-gz/nobackup/dvadde/racoon/vendorid.h
* /racoon-1-tar-gz/nobackup/dvadde/racoon/dnssec.c
* /racoon-1-tar-gz/nobackup/dvadde/racoon/isakmp_quick.c
* /racoon-1-tar-gz/nobackup/dvadde/racoon/proposal.h
* /racoon-1-tar-gz/nobackup/dvadde/racoon/sockmisc.c
* /racoon-1-tar-gz/nobackup/dvadde/racoon/misc.c
* /racoon-1-tar-gz/nobackup/dvadde/racoon/logger.h
* /racoon-1-tar-gz/nobackup/dvadde/racoon/debug.h
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* /racoon-1-tar-gz/nobackup/dvadde/racoon/str2val.c
* /racoon-1-tar-gz/nobackup/dvadde/racoon/isakmp_base.h
*
/racoon-1-tar-gz/nobackup/dvadde/racoon/localconf.c
* /racoon-1-tar-gz/nobackup/dvadde/racoon/str2val.h
* /racoon-1-tar-gz/nobackup/dvadde/racoon/plog.h
* /racoon-1-tar-gz/nobackup/dvadde/racoon/racoonctl.h
* /racoon-1-tar-gz/nobackup/dvadde/racoon/sockmisc.h
* /racoon-1-tar-gz/nobackup/dvadde/racoon/plog.c
* /racoon-1-tar-gz/nobackup/dvadde/racoon/backupsa.c
* /racoon-1-tar-gz/nobackup/dvadde/racoon/algorithm.c
* /racoon-1-tar-gz/nobackup/dvadde/racoon/isakmp_ident.h
* /racoon-1-tar-gz/nobackup/dvadde/racoon/isakmp_agg.h
* /racoon-1-tar-gz/nobackup/dvadde/racoon/strnames.h
* /racoon-1-tar-gz/nobackup/dvadde/racoon/cfparse_proto.h
* /racoon-1-tar-gz/nobackup/dvadde/racoon/grabmyaddr.h
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* /racoon-1-tar-gz/nobackup/dvadde/racoon/isakmp_inf.c
* /racoon-1-tar-gz/nobackup/dvadde/racoon/sainfo.h
* /racoon-1-tar-gz/nobackup/dvadde/racoon/remoteconf.h
* /racoon-1-tar-gz/nobackup/dvadde/racoon/vendorid.c
*
/racoon-1-tar-gz/nobackup/dvadde/racoon/isakmp_inf.h
* /racoon-1-tar-gz/nobackup/dvadde/racoon/misc.h
* /racoon-1-tar-gz/nobackup/dvadde/racoon/isakmp.h
* /racoon-1-tar-gz/nobackup/dvadde/racoon/localconf.h
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* /racoon-1-tar-gz/nobackup/dvadde/racoon/cftoken_proto.h
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* /racoon-1-tar-gz/nobackup/dvadde/racoon/session.h
* /racoon-1-tar-gz/nobackup/dvadde/racoon/policy.h
* /racoon-1-tar-gz/nobackup/dvadde/racoon/pfkey.h

* /racoon-1-tar-gz/nobackup/dvadde/racoon/debugrm.h
* /racoon-1-tar-gz/nobackup/dvadde/racoon/isakmp_newg.c
* /racoon-1-tar-gz/nobackup/dvadde/racoon/sainfo.c
* /racoon-1-tar-gz/nobackup/dvadde/racoon/isakmp_newg.h
* /racoon-1-tar-gz/nobackup/dvadde/racoon/main.c
* /racoon-1-tar-gz/nobackup/dvadde/racoon/logger.c
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*/
/*
  * When negotiating ESP without authentication, the Auth
  * Algorithm attribute MUST NOT be included in the proposal.
  * When negotiating ESP without confidentiality, the Auth
  * Algorithm attribute MUST be included in the proposal and
  * the ESP transform ID must be ESP_NULL.
 */
```

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```
/*
* rijndael-api-fst.c   v2.3   April '2000
*
* Optimised ANSI C code
*
* authors: v1.0: Antoon Bosselaers
*          v2.0: Vincent Rijmen
*          v2.1: Vincent Rijmen
*          v2.2: Vincent Rijmen
*          v2.3: Paulo Barreto
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*/
/*
  * special exception for comparing
        * address to subnet id types when
        * the netmask is address length
        */
```

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* /racoon-1-tar-gz/nobackup/dvadde/racoon/throttle.c
* /racoon-1-tar-gz/nobackup/dvadde/racoon/throttle.h
* /racoon-1-tar-gz/nobackup/dvadde/racoon/isakmp_frag.c
* /racoon-1-tar-gz/nobackup/dvadde/racoon/privsep.c
* /racoon-1-tar-gz/nobackup/dvadde/racoon/privsep.h
* /racoon-1-tar-gz/nobackup/dvadde/racoon/isakmp_unity.c
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This document is derived from the KAME racoon FAQ. Some answers do not
apply to ipsec-tools (they are obsolete or not up to date). They are
tagged [KAME]

Q: With what other IKE/IPsec implementation racoon is known to be interoperable?

A: [KAME]
 See "IMPLEMENTATION" document supplied with KAME kit, or:
 http://www.kame.net/dev/cvsweb.cgi/kame/IMPLEMENTATION
 As we have tested/got test reports in the past, and our end and
 the other end may have changed their implemenations, we are not sure
 if we can interoperate with them today (we hope them to interoperate,
 but we are not sure).
 Also note that, IKE interoperability highly depends on configuration
 on both ends. You must configure both ends exactly the same.

Q: How can I make racoon interoperate with <IKE/IPsec implementation>?

A:
Configure both ends exactly the same. With just a tiny little
difference, you will be in trouble.

Q: How to build racoon on my
platform?

A:
As usual: configure && make && make install
ipsec-tools is also available as a package in the NetBSD pkgsrc

Q: Describe me the options to "configure".

A:
--enable-adminport:
Lets racoon to listen to racoon admin port, which is to
be contacted by racoonctl(8).
--enable-natt:
Enable NAT-Traversal. This needs kernel support, which is
available on Linux. On NetBSD, NAT-Traversal kernel support
has not been integrated yet, you can get it from here:
http://ipsec-tools.sourceforge.net/netbsd_nat-t.diff
If you live in a country where software patents are legal,
using NAT-Traversal might infringe a patent.
--enable-broken-natt:
When ipsec-tools is built with --enable-natt, racoon
sets IKE ports in SAD and SPD so that the kernel is
able to ditinguish peers hidden behind the same NAT.
Some kernel will not cope with that ports. Use that
option to force the ports to 0 in SAD ans SPD. Of
course this means that you cannot have multiple peers
behind
the same NAT.
--enable-frag:
Enable IKE fragmentation, which is a workaround for
broken routers that drop fragmented packets
--enable-hybrid:
Enable hybrid authentication, and ISAKMP mode config and
Xauth as well. Note that plain Xauth (without hybrid auth)
is not implemented.
--with-libradius:
Enable the use of RADIUS with hybrid authentication on the
server side. RADIUS is used for authentication, configuration
and accounting.
--with-libpam:
Enable the use of PAM with hybrid authentication on the

server side. PAM can be used for authentication and accounting.
--enable-gssapi:
Enable GSS-API, for Kerberos V support.
--enable-stats:
Enable statistics logging function.
--enable-samode-unspec:
Enable to use unspecified a mode of SA.
--enable-ipv6:
Enable IPv6 support.
--with-kernel-headers:
Supply the location of Linux kernel headers.
--with-readline:
Support readline input (yes by default).
--with-openssl:
Specify OpenSSL directory.
--sysconfdir:
Where
racoon config file goes. Default is /etc, which means
that racoon will look for /etc/racoon.conf
--localstatedir:
Where is the directory where racoon stores the control socket
(when using --enable-adminport). Default is /var, which
means racoon will use /var/racoon/racoon.sock
--prefix:
Where racoon gets installed.

Q: How can I get help?

A:
Always identify your operating system platforms, the versions you are
using (like "ipsec-tools-0.5"), and information to repeat the
problem. The more revelant information you supply, the better your
chances of getting help are. Useful informations include, depending
of the problem:
- version identification
- trace from racoon, taken by "racoon -d 0xffffffff"
(maximum debug level)
- configuration file you are using
- probabaly, tcpdump trace
http://orange.kame.net/dev/send-pr.html has the guideline.

If your question is not confidential, send your questions to:
<ipsec-tools-devel@lists.sourceforge.net>

If
your question is confidential, send your questions to:
<ipsec-tools-core@lists.sourceforge.net>

Q: Other documents to look at?

A:
http://www.NetBSD.org/docs/network/ipsec/
http://www.kame.net/
http://www.kame.net/newsletter/

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* /racoon-1-tar-gz/nobackup/dvadde/racoon/racoonctl.c
* /racoon-1-tar-gz/nobackup/dvadde/racoon/schedule.c
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```
/*
* SELinux services exported to the rest of the kernel.
*
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```

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```
/*
* rijndael-alg-fst.c   v2.3   April '2000
*
* Optimised ANSI C code
*
* authors: v1.0: Antoon Bosselaers
*          v2.0: Vincent Rijmen
*          v2.3: Paulo Barreto
*
* This code is placed in the public domain.
*/
```

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* /racoon-1-tar-gz/nobackup/dvadde/racoon/missing/crypto/rijndael/rijndael-alg-fst.c
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```

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* /racoon-1-tar-gz/nobackup/dvadde/racoon/racoon.8
* /racoon-1-tar-gz/nobackup/dvadde/racoon/plainrsa-gen.8
* /racoon-1-tar-gz/nobackup/dvadde/racoon/racoon.conf.5
* /racoon-1-tar-gz/nobackup/dvadde/racoon/racoonctl.8
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* /racoon-1-tar-gz/nobackup/dvadde/racoon/admin.c
* /racoon-1-tar-gz/nobackup/dvadde/racoon/isakmp.c
* /racoon-1-tar-gz/nobackup/dvadde/racoon/handler.c
* /racoon-1-tar-gz/nobackup/dvadde/racoon/isakmp_var.h
* /racoon-1-tar-gz/nobackup/dvadde/racoon/remoteconf.c
* /racoon-1-tar-gz/nobackup/dvadde/racoon/handler.h
*
 /racoon-1-tar-gz/nobackup/dvadde/racoon/isakmp_ident.c
* /racoon-1-tar-gz/nobackup/dvadde/racoon/pfkey.c
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/*
* sha2.h
*
* Version 1.0.0beta1

```
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* /racoon-1-tar-gz/nobackup/dvadde/racoon/cfparse.h

1.266 gawk 4.2.1

1.266.1 Available under license :

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or for a fee, you must give the recipients all the rights that we gave
you. You must make sure that they, too, receive or can get the source
code. If you link a program with the library, you must provide
complete object files to the recipients so that they can relink them
with the library, after making
changes to the library and recompiling
it. And you must show them these terms so they know their rights.

Our method of protecting your rights has two steps: (1) copyright
the library, and (2) offer you this license which gives you legal
permission to copy, distribute and/or modify the library.

Also, for each distributor's protection, we want to make certain
that everyone understands that there is no warranty for this free
library. If the library is modified by someone else and passed on, we
want its recipients to know that what they have is not the original
version, so that any problems introduced by others will not reflect on
the original authors' reputations.

Finally, any free program is threatened constantly by software
patents. We wish to avoid the danger that companies distributing free
software will individually obtain patent licenses, thus in effect
transforming the program into proprietary software. To prevent this,
we have made it clear that any patent must be licensed
for everyone's
free use or not licensed at all.

Most GNU software, including some libraries, is covered by the ordinary
GNU General Public License, which was designed for utility programs. This
license, the GNU Library General Public License, applies to certain
designated libraries. This license is quite different from the ordinary
one; be sure to read it in full, and don't assume that anything in it is
the same as in the ordinary license.

The reason we have a separate public license for some libraries is that
they blur the distinction we usually make between modifying or adding to a
program and simply using it. Linking a program with a library, without
changing the library, is in some sense simply using the library, and is
analogous to running a utility program or application program. However, in
a textual and legal sense, the linked executable is a combined work, a
derivative of the original library, and the ordinary General Public License
treats it as such.

Because
of this blurred distinction, using the ordinary General
Public License for libraries did not effectively promote software
sharing, because most developers did not use the libraries. We
concluded that weaker conditions might promote sharing better.

However, unrestricted linking of non-free programs would deprive the
users of those programs of all benefit from the free status of the
libraries themselves. This Library General Public License is intended to
permit developers of non-free programs to use free libraries, while
preserving your freedom as a user of such programs to change the free
libraries that are incorporated in them. (We have not seen how to achieve
this as regards changes in header files, but we have achieved it as regards
changes in the actual functions of the Library.) The hope is that this
will lead to faster development of free libraries.

The precise terms and conditions for copying, distribution and
modification follow. Pay close attention to the difference
between a
"work based on the library" and a "work that uses the library". The
former contains code derived from the library, while the latter only
works together with the library.

Note that it is possible for a library to be covered by the ordinary
General Public License rather than by this special one.

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0. This License Agreement applies to any software library which
contains a notice placed by the copyright holder or other authorized
party saying it may be distributed under the terms of this Library
General Public License (also called "this License"). Each licensee is
addressed as "you".

A "library" means a collection of software functions and/or data
prepared so as to be conveniently linked with application programs
(which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work
which has been distributed
under these terms. A "work based on the
Library" means either the Library or any derivative work under
copyright law: that is to say, a work containing the Library or a
portion of it, either verbatim or with modifications and/or translated
straightforwardly into another language. (Hereinafter, translation is
included without limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent
of the use of the Library in a tool for
writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

1. You may copy and distribute verbatim copies of the Library's complete source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and distribute a copy of this License along with the Library.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

a) The modified work must
itself be a software library.

b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.

c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.

d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices.

Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy.

This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also compile or link a "work that uses the Library" with the Library to produce a

work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

c) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

d) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

7. You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the Sections above.

b) Give prominent notice with the combined library of the fact that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.

8. You may not copy, modify, sublicense, link with, or distribute the Library except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense, link with, or distribute the Library is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

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the Library at all. For example, if a patent
license would not permit royalty-free redistribution of the Library by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Library.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply, and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system;
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to distribute software through any other system and a licensee cannot impose that choice.

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Each

version is given a distinguishing version number. If the Library specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Library does not specify a license version number, you may choose any version ever published by the Free Software Foundation.

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END OF TERMS AND CONDITIONS

Appendix: How to Apply These Terms to Your New Libraries

If you develop a new library, and you want it to be of the greatest possible use to the public, we recommend making it free software that

everyone can redistribute and change. You can do so by permitting
redistribution under these terms (or, alternatively, under the terms of the
ordinary General Public License).

 To apply these terms, attach the following notices to the library. It is
safest to attach them to the start of each source file to most effectively
convey the exclusion of warranty; and each file should have at least the
"copyright" line and a pointer to where the full notice is found.

  <one line to give the library's name and a brief idea of what it does.>
  Copyright (C) <year>
 <name of author>

  This library is free software; you can redistribute it and/or
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  License as published by the Free Software Foundation; either
  version 2 of the License, or (at your option) any later version.

  This library is distributed in the hope that it will be useful,
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  Library General Public License for more details.

  You should have received a copy of the GNU Library General Public
  License along with this library; if not, write to the Free
  Software Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston,
  MA 02110-1301, USA

Also add information on how to contact you by electronic and paper mail.

You should also get your employer (if you work as a programmer) or your
school, if any, to sign a "copyright disclaimer" for the library, if
necessary.
  Here is a sample; alter the names:

 Yoyodyne, Inc., hereby disclaims all copyright interest in the
 library `Frob' (a library for tweaking knobs) written by James Random Hacker.

 <signature of Ty Coon>, 1 April 1990
 Ty Coon, President of Vice

That's all there is to it!
                GNU GENERAL PUBLIC LICENSE
                  Version 3, 29 June 2007

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Preamble

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When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for them if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs, and that you know you can do these things.

To protect your rights, we need to prevent others from denying you these rights or asking you to surrender the rights. Therefore, you have certain responsibilities if you distribute copies of the software, or if you modify it: responsibilities to respect the freedom of others.

For example, if you distribute copies of such a program, whether gratis or for a fee, you must pass on to the recipients the same freedoms that you received. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights.

Developers that use the GNU GPL protect your rights with two steps: (1) assert copyright on the software, and (2) offer you this License giving you legal permission to copy, distribute and/or modify it.

For the developers' and authors' protection, the GPL clearly explains that there is no warranty for this free software. For both users' and authors' sake, the GPL requires that modified versions be marked as changed, so that their problems will not be attributed erroneously to authors of previous versions.

Some devices are designed to deny users access to install or run modified versions of the software inside them, although the manufacturer can do so. This is fundamentally incompatible with the aim of

protecting users' freedom to change the software. The systematic pattern of such abuse occurs in the area of products for individuals to use, which is precisely where it is most unacceptable. Therefore, we have designed this version of the GPL to prohibit the practice for those products. If such problems arise substantially in other domains, we stand
ready to extend this provision to those domains in future versions of the GPL, as needed to protect the freedom of users.

Finally, every program is threatened constantly by software patents. States should not allow patents to restrict development and use of software on general-purpose computers, but in those that do, we wish to avoid the special danger that patents applied to a free program could make it effectively proprietary. To prevent this, the GPL assures that patents cannot be used to render the program non-free.

The precise terms and conditions for copying, distribution and modification follow.

TERMS AND CONDITIONS

0. Definitions.

"This License" refers to version 3 of the GNU General Public License.

"Copyright" also means copyright-like laws that apply to other kinds of works, such as semiconductor masks.

"The Program" refers to any copyrightable work licensed under this License. Each licensee is addressed as "you". "Licensees"
and
"recipients" may be individuals or organizations.

To "modify" a work means to copy from or adapt all or part of the work in a fashion requiring copyright permission, other than the making of an exact copy. The resulting work is called a "modified version" of the earlier work or a work "based on" the earlier work.

A "covered work" means either the unmodified Program or a work based on the Program.

To "propagate" a work means to do anything with it that, without permission, would make you directly or secondarily liable for infringement under applicable copyright law, except executing it on a computer or modifying a private copy. Propagation includes copying, distribution (with or without modification), making available to the public, and in some countries other activities as well.

To "convey" a work means any kind of propagation that enables other parties to make or receive copies. Mere interaction with a user through a computer network, with no transfer of a copy, is not conveying.

An interactive user interface displays "Appropriate Legal Notices" to the extent that it includes a convenient and prominently visible feature that (1) displays an appropriate copyright notice, and (2) tells the user that there is no warranty for the work (except to the extent that warranties are provided), that licensees may convey the work under this License, and how to view a copy of this License. If the interface presents a list of user commands or options, such as a menu, a prominent item in the list meets this criterion.

1. Source Code.

The "source code" for a work means the preferred form of the work for making modifications to it. "Object code" means any non-source form of a work.

A "Standard Interface" means an interface that either is an official standard defined by a recognized standards body, or, in the case of interfaces specified for a particular programming language, one that is widely used among developers working in that language.

The "System Libraries" of an executable work include anything, other than the work as a whole, that (a) is included in the normal form of packaging a Major Component, but which is not part of that Major Component, and (b) serves only to enable use of the work with that Major Component, or to implement a Standard Interface for which an implementation is available to the public in source code form. A "Major Component", in this context, means a major essential component (kernel, window system, and so on) of the specific operating system (if any) on which the executable work runs, or a compiler used to produce the work, or an object code interpreter used to run it.

The "Corresponding Source" for a work in object code form means all the source code needed to generate, install, and (for an executable work) run the object code and to modify the work, including scripts to control those activities. However, it does not include the work's System Libraries, or general-purpose tools or generally available free programs which are used unmodified in performing those activities but which are not part of the work. For example, Corresponding Source includes interface definition files associated with source files for the work, and the source code for shared libraries and dynamically linked subprograms that the work is specifically designed to require,

such as by intimate data communication or control flow between those subprograms and other parts of the work.

The Corresponding Source need not include anything that users can regenerate automatically from other parts of the Corresponding Source.

The Corresponding Source for a work in source code form is that same work.

2. Basic Permissions.

All rights granted under this License are granted for the term of copyright on the Program, and are irrevocable provided the stated conditions are met. This License explicitly affirms your unlimited permission to run the unmodified Program. The output from running a covered work is covered
by this License only if the output, given its
content, constitutes a covered work. This License acknowledges your rights of fair use or other equivalent, as provided by copyright law.

You may make, run and propagate covered works that you do not convey, without conditions so long as your license otherwise remains in force. You may convey covered works to others for the sole purpose of having them make modifications exclusively for you, or provide you with facilities for running those works, provided that you comply with the terms of this License in conveying all material for which you do not control copyright. Those thus making or running the covered works for you must do so exclusively on your behalf, under your direction and control, on terms that prohibit them from making any copies of your copyrighted material outside their relationship with you.

Conveying under any other circumstances is permitted solely under the conditions stated below. Sublicensing is not allowed;
section 10
makes it unnecessary.

3. Protecting Users' Legal Rights From Anti-Circumvention Law.

No covered work shall be deemed part of an effective technological measure under any applicable law fulfilling obligations under article 11 of the WIPO copyright treaty adopted on 20 December 1996, or similar laws prohibiting or restricting circumvention of such measures.

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4. Conveying Verbatim Copies.

You may convey verbatim copies of the Program's source code as you receive it, in any medium, provided that you conspicuously and appropriately
publish on each copy an appropriate copyright notice;
keep intact all notices stating that this License and any non-permissive terms added in accord with section 7 apply to the code; keep intact all notices of the absence of any warranty; and give all recipients a copy of this License along with the Program.

You may charge any price or no price for each copy that you convey, and you may offer support or warranty protection for a fee.

5. Conveying Modified Source Versions.

You may convey a work based on the Program, or the modifications to produce it from the Program, in the form of source code under the terms of section 4, provided that you also meet all of these conditions:

a) The work must carry prominent notices stating that you modified it, and giving a relevant date.

b) The work must carry prominent notices stating that it is released under this License and any conditions added under section 7. This requirement modifies the requirement in section 4 to "keep intact all notices".

c) You must license the entire work, as a whole, under this License to anyone who comes into possession of a copy. This License will therefore apply, along with any applicable section 7 additional terms, to the whole of the work, and all its parts, regardless of how they are packaged. This License gives no permission to license the work in any other way, but it does not invalidate such permission if you have separately received it.

d) If the work has interactive user interfaces, each must display Appropriate Legal Notices; however, if the Program has interactive interfaces that do not display Appropriate Legal Notices, your work need not make them do so.

A compilation of a covered work with other separate and independent

works, which are not by their nature extensions of the covered work, and which are not combined with it such as to form a larger program, in or on a volume of a storage or distribution medium, is called an "aggregate" if the compilation and its resulting copyright are not used to limit the access or legal rights of the compilation's users beyond what the individual works permit. Inclusion of a covered work in an aggregate does not cause this License to apply to the other parts of the aggregate.

6. Conveying Non-Source Forms.

You may convey a covered work in object code form under the terms of sections 4 and 5, provided that you also convey the machine-readable Corresponding Source under the terms of this License, in one of these ways:

a) Convey the object code in, or embodied in, a physical product (including a physical distribution medium), accompanied by the Corresponding Source fixed on a durable physical medium customarily used for software interchange.

b) Convey the object code in, or embodied in, a physical product (including a physical distribution medium), accompanied by a written offer, valid for at least three years and valid for as long as you offer spare parts or customer support for that product model, to give anyone who possesses the object code either (1) a copy of the Corresponding Source for all the software in the product that is covered by this License, on a durable physical medium customarily used for software interchange, for a price no more than your reasonable cost of physically performing this conveying of source, or (2) access to copy the Corresponding Source from a network server at no charge.

c) Convey individual copies of the object code with a copy of the written offer to provide the Corresponding Source. This alternative is allowed only occasionally and noncommercially, and only if you received the object code with such an offer, in accord with subsection 6b.

d) Convey the object code by offering access from a designated place (gratis or for a charge), and offer equivalent access to the Corresponding Source in the same way through the same place at no further charge. You need not require recipients to copy the Corresponding Source along with the object code. If the place to copy the object code is a network server, the Corresponding Source

may be on a different server (operated by you or a third party)
that supports equivalent copying facilities, provided you maintain
clear directions next to the object code saying where to find the
Corresponding Source. Regardless of what server hosts the
Corresponding Source, you remain obligated to ensure that it is
available for as long as needed to satisfy these requirements.

e) Convey the object code using peer-to-peer transmission, provided
you inform other peers where the object code and Corresponding
Source of the work are being offered to the general public at no
charge under subsection 6d.

A separable portion of the object code, whose source code is excluded
from the Corresponding Source
as a System Library, need not be
included in conveying the object code work.

A "User Product" is either (1) a "consumer product", which means any
tangible personal property which is normally used for personal, family,
or household purposes, or (2) anything designed or sold for incorporation
into a dwelling. In determining whether a product is a consumer product,
doubtful cases shall be resolved in favor of coverage. For a particular
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1.267 gawk 4.1.3

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<one line to give the program's name and a brief idea of what it does.>
Copyright (C) <year> <name of author>

This program is free software: you can redistribute it and/or modify
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(at your option) any later version.

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Also add information on how to contact you by electronic and paper mail.

If the program does terminal interaction, make it output a short
notice like this when it starts in an interactive mode:

<program> Copyright (C) <year> <name of author>
This program comes with ABSOLUTELY NO WARRANTY; for details type `show w'.
This is free software, and you are welcome to redistribute it
under certain conditions; type `show c' for details.

The hypothetical commands `show w' and `show c' should show the appropriate
parts of the General Public License. Of course, your program's commands
might be different; for a GUI interface, you would use an "about box".

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1.268 gawk 4.0.0

1.268.1 Available under license :

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Version 2, June 1991

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you. You must make sure that they, too, receive or can get the source
code. If you link a program with the library, you must provide
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designated libraries. This license is quite different from the ordinary
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 The reason we have a separate public license for some libraries is that
they blur the distinction we usually make between modifying or adding to a
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changing the library, is in some sense simply using the library, and is
analogous to running a utility program or application program. However, in
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derivative of the original library, and the ordinary General Public License
treats it as such.

 Because
 of this blurred distinction, using the ordinary General
Public License for libraries did not effectively promote software
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concluded that weaker conditions might promote sharing better.

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function must
be optional: if the application does not supply it, the square
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This option is useful when you wish to copy part of the code of
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END OF TERMS AND CONDITIONS

Appendix: How to Apply These Terms to Your New Libraries

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To apply these terms, attach the following notices to the library. It is

safest to attach them to the start of each source file to most effectively
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<one line to give the library's name and a brief idea of what it does.>
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<signature of Ty Coon>, 1 April 1990
Ty Coon, President of Vice

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Some devices are designed to deny users access to install or run modified versions of the software inside them, although the manufacturer can do so. This is fundamentally incompatible with the aim of protecting users' freedom to change the software. The systematic pattern of such abuse occurs in the area of products for individuals to use, which is precisely where it is most unacceptable. Therefore, we have designed this version of the GPL to prohibit the practice for those products. If such problems arise substantially in other domains, we

stand
ready to extend this provision to those domains in future versions
of the GPL, as needed to protect the freedom of users.

Finally, every program is threatened constantly by software patents.
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software on general-purpose computers, but in those that do, we wish to
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make it effectively proprietary. To prevent this, the GPL assures that
patents cannot be used to render the program non-free.

The precise terms and conditions for copying, distribution and
modification follow.

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1. Source Code.

The "source code" for a work means the preferred form of the work for making modifications to it. "Object code" means any non-source form of a work.

A "Standard Interface" means an interface that either is an official standard defined by a recognized standards body, or, in the case of interfaces specified for a particular programming language, one that is widely used among developers working in that language.

The
"System Libraries" of an executable work include anything, other than the work as a whole, that (a) is included in the normal form of packaging a Major Component, but which is not part of that Major Component, and (b) serves only to enable use of the work with that Major Component, or to implement a Standard Interface for which an implementation is available to the public in source code form. A "Major Component", in this context, means a major essential component (kernel, window system, and so on) of the specific operating system (if any) on which the executable work runs, or a compiler used to produce the work, or an object code interpreter used to run it.

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available free
programs which are used unmodified in performing those activities but which are not part of the work. For example, Corresponding Source includes interface definition files associated with source files for the work, and the source code for shared libraries and dynamically linked subprograms that the work is specifically designed to require, such as by intimate data communication or control flow between those subprograms and other parts of the work.

The Corresponding Source need not include anything that users can regenerate automatically from other parts of the Corresponding

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in blind modecompcmdlen too longnetbsdunknown disk type nameonly device specifications of form <type><number><lowercase letter> are supportedonly com0-com3 are supportedkFreeBSD./boot/zfs/zpool.cacherawno FreeBSD loadedtype=elf64 kernelelf kernelzfsgzioLoad kernel of FreeBSD.FILEkfreebsdLoad kernel of OpenBSD.kopenbsdLoad kernel of NetBSD.knetbsdLoad FreeBSD env.kfreebsd_loadenvLoad FreeBSD kernel module.kfreebsd_moduleLoad NetBSD kernel module.knetbsd_moduleLoad NetBSD kernel module (ELF).Load FreeBSD kernel module (ELF).kfreebsd_module_elfLoad kOpenBSD ramdisk.kopenbsd_ramdiskwdfdsdcdvndrdno-smpDisable SMP.no-acpiDisable ACPI.asknameAsk for file name to reboot from.haltDon't reboot, just halt.configChange configured devices.kdbEnter in KDB on boot.minirootquietDon't display boot diagnostic messages.singleBoot into single mode.verboseBoot with verbose messages.debugBoot with debug messages.silentSuppress normal output (warnings

remain).rootSet root device.DEVICEserialUse serial
console.[ADDR|comUNIT][,SPEED]wdXYcomUNIT[,SPEED]dualDisplay output on all consoles.cdromUse CD-ROM as root.Invoke user configuration routing.gdbUse GDB remote debugger instead of DDB.muteDisable all boot output.nointrpauseWait for keypress after every line of output.dfltrootUse compiled-in root device.premature end of file %sinvalid arch-independent ELF magicinvalid arch-dependent ELF magicno symbol table_DYNAMICdynamic = %llx
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94$s=HI$LAYHAZ1[A\A]IA^]AHH}H0LHHL9tDHH}H;u!IU1HH=I$1H)HH<HH1ZY[A\A]A^]HUHAVIAUAT
SHt9HH8uH8u%H1H[A\A]A^]uHI>HIHtIHx@uHAHNHH8LHLI8tH
HLA[A\A]A^]HUHAWAVAUATASHHHt H8t+H1HH[A\A]A^A_]Eu'H1H1E1NH;
HIHtLh@1M#HA}HcHHMcHLHLL9II
LAIH@Mt+I9s@ t
uH8"uH@IA?#t}=LAHtmA?tdHHx"HMtHHEHL1HHHt9HuHEHH}HtMtM.HHMtHLH[A\A]A^A_]HUHAWAV
IAUATASHHhI>H1HHEu"H1H<H; HIHHIIEHuHLHH3LIHHHHxHE1LIHLI$^AG
LH%HHMOHI$E1H31LHtMAW4HLH9s<Iw'PAI9rI@PH9sHAH
LEtH3@tI$H8I$HHuHI}H)HH}HE1E1HxHI+$LHHRH8?HI$IHHxI?HLHHH8HIW 8uH
H1%HHLHHMOHI$E1H31LHtCAG@Hk8LH9s2w#HB%H9sH@HB(H9sHAH8EtH3@tI$H8I1LHHM$HIAI$H
HuHI}H)HH}HE1E1HxHI+$LHHuUH8uFHI$IHHxI?H1HHLE1E11LDHDHH@HuLHH@t<H8gHx1HH>HH}tH
EU%f}HtA
%1AH=w"H1HMUHHHHtHHUE1H;Lxt"HtHHHH)HxHHI}HuH)Hu<HH}MLxDHHMLHHLHHHH%HH;tHI>H
h[A\A]A^A_]1tH9uHUHAWAVAUAATISHH(Ht9HH8uH8u+H1HH([A\A]A^A_]EHHHHEHIHILLLEHH1IAH
HIHtK`SXHsLDC\1AH1HI|$HI
AHHEHHHH@HH@H$IHuHH8HI$HH}HS@HHHA}HC@M<$/H}HEHHtHHEHhIHu
A}usWHxOHuH1EEx`HA@XEA@\HHtL
LHLI$HC@HH%I$HHAEH([A\A]A^A_]U1HAUIATHuSHHEHAutH}LHHD[A\A]]U1HAWIAVH}HuAUIATS
HXHAHc]AEHHkuH uHHMHIMHIA}HuHP1H}HUHuHUHAA}DEHUu
DEH|1HDE1HHHIAAMLH t1tLHAHX[A\A]A^A_]HUHAWAVAUATSHHI1IHt!HrtHL1H
HL1HHH0HuIHI<$THH}ILh$IMIHt?CHSI~HsH}ABAFAH}H{HHL)AFI11HI1AFHE111H11HM)HEAIGAGA
GHH
AGHH0Ew H
AG HHuAGI$H]H1HH0He[A\A]A^A_]HUHAWAVAUATSHHPHHHHtY8tTH1HIM
L11HLAHH11HAEHHHH}HHEE10HPDXH\EfEfdHHHPEgEjEhEkEiElHt0HHH1H8IE1IHtHAHDHk\HIHuHb
D HAEIHtHpHHk\I|Ak\LHLHRHH(IE1E1IHt$HJtNd!I Nd!IHAHHuII>H8IcH8ILHHH}M?N
HE(IIMt]LH(IH)8IwL0ADAGIWAEBAELAMoM?H(L0j
HujAI>AHY^HH}H}IHE111I11HHD}1D}EAEAUAE1AE8AHEeH
AEHH0 HuH
HAEH1I>H0He[A\A]A^A_]HUAHHAWAVAUATISHHHHHDH(HH;8u"H;/HLhHupL+kH HHHH8HHH8tH
Hx1PHHLHOIIAHP1AID$t;1HID$HHAHAID$1HIILHA1IA%ID$HHHLHIHu!H1HHAA1HAIA
H?,u>H1HHAAtHHAIHAI~
@v"H&1HNH1HHH0H8HLg(MHGAHtxuDo IT$(E1HHt
LxH@(ID$LHW(1H8H@HHH841Lg(H\D\L1HPH@(Hu@LH`HHIDI@ID$HxHh@HpHHHA4H\
A 1HID$0Ht}HHxHu>@HHfXfA+I|$(uHID$0HxtA$D
HAHHHH1HHH[A\A]A^A_]HUHAWIAVAUATISH8HuHHHUPA$JHGXH=HEE1IKHtxIHAH}HHHIuDHAH
E
HuHEHHHUr@v(HIIrHza D IG1H}x`HIGHxhHH}HHt&H1H-
1HE1HuIHxH}AAwH}%?,u0H1HuH}AH%E1DEDHUHuEHA$ 2HuEHEA$$Hu}Hu-
H1HHH8[A\A]A^A_]UT1HHAWAVH|AUIATS1HET|EHIMtQI<$ LHu.I<$ t$IH
AI|$IAJ\3HMd$0HtHHHH)H8HH111HH1Ht!HqtHT2H HT2HH
HHHHH)IA?tH0IHHH8IUH8HQH8HMuIHLI]L(HHH; HHH3~ H
H(IAH(HH(IHHHvH(H(=HsAH(HH(HDH(H[07LL9(tH(HXDuH8HLHIMAPIpHHpttu+UAA?tHpTA?IUtHPDP?I

@L HHH(HHL H(IIHH)A?t
HHHHMH9L)L)D]IHL)LIE11HEHA?I1H8AA`jI?j H0H^_H0HH0IHE111H(11HPH01HHL)LLL H H 1IIL$LH
HH=uH(HpH@HH8H8HHHH H H`AE@AGIEAGH1H8HH@X1 AH8AxH0j
I?HjZYH0HH0IHE111H11HI|$$TH|H8 H<H8PA$
ADADHH1HIT$$H0A\$HADEADIEAD$
H1I?H0He[A\A]A^A_]HUHAWAVIAUAATSHH8Hu/LEDMHtHXIH}HILIDIHAHPAEH8tQHEH}HEEHEAHu
PAHuAHu8H}AHuPAusHuAu^HuAuIE1E1A9~I<HAEdEDHuHtZHE1HEIIA9~ I4LAI<HAL
L`A$H}HtEEH8[A\A]A^A_]HUHAWAVAUAATISH8Ht9HH8uH8u+H1HH8[A\A]A^A_]EuH1GI<$HIHHHH@
HIHuHH8HIHH}HS@HHHA?DIL$IEtILUI|$HHHMHMLUuIDILLPAEEDK@MLHUI<$uIHC@HH%IHHAH
8[A\A]A^A_]HUHAWAVAHAUIATSHHHLDHIHILHI8M 31I}AVHLHHMIMEAAHHEE)H%
I}HHH;IULHH8Hu
HHuIADHuADHuA|H1IAHHtMHHt+H@(Ht"HP(D
HtED"AAAAAHAAH1;H1AIHHHHHtiHx@tbHHxHuDHuLS@u6H}Ht-
1HH}HHAAHA1HC,HHH[A\A]A^A_]UHAUIATIHSHPHL1IIHHL1IIHHHL1IIHHHE11HHHHHE11IHHHHLE
11HHHLE11HHHE11HHHH1E1HHHHHHLHZ[A\A]]UHSHPHH8HH8HH8HHH8HH8HH8HH8HH8HH8Z[H]H
UHAVIAUIHSLHH}H}HtNHHLH9t5u*HLHH[A]A^]1H[A]A^]UHAWIAVAUIATISH(Hu1H}AHH}4LIAH4tC
H?HUH(1H[A\HA]A^A_]A<$ELFuA|$uA|$tHA|$t+HH(1H[A\A]A^A_]HuLHAt$.}HIEHtAt$
H}AHuH]AT$.IuUH}AAL$.HEHH9t3Hu#HU1HHH([A\A]A^A_]U1HAWAVAUIHMATSHHHhHhHXHUHXH
EHHtH}HLe4HuHULtLH9sxt'HH1HMPHHuHDpPHIAD`LAD$dADAEIHD`HADHH}DxPHCD<HhI|D3AHt`
DHHhIHPHAHPH9upHdLHPHhAHPHu*DdHBHhHPHLAL9uD`E1dHXHHHP;MHHHt
LE9rXDC1HHHIDEAHuHu4HxHuH|hH}Hhu|I]H[A\A]A^A_]HUHAWAVMAUIHMATSHDM
HUH`1HHH`HuIuYHxH}H8HEH|H}HPH}xHPHHH1H9sDAEtAtDAL9IBH4I}IH9HB|HHuHHHHLHHsHH}Lh
LPHXExHPHI9EOEAGPAG
HDhHHIP1AAZEGAWYt8HXLI+HAOH`HIuHt)HXLI+>1HLHHAGAWHLH9hHChHhEIHXLI+1IuA4H`IHAH
hM\$4MHXDxII9H`LBELI+LhHLIuALhMIDxHXDD|H`D)EELELMLI+LhHIuADI}MLhIMD|HDD)EELHMME
)HH}u#IUH`LHHHHe[A\A]A^A_]HUHAWAVAUIHxATSHHH@1HhH@HxHhHUt!HHxHtH}HLxu(UMtHI<I9
sAt%IhLHhAWAGHu8IHP@X8\X\HHD4HHIEHHHHH`HHHH}IH4HuH`EHH4EEA1fCLC
H"HCUtLH9saH0HHAH0I9uEt4#HP1H9uEt\D4CCEHHAwHhIAHtI8HHhIH8AH8H9uGHPHhpAHunDX\HhH4
LAL9t1u>H@HHHuHhLHhu!HHH`HHIUH[A\A]A^A_]U1HAWAVAUATSHHHHUH@HMHEHHpH`LXtH}A
H}HuHH}u#UHuHH9sxtHHHPIIDpTH$HPH@<8ATHhHAHxHDHpIAHtUHhHxIHpAHhH9tHx8HhHAIHu
Hx"<HpAHu!HxALAHHhHpLAHhH9tYHxALAHH`H1H[A\HA]A^A_]LxE11xD)T9sAFufA>t_LHpHIAHpA>H
IDLHpAHpMDHtMu.PIlHtMuHxIIAt>HxALAH1H[A\HA]A^A_]JHXHxHBHHH@%H)HXHHHHBAGH@%H)
HXHHAALAH[A\A]A^A_]UHAWIAVAUIATISH(Hu1H}AHH}@LIAH@tCH?HUH(1H[A\HA]A^A_]A<$ELF
uA|$uA|$tHA|$t+HH(1H[A\A]A^A_]HuLHAt$:H}HIEHtIt$(H}AHuH\AT$:IuHUH}AHAD$:HEH9t3Hu#HU1HH
H([A\A]A^A_]HUHAWAVAUIHxATI1SH<IHUHhIuHxHhL`HuH}H}HuHLxHHHLLH9s%L@
MtHP0HtHL
HH!LHH`HHH)H%HuHLHH}IMHH@EHELI9SMN M:IF0HtJT III!MfEHRHHIP1AH@LH)HA~HPIF
Y^HXIEIvHhHHHHt`HXHPHHhHXH9tXHHHHt!HX1HPHMf
EI<EIMIH`A)I$HH%HI}Hu0@HuHuULU
hHxHhHe[A\A]A^A_]U1HAWAVAUATSHHHXHXHPHUHPH8HhHhHAHpH}HALh@HuHAuHpLHHLH9sxt'
HH1HmP(HHHuHLh H0HH8IIDMt HHH(CD5HH@H8H@HH
HHHIHAH}EHLx0HH@HXLIHEL+AHtOHLHXHHL9umHE(HXL2H@AH@HuHD89LbLHXHLL9uIdHD8EH
P1HHH;LLt"HHAHHHDHL9r[LC1HHHILEAHuHAu7HxHAuHuAHhHEuHEH8HH%HHD[A\A]A^A_]HUHA
WAVAUI1ATSHHHhHhH@HUH@HpHpt!HHpHxH}HLpu*uHxMHHI<I9sAt%IhLHhAW(IG HuH8IHPH@
H08\0\HHD@HHIEHHHHH`HHHH}IH@HuH`EHH@EEAfC11HCLSHC@UHxHLH9seH(HHAH(UI9uHxHH
@$HP1H9uHx\HHD@HCHHCHIwHhIAHtJ8HHhIH8AH8H9uHHPHhHpAHunD0\HhH4LAL9t1u>H@HHHuHh
LHhu!HHH`HHIUH[A\A]A^A_]U1HAWAVAUATSHHHHUH@HMHEHHpHhL`t
H}ADH}HuHH}Au%uHMHHHHH9sztHH%HZ B(ILrHXHZ8HHPHXH@

H8HH0ADXLHxHHpDHHtCHxLHpIAL9tHxD0LHHu
Hx+8HpHHu"HxAHAHD8HpLHAL9uDX1E1E1DPLxsHxAHAHD8EHhH1H[A\HA]A^A_]AD$tPDID9rA<$tX
HHHDhDpA<$HHMDHDpDhXMDMoMf
MtMuHxIII}t>HxAHAH1H[A\HA]A^A_]IFH`H@HxHIFHH%H)H`HHHHAIEH@%H)H`HHBAHAHD[A\A]A^
A_] @12abcdmqsvxzrh@abcsdrh @ DhaCcdgmnpqrsvsizeaddrtypename %-18s %-18s%14s%14s
%-18s 0x%08x 0x%08x
filename expectedyou need to
load the kernel firstno kOpenBSD loadedyour kOpenBSD doesn't support ramdiskyour kOpenBSD supports ramdisk only up to %lu bytes, however you supplied a %lu bytes onepremature end of file %sonly FreeBSD supports moduleonly ELF kernel supports moduleonly FreeBSD supports environmentkFreeBSD.%syour CPU does not implement AMD64 architecturekern_start = %lx, kern_end = %lx
bsdloader/i386/bsd.cinvalid arch-dependent ELF magicinvalid a.out headerload address below 1Mno NetBSD loaded %-18s%14s%14s%14s
%-18s 0x%08x 0x%08x 0x%08xknetbsd_module_elf%u entries in smap
textgfxpayload%s;800x600800x600Booting in blind modecompcmdlen too longnetbsdunknown disk type nameonly device specifications of form <type><number><lowercase letter> are supportedonly com0-com3 are supportedkFreeBSD./boot/zfs/zpool.cacherawno FreeBSD loadedtype=elf64 kernelelf kernelzfsgzioLoad kernel of FreeBSD.FILEkfreebsdLoad kernel of OpenBSD.kopenbsdLoad kernel of NetBSD.knetbsdLoad FreeBSD env.kfreebsd_loadenvLoad FreeBSD
kernel module.kfreebsd_moduleLoad NetBSD kernel module.knetbsd_moduleLoad NetBSD kernel module (ELF).Load FreeBSD kernel module (ELF).kfreebsd_module_elfLoad kOpenBSD ramdisk.kopenbsd_ramdiskwdfdsdcdvndrdno-smpDisable SMP.no-acpiDisable ACPI.asknameAsk for file name to reboot from.haltDon't reboot, just halt.configChange configured devices.kdbEnter in KDB on boot.minirootquietDon't display boot diagnostic messages.singleBoot into single mode.verboseBoot with verbose messages.debugBoot with debug messages.silentSuppress normal output (warnings remain).rootSet root device.DEVICEserialUse serial console.[ADDR|comUNIT][,SPEED]wdXYcomUNIT[,SPEED]dualDisplay output on all consoles.cdromUse CD-ROM as root.Invoke user configuration routing.gdbUse GDB remote debugger instead of DDB.muteDisable all boot output.nointrpauseWait for keypress after every line of output.dfltrootUse compiled-in root device.premature end of file %sinvalid arch-independent ELF magicinvalid arch-dependent ELF magicno symbol
table_DYNAMICdynamic = %llx
bsdloader/i386/bsd32.cloading section to %x, size %d, align %d
elf modulerd_root_imagerd_root_sizeunexpected size of rd_root_sizepremature end of file %sinvalid arch-independent ELF magicinvalid arch-dependent ELF magicloading section to %x, size %d, align %d
bsdloader/i386/bsd64.celf obj moduleno symbol table_DYNAMICdynamic = %llx
rd_root_imagerd_root_sizeunexpected size of
rd_root_sizeLICENSE=GPLv3+aoutbootcpuidcryptoelfextcmdgcry_md5mmaprelocatorserialvideobsd2*4)NEcv&3I_:}4CZlx%B(<PG:r~*"8HWi(7|J>*R0ALi)6VHWsgrub_mod_initgrub_mod_finigrub_strlengrub_netbsd_load_elf_meta64grub_efi_finish_boot_servicesgrub_aout_get_typegrub_puts_grub_strncmpgrub_strtoullgrub_efi_system_tablegrub_env_update_get_sortedgrub_strcpygrub_elf_is_elf32grub_loader_is_loadedgrub_strrchrgrub_ns8250_hw_get_portgrub_dl_loadgrub_elf32_load_phdrsgrub_relocator32_bootgrub_freebsd_load_elfmodule32grub_elf_filegrub_xasprintfget_virtual_current_addressgrub_video_set_mode_gcry_digest_spec_md5grub_memmovegrub_device_opengrub_relocator_alloc_chunk_aligngrub_elf64_get_shnumgrub_disk_readgrub_unregister_extcmdgrub_loader_unsetgrub_dl_refgrub_mmap_iterategrub_file_seekgrub_relocator_unloadgrub_errnogrub_memsetgrub_openbsd_find_ramdisk32grub_register_command_priogrub_elf_is_elf64grub_video_get_driver_idgrub_mmap_get_lowergrub_mmap_get_uppergrub_freebsd_load_elfmodule_obj64grub_printfgrub_unregister_commandgrub_file_readgrub_freebsd_add_meta_modulegrub_elf_closegrub_print_errorgrub_zallocgrub_strcmpgrub_strchrgrub_elf64_loadgrub_mallocgrub_relocator64_bootgrub_file_closegrub_file_opengrub_real_dprintfgrub_freebsd_load_elf_meta32grub_call

ocgrub_freebsd_load_elf_meta64grub_netbsd_load_elf_meta32grub_device_closegrub_elf64_load_phdrsgrub_open
bsd_find_ramdisk64grub_fs_probegrub_relocator_newgrub_crypto_hashgrub_errorgrub_video_get_info_and_finigr
ub_cpuid_has_longmodegrub_freegrub_dl_unrefgrub_register_extcmdgrub_env_setgrub_gettextgrub_memcmpgrub
_loader_setgrub_verify_stringgrub_elf32_get_shnumgrub_elf32_loadgrub_env_getgrub_strtoulgrub_bsd_add_meta
grub_aout_loadget_physical_target_addressgrub_elf32_get_phnumgrub_relocator_alloc_chunk_addrN<v)phh p
3RCS
b{2p4,?pN5pERh_kxO(KK]K!2N?\)y>K4)>K+?*Qj]+HK?>.)<N[j1v]hK
KK9?\<4:#2NQ`NN>)%$ * K) KB ?Z Id y >

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Z2`o9)-?R`m^48'XO`v>L&$T<d)* @ZDNbp^h{ 0/8WX)N,.KLZ7)`9<X)iZNZp ?Mp^3 Kb\| 0/
3An)?#DJ*eoZ[SgY)3DKU"SZ`J9H E U T)
!@!)Q!d!~!!!Y!#!"*K"U"Se"uv"K"Y")"#ZL#Zn#~#T##`##)#*#P:$ST$$$$$Zp%>%U%b%z%^%%%%S&
&3&f&&&&p&Q'k""*(G(](\{((*%)2)a)r)=)))* -*D*d*w*T*H**.+<+9F+[+Z+a,Lp,),,U,-]!-+-:-I-HZ-Ky--?-)---^-
.4..M.W.S.5.>../)(/2/F/P/d/////5/?00C%0AG0Z0P00E
1H61HQ1_191
1H1N1711#1T1T1)2*252P@2Q2[2e2.o22`22 2-2@226212M282,2U33g30+353x?3,I3S3(g3q3{3
33333h333%334<
4414#<4@K48Z40i43s4(4 444444'5)54-
5)G5JQ5Kv5'545)5J5K#6c76L6Ki6V6B6)6)7J7Kn7n57V7Z77Kb8^}88'84#9)d9)9J9K9999999@:Z9:Zf:N:n5;V=;]
;^;Q<b<l<v<@<4<*C=4p=4=4)> F>5_>N>A>n5?N?)-
?Vu?N@^@'@A'#A4[A)A)AJAKAZANWBn5BVBNBNB<JC'jC4C)
D)IDJVDKD D9D+ EN)ENXE8 eEKE';F4NF)qFX ~FKFq F FKF!GB7G)nG)GX GKGEH!H^H I +I 5I ?I@I'I)I4I)IX
JK'J*eJ ~J5JZJN:KE\K!KZK
KK[L^yLL'L4M).M4BM
NM)rMX |MKM9M
M M M@NZ3NZ`NNNENNO)&O!pONP^P%PQ"Q4`Q)Q)QX QKQZQN\RER!RNRNS<SS'uS4S'S)4T)_TX lTKT/
T9T=
T98UNGUNvUJ

UKMP S0VpY]`gt|0@Xh F0MHdXlp`pFM(8@(P`h-=B0@Xbhh| 0HXp$-
FMdl.symtab.strtab.shstrtab.rela.text.rela.rodata.rodata.str1.1.data.module_license.bss.moddeps.modname
@V@x?+`V8 &@32]j
BhHhX h] hGfghph XqXo

1.270 speexdsp 1.2.1

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1.271 heimdal 1.0

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be misrepresented as being the original source or, if binaries,
compiled from the original source. Such altered versions also must not
be misrepresented as being Info-ZIP releases--including, but not
limited to, labeling of the altered versions with the names "Info-ZIP"
(or any
variation thereof, including, but not limited to, different
capitalizations), "Pocket UnZip," "WiZ" or "MacZip" without the
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prohibited from misrepresentative use of the Zip-Bugs or Info-ZIP
e-mail addresses or the Info-ZIP URL(s), such as to imply Info-ZIP
will provide support for the altered versions.

4. Info-ZIP retains the right to use the names "Info-ZIP," "Zip," "UnZip,"
"UnZipSFX," "WiZ," "Pocket UnZip," "Pocket Zip," and "MacZip" for its
own source and binary releases.

This is the Info-ZIP file COPYING (for UnZip), last updated 17 Jul 2000.

FIRST NOTE:
This file contains some details about the copyright history of
contributions to the UnZip project.
Additionally, it summarises some exceptions to the general BSD-like
copyright found in LICENSE that covers our generic code and most of
the system specific ports.
Please read LICENSE first to find out what is allowed to do with
Info-ZIP's UnZip code.

- -

There are currently two explicit copyrights on portions of UnZip
code (at least, of which Info-ZIP is aware):
Jim Luther's Mac OS File Manager interface code; and Christopher Evans'
MacBinaryIII coding code (for the MacOS port).. These copyrights
are discussed in more detail below.

All remaining
code is now (starting with UnZip version 5.41) covered
by the new Info-ZIP license. For details, please read the acompaning
file LICENSE. The terms and conditions in this license supersede the
copyright conditions of the contributions by Igor Mandrichenko
(vms/vms.c), Greg Roelofs (zipinfo.c, new version of unshrink.c),
Mike White (Windows DLL code in "windll/*"), Steve P. Miller (Pocket
UnZip GUI "wince/*"), and Mark Adler (inflate/explode decompresseion
core routines, previously put into the public domain). All these
Info-ZIP contributors (or "primary" authors) have permitted us to
replace their copyright notes by the Info-ZIP License.

Frequently Asked Questions regarding (re)distribution of Zip and UnZip
are near the end of this file.

There are no known patents on any of the code in UnZip. Unisys
claims a patent on LZW encoding and on LZW decoding _in an apparatus
that performs LZW encoding_, but the patent appears to exempt a stand-
alone decoder (as in UnZip's unshrink.c). Unisys has publicly claimed
otherwise, but the issue has never been tested in court. Since this
point is unclear, unshrinking is not enabled by default. It is the
responsibility of the user to make his or her peace with Unisys and
its licensing requirements. (unshrink.c may be removed from future
releases altogether.)

The original unzip source code has been extensively modified and
almost entirely rewritten (changes include random zipfile access
rather than sequential; replacement of unimplode() with explode();
replacement of old unshrink() with new (unrelated) unshrink(); re-
placement of output routines; addition of inflate(), wildcards,
filename-mapping, text translation, ...; etc.). As far as we can
tell, only the core code of the unreduce method remained substantially
similar to Mr. Smith's original source. As of UnZip
5.42, the complete
core code is now covered by the Info-ZIP Licence. Therefore, support
for the reduce method has been removed.
The drop of the reduce method should only affect some test archives,
reducing was never used in any publically distributed Zip program.
For pathologic cases where support for reduced archive entries is
needed, the unreduce code copyrighted by Samuel H. Smith is available
as a separate distribution (the restricted copyright of this code is
cited below in the "historical" section).

The following copyright applies to the Mac OS File Manager interface code
(macos/source/macstuff.[ch]), distributed with UnZip 5.4 and later:

```
  * MoreFiles
  *
  * A collection of File Manager and related routines
  *
  * by Jim Luther (Apple Macintosh Developer Technical Support Emeritus)
  * with significant code contributions by Nitin Ganatra
  * (Apple Macintosh Developer Technical Support Emeritus)
  * Copyright  1992-1998
Apple Computer, Inc.
  * Portions copyright  1995 Jim Luther
  * All rights reserved.
  * The Package "More Files" is distributed under the following
  * license terms:
  *
  *         "You may incorporate this sample code into your
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  *          having made changes. If you're going to
  *          redistribute the source, we require that you make
  *          it clear in the source that the code was descended
  *          from Apple Sample Code, but that you've made
  *          changes."
```

The usage terms of this copyright note are compatible with the

Info-ZIP license, they do not add further restrictions.

The following
copyright applies to the Mac OS "macbin3" decoding code
(extra field compatibility with ZipIt):

```
  *  MacBinaryIII.h
  *
  *  Copyright 1997 Christopher Evans (cevans@poppybank.com)
  *
  *  Basic encoding and decoding of Macintosh files to the
  *  MacBinary III spec.
  * ---------------------------------------------------------------------
  * This source is copyrighted by Christopher Evans (cevans@poppybank.com)
  * (available at ftp://ftp.lazerware.com/MacBinaryIII_src_C.sit
  * homepage of Leonard Rosenthol  leonardr@netcom.com)
```

This copyright note does not contain any usage terms. So, we assume
that this code is freely reusable until we are proved wrong...

The remaining copyright notes have been superseeded by the new
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original authors. They are cited here for historical reasons,
only:

The following copyright applies to the full-featured unreduce.c
(now distributed separately):

```
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  *
  * Do not distribute modified versions without my permission.
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  * If you use this in your own program you must distribute source code.
  * Do not use any of this in a commercial product.
```

Regarding the first stipulation, Mr. Smith was tracked down in southern
California some years back [Samuel H. Smith, The Tool Shop; as of mid-
May 1994, (213) 851-9969 (voice), (213) 887-2127(?) (subscription BBS),
71150.2731@compuserve.com]:

"He says that he thought that whoever contacted him understood that
he has no objection to the Info-ZIP group's inclusion of his code.
His primary concern is that it remain freely distributable, he said."

Despite the fact that our "normal" code has been entirely rewritten

and by default
no longer contains any of Mr. Smith's code, Info-ZIP
remains indebted and grateful to him. We hope he finds our contributions as useful as we have his.

Note that the third and fourth stipulations still apply to any company that wishes to incorporate the unreduce code into its products; if you wish to do so, you must contact Mr. Smith directly regarding licensing.

The following copyright applied to most of the VMS code in vms.c, distributed with UnZip version 4.2 and later:

```
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```

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```
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  * any purpose whatsoever, subject to the conditions noted in the
  * Frequently Asked Questions section below, plus one additional
  * condition:  namely, that my name not be removed from the source
  * code.  (Other names may, of course, be added as modifications
  * are made.)  Corporate legal staff (like at IBM :-) ) who have
  * problems understanding this can contact me through Zip-Bugs...
```

The following copyright applied to the Windows DLL code (windll/*), distributed with UnZip version 5.2 and later:

```
  * Copyright (c) 1996 Mike White.
  * Permission is granted to any individual or institution to use,
  * copy, or redistribute this software so long as all of the original
  * files are included, that it is not sold for profit, and that this
  * copyright notice is retained.
```

The following copyright applied to the Windows
CE GUI port, ``Pocket
UnZip,'' distributed with UnZip version 5.3 and later:

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* written by the Info-ZIP group, are copyrighted 1997 by Steve P.
* Miller. The product "Pocket UnZip" itself is property of the
* author and cannot be altered in any way without written consent
* from Steve P. Miller.

The remaining code was written by many people associated with the
Info-ZIP group, with large contributions from (but not limited to):
Greg Roelofs (overall program logic, ZipInfo, unshrink, filename
mapping/portability, etc.), Mark Adler (inflate, explode, funzip),
Kai Uwe Rommel (OS/2), John Bush and Paul Kienitz (Amiga), Antoine
Verheijen (Macintosh), Hunter Goatley (more VMS), Mike White (Windows
DLLs), Christian Spieler (overall logic, optimization, VMS, etc.) and
others. See the file CONTRIBS in the source distribution for a much
more complete list of contributors.
The decompression core code for the deflate method (inflate.[ch],
explode.c) was originally written by Mark Adler who submitted it
as public domain code.

1.273 open-pegasus 5.0.6

1.273.1 Available under license :

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Version 3, 29 June 2007

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1.277 pcre 8.31

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1.278 perl 5.10.0

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The End

1.279 sqlite 3.45.0

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1.280 mtd-utils 1.3.1

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1.281 gdb 5.14

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The reason we have a separate public license for some libraries is that they blur the distinction we usually make between modifying or adding to a program and simply using it. Linking a program with a library, without changing the library, is in some sense simply using the library, and is analogous to running a utility program or application program. However, in a textual and legal sense, the linked executable is a combined work, a derivative of the original library, and the ordinary General Public License treats it as such.

Because of

this blurred distinction, using the ordinary General
Public License for libraries did not effectively promote software
sharing, because most developers did not use the libraries. We
concluded that weaker conditions might promote sharing better.

However, unrestricted linking of non-free programs would deprive the
users of those programs of all benefit from the free status of the
libraries themselves. This Library General Public License is intended to
permit developers of non-free programs to use free libraries, while
preserving your freedom as a user of such programs to change the free
libraries that are incorporated in them. (We have not seen how to achieve
this as regards changes in header files, but we have achieved it as regards
changes in the actual functions of the Library.) The hope is that this
will lead to faster development of free libraries.

The precise terms and conditions for copying, distribution and
modification follow. Pay close attention to the difference between
a
"work based on the library" and a "work that uses the library". The
former contains code derived from the library, while the latter only
works together with the library.

Note that it is possible for a library to be covered by the ordinary
General Public License rather than by this special one.

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A "library" means a collection of software functions and/or data
prepared so as to be conveniently linked with application programs
(which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work
which has been distributed
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included without limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for

making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

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2. You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

a) The modified work must itself be a software library.

b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.

c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.

d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has
a purpose that is entirely well-defined independent of the
application. Therefore, Subsection 2d requires that any
application-supplied function or table used by this function
must
be optional: if the application does not supply it, the square
root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition,
mere aggregation of another work not based on the Library
with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices.

Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy.

This option is useful when you wish to copy part of the code of
the
Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or

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under the terms of Sections 1 and 2 above provided that you accompany
it with the complete corresponding machine-readable source code, which
must be distributed under the terms of Sections 1 and 2 above on a
medium customarily used for software interchange.

If distribution of object code is made by offering access to copy
from a designated place, then offering equivalent access to copy the
source code from the same place satisfies the requirement to
distribute the source code, even though third parties are not
compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the
Library, but is designed to work with the Library by being compiled or
linked with it, is called a "work that uses the Library". Such a
work, in isolation, is not a derivative work
of the Library, and
therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library
creates an executable that is a derivative of the Library (because it
contains portions of the Library), rather than a "work that uses the
library". The executable is therefore covered by this License.
Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file
that is part of the Library, the object code for the work may be a
derivative work of the Library even though the source code is not.
Whether this is true is especially significant if the work can be
linked without the Library, or if the work is itself a library. The
threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data
structure layouts and accessors, and small macros and small inline
functions (ten lines or less in length), then the use of the
object
file is unrestricted, regardless of whether it is legally a derivative
work. (Executables containing this object code plus portions of the
Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may
distribute the object code for the work under the terms of Section 6.
Any executables containing that work also fall under Section 6,
whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also compile or
link a "work that uses the Library" with the Library to produce a
work containing portions of the Library, and distribute that work

under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

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a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

c) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

d) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

7. You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

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Appendix: How to Apply These Terms to Your New Libraries

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in object code or executable form with such
an offer, in accord with Subsection b above.)

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1.282 ftpd 1.9.4

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the interface presents a list of user commands or options, such as a
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1.285 multipart-parser-c NA

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*/

Found in path(s):
* /multipart-parser-c-master-3-zip/multipart-parser-c-master/multipart_parser.h
* /multipart-parser-c-master-3-zip/multipart-parser-c-master/multipart_parser.c

1.286 wget 1.24.5

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Installing Wireshark on FreeBSD/OpenBSD/NetBSD/DragonFly BSD
==========

1. Berkeley Packet Filter (BPF) requirement
2. Running Wireshark as a non-root user

For general installation instructions, see the INSTALL file, along with the Developer's Guide located at https://www.wireshark.org/docs/ and in the docbook/ directory. Additional BSD specific notes and requirements follow.

1. Berkeley Packet Filter (BPF) requirement

In order to capture packets (with Wireshark/TShark, tcpdump, or any other packet capture program) on a BSD system, your kernel must have the Berkeley Packet Filter mechanism enabled. The default kernel configurations in recent versions of BSD systems have this enabled already. To verify the bpf device is present, look in the /dev directory:

```
ls -l /dev/bpf*
```

You should see one or more bpf devices listed similar to this:

```
crw-------  1 root  wheel
 0,  90 Aug 10 21:05 /dev/bpf0
crw-------  1 root  wheel    0,  91 Aug 10 21:05 /dev/bpf1
```

Packet-capturing programs will pick the first bpf device that's not in use. Recent versions of most BSDs will create bpf devices as needed, so you don't have to configure the number of devices that will be available.

2. Running wireshark as a non-root user

Since the bpf devices are read-only by the owner (root), you normally have to run packet capturing programs such as Wireshark as root. It is safer to run programs as a non-root user if possible. To run Wireshark as a non-root user, you must change the permissions on the bpf device(s). If you are the only user that needs to use Wireshark, the easiest way is to change the owner of each bpf device to your username. You can also add the read/write ability to the group (typically wheel) and add users that need to use Wireshark to the wheel group. Check your operating

system's documentation
 on how to make permanent these changes as they
are often reset upon reboot; if /dev is implemented with devfs, it might
be possible to configure devfs to create all bpf devices owned by a
particular user and/or group and with particular permissions. In
FreeBSD 6.0 and later this can be done by creating an /etc/devfs.rules
file with content such as

 [localrules=10]
 add path 'bpf*' {mode and permissions}

where "mode and permissions" can include clauses such as

 mode {octal permissions}

to set the permissions on the device (e.g., "mode 0660" to set the
permissions to rw-rw-r--),

 user {user}

to set the user who owns the device, or

 group {group}

to set the group that owns the device and adding a line such as

 devfs_system_ruleset=localrules

to /etc/rc.conf. For example, an /etc/devfs.rules file with

 [localrules=10]
 add path 'bpf*' mode 0660 group wheel

will grant read and write permissions on all BPF devices to all users in
the "wheel" group.

1.297 shadow 4.2.1

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1.302 nginx 1.26.2

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Julian Seward, jseward@acm.org
bzip2/libbzip2 version 1.0.8 of 13 July 2019

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The hypothetical commands `show w' and `show c' should show the appropriate parts of the General Public License. Of course, the commands you use may be called something other than `show w' and `show c'; they could even be mouse-clicks or menu items--whatever suits your program.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the program, if necessary. Here a sample; alter the names:

Yoyodyne, Inc., hereby disclaims all copyright interest in the

```
 program `Gnomovision' (a program to direct compilers to make passes
 at assemblers) written by James Hacker.

 <signature of Ty Coon>, 1 April 1989
 Ty Coon, President of Vice

That's all there is to it!
#!perl

=head1 NAME

copyright.t

=head1 DESCRIPTION

Tests that the latest copyright years in the top-level README file and the
C<perl -v> output match each other.

If the test fails, update at least one of README and perl.c so that they match
reality.

Optionally you can pass the C<--now> option to check they are at the current
year. This isn't checked by default, so that it doesn't fail for people
working on older releases. It should be run before making a new release.

=cut

use strict;
use Config;
BEGIN { require './test.pl' }

if ( $Config{usecrosscompile} ) {
 skip_all( "Not all files are available during cross-compilation" );
}

my ($opt) = @ARGV;

my $readme_year = readme_year();
my $v_year = v_year();

# Check that both copyright dates are up-to-date, but only if requested, so
# that tests still pass for people intentionally working on older versions:
if ($opt eq '--now')
{
 my $current_year = (gmtime)[5] + 1900;
 is $v_year, $current_year, 'perl -v copyright includes current
 year';
 is $readme_year, $current_year, 'README copyright includes current year';
```

```
}

# Otherwise simply check that the two copyright dates match each other:
else
{
 is $readme_year, $v_year, 'README and perl -v copyright dates match';
}

done_testing;


sub readme_year
# returns the latest copyright year from the top-level README file
{

 open my $readme, '<', '../README' or die "Opening README failed: $!";

 # The copyright message is the first paragraph:
 local $/ = '';
 my $copyright_msg = <$readme>;

 my ($year) = $copyright_msg =~ /.*\b(\d{4,})/s
    or die "Year not found in README copyright message '$copyright_msg'";

 $year;
}


sub v_year
# returns the latest copyright year shown in perl -v
{

 my $output = runperl switches => ['-v'];
 my ($year) = $output =~ /copyright 1987.*\b(\d{4,})/i
    or die "Copyright statement not found in perl -v output '$output'";

 $year;
}
```

1.305 acpica 20180629

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1.306 golang 1.23.4

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1.308 simple launcher 1.1.0.14

1.308.1 Available under license :

A. HISTORY OF THE SOFTWARE
==========

Python was created in the early 1990s by Guido van Rossum at Stichting Mathematisch Centrum (CWI, see http://www.cwi.nl) in the Netherlands as a successor of a language called ABC. Guido remains Python's principal author, although it includes many contributions from others.

In 1995, Guido continued his work on Python at the Corporation for National Research Initiatives (CNRI, see http://www.cnri.reston.va.us) in Reston, Virginia where he released several versions of the software.

In May 2000, Guido and the Python core development team moved to BeOpen.com to form the BeOpen PythonLabs team. In October of the same year, the PythonLabs team moved to Digital Creations (now Zope Corporation, see http://www.zope.com). In 2001, the Python Software

Foundation (PSF, see http://www.python.org/psf/) was formed, a non-profit organization created specifically to own Python-related Intellectual Property. Zope Corporation is a sponsoring member of the PSF.

All Python releases are Open Source (see http://www.opensource.org for the Open Source Definition). Historically, most, but not all, Python releases have also been GPL-compatible; the table below summarizes the various releases.

Release	Derived from	Year	Owner	GPL-compatible? (1)
0.9.0 thru 1.2		1991-1995	CWI	yes
1.3 thru 1.5.2	1.2	1995-1999	CNRI	yes
1.6	1.5.2	2000	CNRI	no
2.0	1.6	2000	BeOpen.com	no
1.6.1	1.6	2001	CNRI	yes (2)
2.1	2.0+1.6.1	2001	PSF	no
2.0.1	2.0+1.6.1	2001	PSF	yes
2.1.1	2.1+2.0.1	2001	PSF	yes
2.2	2.1.1	2001	PSF	yes
2.1.2	2.1.1	2002	PSF	yes
2.1.3	2.1.2	2002	PSF	yes
2.2.1	2.2	2002	PSF	yes
2.2.2	2.2.1	2002	PSF	yes
2.2.3	2.2.2	2003	PSF	yes
2.3	2.2.2	2002-2003	PSF	yes
2.3.1	2.3	2002-2003	PSF	yes
2.3.2	2.3.1	2002-2003	PSF	yes
2.3.3	2.3.2	2002-2003	PSF	yes
2.3.4	2.3.3	2004	PSF	yes
2.3.5	2.3.4	2005	PSF	yes
2.4	2.3	2004	PSF	yes
2.4.1	2.4	2005	PSF	yes
2.4.2	2.4.1	2005	PSF	yes
2.4.3	2.4.2	2006	PSF	yes
2.4.4	2.4.3	2006	PSF	yes
2.5	2.4	2006	PSF	yes
2.5.1	2.5	2007	PSF	yes
2.5.2	2.5.1	2008	PSF	yes
2.5.3	2.5.2	2008	PSF	yes
2.6	2.5	2008	PSF	yes
2.6.1	2.6	2008	PSF	yes
2.6.2	2.6.1	2009	PSF	yes
2.6.3	2.6.2	2009	PSF	yes

2.6.4	2.6.3	2009	PSF	yes
2.6.5	2.6.4	2010	PSF	yes
3.0	2.6	2008	PSF	yes
3.0.1	3.0	2009	PSF	yes
3.1	3.0.1	2009	PSF	yes
3.1.1	3.1	2009	PSF	yes
3.1.2	3.1	2010	PSF	yes
3.2	3.1	2010	PSF	yes

Footnotes:

(1) GPL-compatible doesn't mean that we're distributing Python under the GPL. All Python licenses, unlike the GPL, let you distribute a modified version without making your changes open source. The GPL-compatible licenses make it possible to combine Python with other software that is released under the GPL; the others don't.

(2) According to Richard Stallman, 1.6.1 is not GPL-compatible, because its license has a choice of law clause. According to CNRI, however, Stallman's lawyer has told CNRI's lawyer that 1.6.1 is "not incompatible" with the GPL.

Thanks to the many outside volunteers who have worked under Guido's direction to make these releases possible.

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==========
Distutils2 Contributors
==========

The Distutils2 project was started by Tarek Ziad and is currently maintained by ric Araujo. Many people have contributed to the project.

distlib has started off using some of the code from distutil2.

If you're making a patch, please add your name below in alphabetical order,
and welcome into the Fellowship of the Packaging!

Thanks to:

- Rajiv Abraham
- Ali Afshar
- David Barnett
- Pior Bastida
- Anthony Baxter
- Erik Bray
- C. Titus Brown
- Francisco Martn Brugu
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- Vinay Sajip
- Victor Stinner
- Alexandre Vassalotti
- Nadeem Vawda
Metadata-Version: 1.0
Name: setuptools
Version: 0.6c9
Summary: Download, build, install, upgrade, and uninstall Python packages -- easily!
Home-page: http://pypi.org/pypi/setuptools
Author: Phillip J. Eby
Author-email: distutils-sig@python.org
License: PSF or ZPL
Description: ==============================
    Installing and Using Setuptools
    ==============================

    .. contents:: **Table of Contents**

    Installation Instructions

Windows
=======

Install setuptools using the provided ``.exe`` installer. If you've previously installed older versions of setuptools, please delete all ``setuptools*.egg`` and ``setuptools.pth`` files from your system's ``site-packages`` directory (and any other ``sys.path`` directories) FIRST.

If you are upgrading a previous version of setuptools that was installed using an ``.exe`` installer,
please be sure to also *uninstall that older version*
via your system's "Add/Remove Programs" feature, BEFORE installing the newer version.

Once installation is complete, you will find an ``easy_install.exe`` program in your Python ``Scripts`` subdirectory. Be sure to add this directory to your ``PATH`` environment variable, if you haven't already done so.

RPM-Based Systems
=================

Install setuptools using the provided source RPM. The included ``.spec`` file assumes you are installing using the default ``python`` executable, and is not specific to a particular Python version. The ``easy_install`` executable will be installed to a system ``bin`` directory such as ``/usr/bin``.

If you wish to install to a location other than the default Python installation's default ``site-packages`` directory (and ``$prefix/bin`` for scripts), please use the ``.egg``-based
installation approach described in the
following section.

Cygwin, Mac OS X, Linux, Other
==============================

1. Download the appropriate egg for your version of Python (e.g. ``setuptools-0.6c9-py2.4.egg``). Do NOT rename it.

2. Run it as if it were a shell script, e.g. ``sh setuptools-0.6c9-py2.4.egg``. Setuptools will install itself using the matching version of Python (e.g. ``python2.4``), and will place the ``easy_install`` executable in the default location for installing Python scripts (as determined by the standard distutils configuration files, or by the Python installation).

If you want to install setuptools to somewhere other than ``site-packages`` or

your default distutils installation locations for libraries and scripts, you
may include EasyInstall command-line options such as ``--prefix``,
``--install-dir``, and so on, following the ``.egg`` filename
on the same
command line. For example::

sh setuptools-0.6c9-py2.4.egg --prefix=~

You can use ``--help`` to get a full options list, but we recommend consulting
the `EasyInstall manual`_ for detailed instructions, especially `the section
on custom installation locations`_.

.. _EasyInstall manual: http://peak.telecommunity.com/DevCenter/EasyInstall
.. _the section on custom installation locations: http://peak.telecommunity.com/DevCenter/EasyInstall#custom-installation-locations

Cygwin Note

If you are trying to install setuptools for the **Windows** version of Python
(as opposed to the Cygwin version that lives in ``/usr/bin``), you must make
sure that an appropriate executable (``python2.3``, ``python2.4``, or
``python2.5``) is on your **Cygwin** ``PATH`` when invoking the egg. For
example, doing the following at a Cygwin bash prompt will install setuptools
for the **Windows** Python found at ``C:\\Python24``::

ln -s /cygdrive/c/Python24/python.exe python2.4
PATH=.:$PATH sh setuptools-0.6c9-py2.4.egg
rm python2.4

Downloads
=========

All setuptools downloads can be found at `the project's home page in the Python
Package Index`_. Scroll to the very bottom of the page to find the links.

.. _the project's home page in the Python Package Index: http://pypi.org/pypi/setuptools

In addition to the PyPI downloads, the development version of ``setuptools``
is available from the `Python SVN sandbox`_, and in-development versions of the
`0.6 branch`_ are available as well.

.. _0.6 branch: http://svn.python.org/projects/sandbox/branches/setuptools-0.6/#egg=setuptools-dev06

.. _Python SVN sandbox: http://svn.python.org/projects/sandbox/trunk/setuptools/#egg=setuptools-dev

---
Using
Setuptools and EasyInstall

Here are some of the available manuals, tutorials, and other resources for
learning about Setuptools, Python Eggs, and EasyInstall:

* `The EasyInstall user's guide and reference manual`_
* `The setuptools Developer's Guide`_
* `The pkg_resources API reference`_
* `Package Compatibility Notes`_ (user-maintained)
* `The Internal Structure of Python Eggs`_

Questions, comments, and bug reports should be directed to the `distutils-sig
mailing list`_. If you have written (or know of) any tutorials, documentation,
plug-ins, or other resources for setuptools users, please let us know about
them there, so this reference list can be updated. If you have working,
tested patches to correct problems or add features, you may submit them to
the `setuptools bug tracker`_.

.. _setuptools bug tracker: http://bugs.python.org/setuptools/
.. _Package Compatibility Notes: http://peak.telecommunity.com/DevCenter/PackageNotes
.. _The Internal Structure of Python Eggs: http://peak.telecommunity.com/DevCenter/EggFormats
.. _The setuptools Developer's Guide: http://peak.telecommunity.com/DevCenter/setuptools
.. _The pkg_resources API reference: http://peak.telecommunity.com/DevCenter/PkgResources
.. _The EasyInstall user's guide and reference manual: http://peak.telecommunity.com/DevCenter/EasyInstall
.. _distutils-sig mailing list: http://mail.python.org/pipermail/distutils-sig/

Credits
---

* The original design for the ``.egg`` format and the ``pkg_resources`` API was
co-created by Phillip Eby and Bob Ippolito. Bob also implemented the first
version of ``pkg_resources``, and supplied the OS X operating system version
compatibility algorithm.

* Ian Bicking implemented many early "creature
comfort" features of
easy_install, including support for downloading via Sourceforge and
Subversion repositories. Ian's comments on the Web-SIG about WSGI
application deployment also inspired the concept of "entry points" in eggs,
and he has given talks at PyCon and elsewhere to inform and educate the
community about eggs and setuptools.

* Jim Fulton contributed time and effort to build automated tests of various

aspects of ``easy_install``, and supplied the doctests for the command-line ``.exe`` wrappers on Windows.

* Phillip J. Eby is the principal author and maintainer of setuptools, and first proposed the idea of an importable binary distribution format for Python application plug-ins.

* Significant parts of the implementation of setuptools were funded by the Open Source Applications Foundation, to provide a plug-in infrastructure for the Chandler PIM application.

In addition, many OSAF staffers (such as Mike "Code Bear" Taylor) contributed their time and stress as guinea pigs for the use of eggs and setuptools, even before eggs were "cool". (Thanks, guys!)

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<signature of Ty Coon>, 1 April 1989
Ty Coon, President of Vice

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The End

1.313 grub 2.12

1.313.1 Available under license :

```
/* Extract the last component (base name) of a file name.

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  along with this program.  If not, see <https://www.gnu.org/licenses/>.  */

#ifndef _BASENAME_LGPL_H
#define _BASENAME_LGPL_H

#include <stddef.h>

#ifndef DOUBLE_SLASH_IS_DISTINCT_ROOT
# define DOUBLE_SLASH_IS_DISTINCT_ROOT 0
#endif

#ifdef __cplusplus
extern "C" {
#endif


/*
 Return the address of the last file name component of FILENAME.
  If FILENAME has some trailing slash(es), they are considered to be
  part of the last component.
  If FILENAME has no relative file name components because it is a file
  system root, return the empty string.
  Examples:
          FILENAME      RESULT
          "foo.c"       "foo.c"
          "foo/bar.c"   "bar.c"
          "/foo/bar.c"  "bar.c"
          "foo/bar/"    "bar/"
          "foo/bar//"   "bar//"
          "/"           ""
          "//"          ""
```

```
           ""           ""
  The return value is a tail of the given FILENAME; do NOT free() it!  */

/* This function was traditionally called 'basename', but we avoid this
  function name because
    * Various platforms have different functions in their libc.
      In particular, the glibc basename(), defined in <string.h>, does
      not consider trailing slashes to be part of the component:

 FILENAME      RESULT
           "foo/bar/"    ""
           "foo/bar//"   ""
    * The 'basename' command eliminates trailing slashes and for a root
      produces a non-empty result:
           FILENAME      RESULT
           "foo/bar/"    "bar"
           "foo/bar//"   "bar"
           "/"           "/"
           "//"          "/"
*/
extern char *last_component (char const *filename) _GL_ATTRIBUTE_PURE;

/* Return the length of the basename FILENAME.
  Typically FILENAME is the value returned by base_name or last_component.
  Act like strlen (FILENAME), except omit all trailing slashes.  */
extern size_t base_len (char const *filename) _GL_ATTRIBUTE_PURE;


#ifdef __cplusplus
} /* extern "C" */
#endif

#endif /* _BASENAME_LGPL_H */
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                  Version 3, 29 June 2007

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*/

#ifndef GRUB_BSD_CPU_HEADER
#define GRUB_BSD_CPU_HEADER 1

#include <grub/types.h>
#include <grub/relocator.h>

#include <grub/i386/freebsd_reboot.h>
#include <grub/i386/netbsd_reboot.h>
#include <grub/i386/openbsd_reboot.h>
#include <grub/i386/freebsd_linker.h>
#include
 <grub/i386/netbsd_bootinfo.h>
#include <grub/i386/openbsd_bootarg.h>

enum bsd_kernel_types
 {
   KERNEL_TYPE_NONE,
   KERNEL_TYPE_FREEBSD,
   KERNEL_TYPE_OPENBSD,
   KERNEL_TYPE_NETBSD,
 };

#define GRUB_BSD_TEMP_BUFFER   0x80000

#define FREEBSD_B_DEVMAGIC OPENBSD_B_DEVMAGIC
#define FREEBSD_B_SLICESHIFT OPENBSD_B_CTRLSHIFT
#define FREEBSD_B_UNITSHIFT OPENBSD_B_UNITSHIFT
#define FREEBSD_B_PARTSHIFT OPENBSD_B_PARTSHIFT
#define FREEBSD_B_TYPESHIFT OPENBSD_B_TYPESHIFT
```

```
#define FREEBSD_MODTYPE_KERNEL  "elf kernel"
#define FREEBSD_MODTYPE_KERNEL64 "elf64 kernel"
#define FREEBSD_MODTYPE_ELF_MODULE "elf module"
#define FREEBSD_MODTYPE_ELF_MODULE_OBJ "elf obj module"
#define FREEBSD_MODTYPE_RAW  "raw"

#define FREEBSD_BOOTINFO_VERSION 1

struct grub_freebsd_bootinfo
{
 grub_uint32_t version;
 grub_uint8_t unused1[44];
 grub_uint32_t length;
 grub_uint8_t unused2;
 grub_uint8_t boot_device;
 grub_uint8_t unused3[18];
 grub_uint32_t kern_end;
 grub_uint32_t environment;
  grub_uint32_t tags;
} GRUB_PACKED;

struct freebsd_tag_header
{
 grub_uint32_t type;
 grub_uint32_t len;
};

grub_err_t grub_freebsd_load_elfmodule32 (struct grub_relocator *relocator,
       grub_file_t file, int argc,
       char *argv[], grub_addr_t *kern_end);
grub_err_t grub_freebsd_load_elfmodule_obj64 (struct grub_relocator *relocator,
           grub_file_t file, int argc,
           char *argv[],
           grub_addr_t *kern_end);
grub_err_t grub_freebsd_load_elf_meta32 (struct grub_relocator *relocator,
      grub_file_t file,
      const char *filename,
      grub_addr_t *kern_end);
grub_err_t grub_freebsd_load_elf_meta64 (struct grub_relocator *relocator,
      grub_file_t file,
      const char *filename,
      grub_addr_t *kern_end);

grub_err_t grub_netbsd_load_elf_meta32 (struct grub_relocator *relocator,
     grub_file_t file,
     const char *filename,
     grub_addr_t *kern_end);
grub_err_t grub_netbsd_load_elf_meta64 (struct grub_relocator *relocator,
```

```
    grub_file_t
 file,
    const char *filename,
    grub_addr_t *kern_end);

grub_err_t grub_bsd_add_meta (grub_uint32_t type,
        const void *data, grub_uint32_t len);
grub_err_t grub_freebsd_add_meta_module (const char *filename, const char *type,
      int argc, char **argv,
      grub_addr_t addr, grub_uint32_t size);

struct grub_openbsd_ramdisk_descriptor
{
 grub_size_t max_size;
 grub_uint8_t *target;
 grub_uint32_t *size;
};

grub_err_t grub_openbsd_find_ramdisk32 (grub_file_t file,
    const char *filename,
    grub_addr_t kern_start,
    void *kern_chunk_src,
    struct grub_openbsd_ramdisk_descriptor *desc);
grub_err_t grub_openbsd_find_ramdisk64 (grub_file_t file,
    const char *filename,
    grub_addr_t kern_start,
    void *kern_chunk_src,
    struct grub_openbsd_ramdisk_descriptor *desc);

extern grub_uint8_t grub_bsd64_trampoline_start, grub_bsd64_trampoline_end;
extern grub_uint32_t grub_bsd64_trampoline_selfjump;
extern grub_uint32_t grub_bsd64_trampoline_gdt;

#endif
 /* ! GRUB_BSD_CPU_HEADER */
```

1.314 zstd 1.4.9

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1.315 util-linux 2.26

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```
#ifndef UTIL_LINUX_PT_BSD_H
#define UTIL_LINUX_PT_BSD_H

#define BSD_MAXPARTITIONS 16
#define BSD_FS_UNUSED  0

#ifndef BSD_DISKMAGIC
# define BSD_DISKMAGIC     ((uint32_t) 0x82564557)
#endif

#define BSD_LINUX_BOOTDIR "/usr/ucb/mdec"

#if defined (__alpha__) || defined (__powerpc__) || \
   defined (__ia64__) || defined (__hppa__)
# define BSD_LABELSECTOR   0
# define BSD_LABELOFFSET   64
#else
# define BSD_LABELSECTOR   1
# define BSD_LABELOFFSET   0
#endif

#define BSD_BBSIZE        8192  /* size of boot area, with label */
#define BSD_SBSIZE        8192  /* max size of fs superblock */

struct bsd_disklabel {
 uint32_t d_magic;  /* the magic number */
 int16_t  d_type;   /* drive type */
 int16_t  d_subtype;  /* controller/d_type specific */
 char  d_typename[16];  /* type name, e.g. "eagle" */
 char  d_packname[16];  /* pack identifier */
```

```
  /* disk geometry: */
uint32_t d_secsize;  /* # of bytes per sector */
uint32_t d_nsectors;  /* # of data sectors per track */
uint32_t d_ntracks;  /*
# of tracks per cylinder */
uint32_t d_ncylinders;  /* # of data cylinders per unit */
uint32_t d_secpercyl;  /* # of data sectors per cylinder */
uint32_t d_secperunit;  /* # of data sectors per unit */

/*
 * Spares (bad sector replacements) below
 * are not counted in d_nsectors or d_secpercyl.
 * Spare sectors are assumed to be physical sectors
 * which occupy space at the end of each track and/or cylinder.
 */
uint16_t d_sparespertrack; /* # of spare sectors per track */
uint16_t d_sparespercyl;  /* # of spare sectors per cylinder */

/*
 * Alternate cylinders include maintenance, replacement,
 * configuration description areas, etc.
 */
uint32_t d_acylinders;  /* # of alt. cylinders per unit */

  /* hardware characteristics: */
/*
 * d_interleave, d_trackskew and d_cylskew describe perturbations
 * in the media format used to compensate for a slow controller.
 * Interleave is physical sector interleave, set up by the formatter
 * or controller
when formatting.  When interleaving is in use,
 * logically adjacent sectors are not physically contiguous,
 * but instead are separated by some number of sectors.
 * It is specified as the ratio of physical sectors traversed
 * per logical sector.  Thus an interleave of 1:1 implies contiguous
 * layout, while 2:1 implies that logical sector 0 is separated
 * by one sector from logical sector 1.
 * d_trackskew is the offset of sector 0 on track N
 * relative to sector 0 on track N-1 on the same cylinder.
 * Finally, d_cylskew is the offset of sector 0 on cylinder N
 * relative to sector 0 on cylinder N-1.
 */
uint16_t d_rpm;   /* rotational speed */
uint16_t d_interleave;  /* hardware sector interleave */
uint16_t d_trackskew;  /* sector 0 skew, per track */
uint16_t d_cylskew;  /* sector 0 skew, per cylinder */
uint32_t d_headswitch;  /* head switch time, usec */
```

```
 uint32_t d_trkseek;  /* track-to-track seek, usec */
 uint32_t d_flags;  /* generic flags */
 uint32_t d_drivedata[5];  /*
 drive-type specific information */
 uint32_t d_spare[5];  /* reserved for future use */
 uint32_t d_magic2;  /* the magic number (again) */
 uint16_t d_checksum;  /* xor of data incl. partitions */

   /* filesystem and partition information: */
 uint16_t d_npartitions;        /* number of partitions in following */
 uint32_t d_bbsize;         /* size of boot area at sn0, bytes */
 uint32_t d_sbsize;         /* max size of fs superblock, bytes */

 struct bsd_partition  {  /* the partition table */
  uint32_t p_size;         /* number of sectors in partition */
  uint32_t p_offset;       /* starting sector */
  uint32_t p_fsize;        /* filesystem basic fragment size */
  uint8_t  p_fstype; /* filesystem type, see below */
  uint8_t  p_frag;  /* filesystem fragments per block */
  uint16_t p_cpg;         /* filesystem cylinders per group */
 } __attribute__((packed)) d_partitions[BSD_MAXPARTITIONS]; /* actually may be more */
} __attribute__((packed));


/* d_type values:
 */
#define BSD_DTYPE_SMD  1  /* SMD, XSMD; VAX hp/up */
#define BSD_DTYPE_MSCP  2  /* MSCP */
#define BSD_DTYPE_DEC  3  /* other DEC (rk, rl) */
#define BSD_DTYPE_SCSI  4  /* SCSI */
#define BSD_DTYPE_ESDI  5  /* ESDI interface */
#define BSD_DTYPE_ST506  6  /* ST506 etc. */
#define BSD_DTYPE_HPIB  7  /* CS/80 on HP-IB */
#define BSD_DTYPE_HPFL  8  /* HP Fiber-link */
#define BSD_DTYPE_FLOPPY 10  /* floppy */

/* d_subtype values: */
#define BSD_DSTYPE_INDOSPART 0x8  /* is inside dos partition */
#define BSD_DSTYPE_DOSPART(s) ((s) & 3) /* dos partition number */
#define BSD_DSTYPE_GEOMETRY 0x10  /* drive params in label */

/*
* Filesystem type and version.
* Used to interpret other filesystem-specific
* per-partition information.
*/
#define BSD_FS_UNUSED 0  /* unused */
#define BSD_FS_SWAP     1  /* swap */
```

```
#define BSD_FS_V6       2  /* Sixth Edition */
#define BSD_FS_V7       3  /* Seventh Edition */
#define BSD_FS_SYSV     4  /* System V */
#define BSD_FS_V71K     5  /* V7
 with 1K blocks (4.1, 2.9) */
#define BSD_FS_V8       6  /* Eighth Edition, 4K blocks */
#define BSD_FS_BSDFFS 7  /* 4.2BSD fast file system */
#define BSD_FS_BSDLFS 9  /* 4.4BSD log-structured file system */
#define BSD_FS_OTHER 10  /* in use, but unknown/unsupported */
#define BSD_FS_HPFS 11  /* OS/2 high-performance file system */
#define BSD_FS_ISO9660 12  /* ISO-9660 filesystem (cdrom) */
#define BSD_FS_ISOFS BSD_FS_ISO9660
#define BSD_FS_BOOT 13  /* partition contains bootstrap */
#define BSD_FS_ADOS 14  /* AmigaDOS fast file system */
#define BSD_FS_HFS 15  /* Macintosh HFS */
#define BSD_FS_ADVFS 16  /* Digital Unix AdvFS */

/* this is annoying, but it's also the way it is :-( */
#ifdef __alpha__
#define BSD_FS_EXT2 8  /* ext2 file system */
#else
#define BSD_FS_MSDOS 8  /* MS-DOS file system */
#endif

/*
* flags shared by various drives:
*/
#define BSD_D_REMOVABLE 0x01  /* removable media */
#define BSD_D_ECC       0x02  /* supports ECC */
#define BSD_D_BADSECT 0x04  /* supports
 bad sector forw. */
#define BSD_D_RAMDISK 0x08  /* disk emulator */
#define BSD_D_CHAIN     0x10  /* can do back-back transfers */
#define BSD_D_DOSPART 0x20  /* within MSDOS partition */

#endif /* UTIL_LINUX_PT_BSD_H */
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1.316 sudo 1.9.13p3

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The following list of people, sorted by last name, have contributed
code or patches to this implementation of sudo since I began
maintaining it in 1993. This list is known to be incomplete--if
you believe you should be listed, send a note to sudo@sudo.ws.

Ackeret, Matt
Adler, Mark
Allbery, Russ
Anderson, Jamie
Andrew, Nick
Andric, Dimitry
Barron, Danny
Bates, Tom
Behan, Zdenk
Bellis, Ray
Benali, Elias
Beverly, Jamie

Boardman, Spider
Bos, Sander
Bostley, P.J.
Bowes, Keith
Boyce, Keith Garry
Brantley, Michael
Braun, Rob
Bezina, Pavel
Brooks, Piete
Brown, Jerry
Burr, Michael E
Burton, Ross
Bussjaeger, Andreas
Calvin, Gary
Campbell, Aaron
Chazelas, Stephane
Cheloha, Scott
ek, Vtzslav
Coleman, Chris
Corzine, Deven T.
Cusack, Frank
Dai, Wei
Dill, David
Earickson, Jeff
Eckhardt, Drew
Edgington, Ben
Esipovich, Marc
Espie, Marc
Faigon,
Ariel
Farrell, Brian
Fobes, Steve
Frysinger, Mike
G., Daniel Richard
Gailly, Jean-loup
Gelman, Stephen
Gerraty, Simon J.
Graber, Stephane
Guillory, B.
Hayman, Randy M.
Henke, Joachim
Hideaki, Yoshifuji
Hieb, Dave
Holloway, Nick
Hoover, Adam
Hunter, Michael T.
Hutchings, Ben
Irrgang, Eric

Jackson, Brian
Jackson, John R.
Jackson, Richard L., Jr.
Janssen, Mark
Jindrk, Jaroslav
Jepeway, Chris
Jorge, Joel Pele
Jover, Guillem
Juhani, Timo
Kikuchi, Ayamura
Kadow, Kevin
Kasal, Stepan
Kienenberger, Mike
King, Dale
King, Michael
Klyachkin, Andrey
Knoble, Jim
Knox, Tim
Komarnitsky, Alek O.
Kondrashov, Nikolai
Kopeek, Daniel
Kranenburg, Paul
Krause, David
Lakin, Eric
Larsen, Case
Levin, Dmitry V.
Libby, Kendall
Lobbes, Phillip E.
McIntyre, Jason
MacKenzie, David J.
McLaughlin, Tom
Makey, Jeff
Mallayya,
Sangamesh
Manner, Rbert
Marchionna, Michael D.
Markham, Paul
Martinian, Emin
Meskes, Michael
Michael, David
Miller, Todd C.
Minier, Loc
Moffat, Darren
Moldung, Jan Thomas
Morris, Charles
Mueller, Andreas
Mller, Dworkin
Nieusma, Jeff

Nikitser, Peter A.
Nussel, Ludwig
Orbn, Lszl
Ouellet, Jean-Philippe
Paquet, Eric
Paradis, Chantal
Pasteleurs, Frederic
Percival, Ted
Perera, Andres
Peron, Christian S.J.
Peschel, Aaron
Peslyak, Alexander
Peterson, Toby
Petten, Diego Elio
Pickett, Joel
Plotnick, Alex
de Raadt, Theo
Rasch, Gudleik
Reid, Steve
Richards, Matt
Rossum, Guido van
Rouillard, John P.
Rowe, William A., Jr.
Roy, Alain
Ruusame, Elan
Ryabinkin, Eygene
Sato, Yuichi
Snchez, Wilfredo
Sanders, Miguel
Sasaki, Kan
Saucier, Jean-Francois
Schoenfeld, Patrick
Schuring, Arno
Schwarze, Ingo
Scott,
Dougal
Shand, Will
Sieger, Nick
Simon, Thor Lancelot
Skoll, Dianne
Slemko, Marc
Smith, Andy
Sobrado, Igor
Soulen, Steven
Spangler, Aaron
Spradling, Cloyce D.
Spradling, Michael
Stier, Matthew

Stoeckmann, Tobias
Street, Russell
Stritzky, Tilo
Stroucken, Michael
Tarrall, Robert
Thomas, Matthew
Todd, Giles
Toft, Martin
Torek, Chris
Tucker, Darren
Uhl, Robert
Uzel, Petr
Valery, Reznic
Van Dinter, Theo
Venckus, Martynas
de Vries, Maarten
Wagner, Klaus
Walsh, Dan
Warburton, John
Webb, Kirk
Wetzel, Timm
Wieringen, Marco van
Wilk, Jakub
Winiger, Gary
Wood, David
Zacarias, Gustavo
Zolnowsky, John

The following people have worked to translate sudo into other languages as part of the Translation Project, see https://translationproject.org for more details.

Albuquerque, Pedro
Blttermann, Mario
Bogusz, Jakub
Buo-ren, Lin

Casagrande, Milo
Castro, Felipe
Cho, Seong-ho
Chornoivan, Yuri
Diguez, Francisco
Doghonadze, Temuri
Fontenelle, Rafael
Garca-Fontes, Walter
Gezer, Volkan
Hamasaki, Takeshi
Hamming, Peter

Hansen, Joe
Hantrais, Frdric
Hein, Jochen
Hufthammer, Karl Ove
Jerovek, Damir
Karvonen, Jorma
Kazik, Duan
Kelemen, Gbor
Keeci, Mehmet
Koir, Klemen
Kozlov, Yuri
Kramer, Jakob
Krznar, Tomislav
Marchal, Frdric
Margeviius, Algimantas
Maryanov, Pavel
Florentina Muat
Nurmi, Lauri
Nikoli, Miroslav
Nylander, Daniel
Pan, Yi-Jyun
Psa, Petr
Puente, Enol
Putanec, Boidar
Qun, Trn Ngc
Rasmussen, Sebastian
Regueiro, Leandro
Sarer, zgr
Selimaj, Agron
Sendn, Abel
erbnescu, Daniel
Shahedany, Eshagh
Sikrom, ka
Spingos, Dimitris
Taniguchi, Yasuaki
Tomat, Fbio
r, Balzs
Uranga, Mikel Olasagasti
Vorotnikov, Artem
Wang, Wylmer

Yang, Boyuan

The following people designed the artwork used on the sudo website:

Shield logo: Badger, Trent
Sandwich logo (inspired by xkcd): Stillman, Mark

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1.317 python 3.8.18

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as a successor of a language called ABC. Guido remains Python's
principal author, although it includes many contributions from others.

In 1995, Guido continued his work on Python at the Corporation for
National Research Initiatives (CNRI, see http://www.cnri.reston.va.us)
in Reston, Virginia where he released several versions of the
software.

In May 2000, Guido and the Python core development team moved to BeOpen.com to form the BeOpen PythonLabs team. In October of the same year, the PythonLabs team moved to Digital Creations, which became Zope Corporation. In 2001, the Python Software Foundation (PSF, see https://www.python.org/psf/) was formed, a non-profit organization created specifically to own Python-related Intellectual Property. Zope Corporation was a sponsoring member of the PSF.

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0.9.0 thru 1.2		1991-1995	CWI	yes
1.3 thru 1.5.2	1.2	1995-1999	CNRI	yes
1.6	1.5.2	2000	CNRI	no
2.0	1.6	2000	BeOpen.com	no
1.6.1	1.6	2001	CNRI	yes (2)
2.1	2.0+1.6.1	2001	PSF	no
2.0.1	2.0+1.6.1	2001	PSF	yes
2.1.1	2.1+2.0.1	2001	PSF	yes
2.1.2	2.1.1	2002	PSF	yes
2.1.3	2.1.2	2002	PSF	yes
2.2 and above	2.1.1	2001-now	PSF	yes

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1.318 sudo 1.8.14p3

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Ackeret, Matt

Adler, Mark
Allbery, Russ
Anderson, Jamie
Andrew, Nick
Andric, Dimitry
Barron, Danny
Bates, Tom
Behan, Zdenk
Bellis, Ray
Benali, Elias
Beverly, Jamie
Boardman, Spider
Bostley, P.J.
Bowes, Keith
Boyce, Keith Garry
Brantley, Michael
Braun, Rob
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Brown, Jerry
Burr, Michael E
Bussjaeger, Andreas
Calvin, Gary
Campbell, Aaron
Chazelas, Stephane
ek, Vtzslav
Coleman, Chris
Corzine, Deven T.
Cusack, Frank
Dai, Wei
Dill, David
Earickson, Jeff
Eckhardt, Drew
Edgington, Ben
Esipovich, Marc
Espie, Marc
Faigon, Ariel
Farrell, Brian
Fobes, Steve
Frysinger, Mike
G., Daniel Richard
Gailly, Jean-loup
Gelman, Stephen
Gerraty, Simon J.
Graber, Stephane
Guillory, B.
Hayman, Randy M.
Henke, Joachim

Hideaki, YOSHIFUJI
Hieb, Dave
Holloway, Nick
Hoover, Adam
Hunter, Michael T.
Irrgang, Eric
Jackson, Brian
Jackson, John R.
Jackson, Richard L., Jr.
Janssen, Mark
Jepeway, Chris
Jorge, Joel Pele
Pele Jorge, Joel
Juhani, Timo
KIKUCHI, Ayamura
Kadow, Kevin
Kasal, Stepan
Kienenberger, Mike
King, Dale
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Knox, Tim
Komarnitsky, Alek O.
Kondrashov, Nikolai
Kopeek, Daniel
Kranenburg, Paul
Krause, David
Lakin, Eric
Larsen, Case
Levin, Dmitry V.
Libby, Kendall
Lobbes, Phillip E.
McIntyre, Jason
MacKenzie, David J.
McLaughlin, Tom
Makey, Jeff
Marchionna, Michael D.
Markham, Paul
Martinian, Emin
Meskes, Michael

Michael, David
Miller, Todd C.
Minier, Loc
Moffat, Darren
Moldung, Jan Thomas
Morris, Charles

Mueller, Andreas
Mller, Dworkin
Nieusma, Jeff
Nikitser, Peter A.
Nussel, Ludwig
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Peslyak, Alexander
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Pickett, Joel
Plotnick, Alex
de Raadt, Theo
Rasch, Gudleik
Reid, Steve
Richards, Matt
Rossum, Guido van
Rouillard, John P.
Rowe, William A., Jr.
Roy, Alain
Ruusame, Elan
Ryabinkin, Eygene
SATO, Yuichi
Snchez, Wilfredo
Saucier, Jean-Francois
Schoenfeld, Patrick
Schuring, Arno
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Scott, Dougal
Sieger, Nick
Simon, Thor Lancelot
Slemko, Marc
Smith, Andy
Sobrado, Igor
Soulen, Steven
Spangler, Aaron
Spradling, Cloyce D.
Stier, Matthew
Stoeckmann, Tobias
Street,
Russell
Stritzky, Tilo
Stroucken, Michael
Tarrall, Robert

Thomas, Matthew
Todd, Giles
Toft, Martin
Torek, Chris
Tucker, Darren
Uhl, Robert
Uzel, Petr
Valery, Reznic
Van Dinter, Theo
Venckus, Martynas
Wagner, Klaus
Walsh, Dan
Warburton, John
Webb, Kirk
Wetzel, Timm
Wieringen, Marco van
Winiger, Gary
Wood, David
Zacarias, Gustavo
Zolnowsky, John

The following people have worked to translate sudo into other languages:

Blttermann, Mario
Bogusz, Jakub
Casagrande, Milo
Castro, Felipe
Chornoivan, Yuri
Diguez, Francisco
Ferreira, Rafael
Garca-Fontes, Walter
Gezer, Volkan
Hamasaki, Takeshi
Hamming, Peter
Hansen, Joe
Hantrais, Frdric
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Nylander, Daniel
Psa, Petr
Qun, Trn Ngc
Regueiro, Leandro
Sarer, zgr
Sendn, Abel
Sikrom, ka
Spingos, Dimitris
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Uranga, Mikel Olasagasti
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1.319 python 2.7.9

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Python was created in the early 1990s by Guido van Rossum at Stichting
Mathematisch Centrum (CWI, see http://www.cwi.nl) in the Netherlands
as a successor of a language called ABC. Guido remains Python's
principal author, although it includes many contributions from others.

In 1995, Guido continued his work on Python at the Corporation for
National Research Initiatives (CNRI, see http://www.cnri.reston.va.us)
in Reston, Virginia where he released several versions of the

software.

In May 2000, Guido and the Python core development team moved to BeOpen.com to form the BeOpen PythonLabs team. In October of the same year, the PythonLabs team moved to Digital Creations (now Zope Corporation, see http://www.zope.com). In 2001, the Python Software Foundation (PSF, see http://www.python.org/psf/) was formed, a non-profit organization created specifically to own Python-related Intellectual Property. Zope Corporation is a sponsoring member of the PSF.

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1.3 thru 1.5.2	1.2	1995-1999	CNRI	yes
1.6	1.5.2	2000	CNRI	no
2.0	1.6	2000	BeOpen.com	no
1.6.1	1.6	2001	CNRI	yes (2)
2.1	2.0+1.6.1	2001	PSF	no
2.0.1	2.0+1.6.1	2001	PSF	yes
2.1.1	2.1+2.0.1	2001	PSF	yes
2.1.2	2.1.1	2002	PSF	yes
2.1.3	2.1.2	2002	PSF	yes
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Thanks to the many outside volunteers who have worked under Guido's direction to make these releases possible.

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Python was created in the early 1990s by Guido van Rossum at Stichting
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as a successor of a language called ABC. Guido remains Python's
principal author, although it includes many contributions from others.

In 1995, Guido continued his work on Python at the Corporation for
National Research Initiatives (CNRI, see http://www.cnri.reston.va.us)
in Reston, Virginia where he released several versions of the
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In May 2000, Guido and the Python core development team moved to
BeOpen.com to form the BeOpen PythonLabs team. In October of the same
year, the PythonLabs team moved to Digital Creations (now Zope
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The End

1.329 fsnotify 1.7.0

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1.330 aws-sdk-go-v2-service-internal-checksum 1.3.17

1.330.1 Available under license :

```
name: License Scan

on: [pull_request]

jobs:
 licensescan:
   name: License Scan
   runs-on: ubuntu-latest
   strategy:
     matrix:
       python-version: [3.9]

   steps:
     - name: Checkout target
       uses: actions/checkout@v2
       with:
         path: sdkbase
         ref: ${{ github.base_ref }}
     - name: Checkout this ref
       uses: actions/checkout@v2
       with:
         path: new-ref
         fetch-depth: 0
     - name: Get Diff
       run: git --git-dir ./new-ref/.git diff --name-only --diff-filter=ACMRT ${{ github.event.pull_request.base.sha }}
${{ github.sha }} > refDiffFiles.txt
     - name: Get Target Files
       run: git --git-dir ./sdkbase/.git ls-files | grep -xf refDiffFiles.txt - > targetFiles.txt
     - name: Checkout scancode
       uses: actions/checkout@v2
       with:
         repository: nexB/scancode-toolkit
         path: scancode-toolkit
         fetch-depth: 1
     - name: Set up Python ${{ matrix.python-version }}
        uses: actions/setup-python@v2
       with:
         python-version: ${{ matrix.python-version }}
     # ScanCode
     - name: Self-configure scancode
       working-directory: ./scancode-toolkit
       run: ./scancode --help
     - name: Run Scan code on target
       run: cat targetFiles.txt | while read filename; do echo ./sdkbase/$filename; done | xargs ./scancode-
toolkit/scancode -l -n 30 --json-pp - | grep short_name | sort | uniq >> old-licenses.txt
     - name: Run Scan code on pr ref
       run: cat refDiffFiles.txt | while read filename; do echo ./new-ref/$filename; done | xargs ./scancode-
```

```
toolkit/scancode -l -n 30 --json-pp - | grep short_name | sort | uniq >> new-licenses.txt
    # compare
    - name: License test
      run: if ! cmp old-licenses.txt new-licenses.txt; then echo "Licenses differ! Failing."; exit -1; else echo "Licenses are the same. Success."; exit 0; fi
ListLicenses
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
 Build stack step
  ClientRequestID
  ComputeContentLength
  UserAgent
  RecursionDetection
 Finalize stack step
  ResolveAuthScheme
  GetIdentity
  ResolveEndpointV2
  disableHTTPS
  ComputePayloadHash
  Retry
  RetryMetricsHeader
  setLegacyContextSigningOptions
  Signing
 Deserialize stack step
  AddRawResponseToMetadata
  ErrorCloseResponseBody
  CloseResponseBody
  ResponseErrorWrapper
  RequestIDRetriever
  OperationDeserializer
  RecordResponseTiming
  RequestResponseLogger
{
  "smithy": "2.0",
  "shapes": {
      "com.amazonaws.licensemanagerlinuxsubscriptions#BoxInteger": {
          "type": "integer"
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#BoxLong": {
          "type": "long"
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#Filter": {
```

```
        "type": "structure",
        "members": {
          "Name": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The type of name to filter by.</p>"
            }
          },
          "Values": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringList",
            "traits": {
              "smithy.api#documentation": "<p>One or more values for the name to filter by.</p>"
            }
          },
          "Operator": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Operator",
             "traits": {
              "smithy.api#documentation": "<p>An operator for filtering results.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>A filter object that is used to return more specific results from a describe
operation.\n      Filters can be used to match a set of resources by specific criteria.</p>"
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#FilterList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Filter"
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettings": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettingsRequest"
        },
        "output": {

          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettingsResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
          },
```

```
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists the Linux subscriptions service settings.</p>",
            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/subscription/GetServiceSettings"
            },
            "smithy.api#idempotent": {}
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettingsRequest":
{
        "type": "structure",
        "members": {}
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettingsResponse": {
        "type": "structure",
        "members": {
            "LinuxSubscriptionsDiscovery": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscovery",
                "traits": {
                    "smithy.api#documentation": "<p>Lists if discovery has been enabled for Linux subscriptions.</p>"
                }
            },
            "LinuxSubscriptionsDiscoverySettings": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscoverySettings",
                "traits": {
                    "smithy.api#documentation": "<p>Lists the settings defined for Linux subscriptions discovery. The
settings include if\n      Organizations integration has been enabled, and
 which Regions data will be aggregated from.</p>"
                }
            },
            "Status": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Status",
                "traits": {
                    "smithy.api#documentation": "<p>Indicates the status of Linux subscriptions settings being
applied.</p>"
                }
            },
            "StatusMessage": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringMap",
                "traits": {
                    "smithy.api#documentation": "<p>A message which details the Linux subscriptions service settings
current status.</p>"
```

```
            }
          },
          "HomeRegions": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringList",
            "traits": {
              "smithy.api#documentation": "<p>The Region in which License Manager displays
the aggregated data for Linux\n      subscriptions.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#Instance": {
        "type": "structure",
        "members": {
          "AmiId": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The AMI ID used to launch the instance.</p>"
            }
          },
          "InstanceID": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The instance ID of the resource.</p>"
            }
          },
          "InstanceType": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The instance type of the resource.</p>"
            }

        },
          "AccountID": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The account ID which owns the instance.</p>"
            }
          },
          "Status": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The status of the instance.</p>"
            }
          },
          "Region": {
            "target": "smithy.api#String",
            "traits": {
```

```
                "smithy.api#documentation": "<p>The Region the instance is running in.</p>"
            }
        },
        "UsageOperation": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The usage operation of the instance. For more information, see For more information, see\n        <a href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/linux-subscriptions-usage-operation.html\">Usage\n        operation values</a> in the <i>License Manager User Guide</i>.</p>"
            }
        },
        "ProductCode": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ProductCodeList",
            "traits": {
                "smithy.api#documentation": "<p>The product code for the instance. For more information, see <a href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/linux-subscriptions-usage-operation.html\">Usage\n        operation values</a> in the <i>License Manager User Guide</i> .</p>"
            }
        },
        "LastUpdatedTime": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The time in which the last discovery updated the instance details.</p>"
            }
        },
        "SubscriptionName": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The name of the subscription being used by the instance.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#documentation": "<p>Details discovered information about a running instance using Linux subscriptions.</p>"
    }
},
"com.amazonaws.licensemanagerlinuxsubscriptions#InstanceList": {
    "type": "list",
    "member": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Instance"
    }
},
"com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException": {
    "type": "structure",
    "members": {
```

```
        "message": {
            "target": "smithy.api#String"
         }
      },
      "traits": {
         "smithy.api#documentation": "<p>An exception occurred with the service.</p>",
         "smithy.api#error": "server"
      }
   },
   "com.amazonaws.licensemanagerlinuxsubscriptions#LicenseManagerLinuxSubscriptions": {
      "type": "service",
      "version": "2018-05-10",
      "operations": [
         {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettings"
         },
         {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstances"
         },
         {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptions"
         },
         {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettings"
         }
      ],

   "traits": {
         "aws.api#service": {
            "sdkId": "License Manager Linux Subscriptions",
            "arnNamespace": "license-manager-linux-subscriptions",
            "cloudTrailEventSource": "license-manager-linux-subscriptions.amazonaws.com"
         },
         "aws.auth#sigv4": {
            "name": "license-manager-linux-subscriptions"
         },
         "aws.protocols#restJson1": {},
         "smithy.api#cors": {
            "additionalAllowedHeaders": [
               "*",
               "content-type",
               "x-amz-content-sha256",
               "x-amz-user-agent",
               "x-amzn-platform-id",
               "x-amzn-trace-id",
               "content-length",
               "x-api-key",
               "authorization",
```

```
                "x-amz-date",

  "x-amz-security-token",
                "Access-Control-Allow-Headers",
                "Access-Control-Allow-Methods",
                "Access-Control-Allow-Origin"
              ],
              "additionalExposedHeaders": [
                "x-amzn-errortype",
                "x-amzn-requestid",
                "x-amzn-trace-id"
              ]
            },
            "smithy.api#documentation": "<p>With License Manager, you can discover and track your commercial Linux subscriptions on running\n      Amazon EC2 instances.</p>",
            "smithy.api#title": "AWS License Manager Linux Subscriptions",
            "smithy.rules#endpointRuleSet": {
              "version": "1.0",
              "parameters": {
                "Region": {
                  "builtIn": "AWS::Region",
                  "required": false,
                  "documentation": "The
 AWS region used to dispatch the request.",
                  "type": "String"
                },
                "UseDualStack": {
                  "builtIn": "AWS::UseDualStack",
                  "required": true,
                  "default": false,
                  "documentation": "When true, use the dual-stack endpoint. If the configured endpoint does not support dual-stack, dispatching the request MAY return an error.",
                  "type": "Boolean"
                },
                "UseFIPS": {
                  "builtIn": "AWS::UseFIPS",
                  "required": true,
                  "default": false,
                  "documentation": "When true, send this request to the FIPS-compliant regional endpoint. If the configured endpoint does not have a FIPS compliant endpoint, dispatching the request will return an error.",

                 "type": "Boolean"
                },
                "Endpoint": {
                  "builtIn": "SDK::Endpoint",
                  "required": false,
                  "documentation": "Override the endpoint used to send this request",
                  "type": "String"
```

```
    }
},
"rules": [
    {
        "conditions": [
            {
                "fn": "isSet",
                "argv": [
                    {
                        "ref": "Endpoint"
                    }
                ]
            }
        ],
        "type": "tree",
        "rules": [
            {

          "conditions": [
                    {
                        "fn": "booleanEquals",
                        "argv": [
                            {
                                "ref": "UseFIPS"
                            },
                            true
                        ]
                    }
                ],
                "error": "Invalid Configuration: FIPS and custom endpoint are not supported",
                "type": "error"
            },
            {
                "conditions": [],
                "type": "tree",
                "rules": [
                    {

              "conditions": [
                            {
                                "fn": "booleanEquals",
                                "argv": [
                                    {
                                        "ref": "UseDualStack"
                                    },
                                    true
                                ]
                            }
```

```
                ],
                "error": "Invalid Configuration: Dualstack and custom endpoint are not supported",
                "type": "error"
              },
              {
                "conditions": [],

          "endpoint": {
                    "url": {
                      "ref": "Endpoint"
                    },
                    "properties": {},
                    "headers": {}
                },
                "type": "endpoint"
              }
            ]
          }
        ]
      },
      {
        "conditions": [],
        "type": "tree",
        "rules": [
          {
            "conditions": [
              {
                "fn": "isSet",

"argv": [
                  {
                    "ref": "Region"
                  }
                ]
              }
            ],
            "type": "tree",
            "rules": [
              {
                "conditions": [
                  {
                    "fn": "aws.partition",
                    "argv": [
                      {
                        "ref": "Region"
                      }
                    ],
```

```
"assign": "PartitionResult"
                    }
                ],
                "type": "tree",
                "rules": [
                    {
                        "conditions": [
                            {
                                "fn": "booleanEquals",
                                "argv": [
                                    {
                                        "ref": "UseFIPS"
                                    },
                                    true
                                ]
                            },

                    {
                                "fn": "booleanEquals",
                                "argv": [
                                    {
                                        "ref": "UseDualStack"
                                    },
                                    true
                                ]
                            }
                        ],
                        "type": "tree",
                        "rules": [
                            {
                                "conditions": [
                                    {

                                  "fn": "booleanEquals",
                                        "argv": [
                                            true,
                                            {
                                                "fn": "getAttr",
                                                "argv": [
                                                    {
                                                        "ref": "PartitionResult"
                                                    },
                                                    "supportsFIPS"
                                                ]

    }
                                        ]
                                    },
```

```
                {
                  "fn": "booleanEquals",
                  "argv": [
                    true,
                    {
                      "fn": "getAttr",
                      "argv": [
                        {
                          "ref": "PartitionResult"
                        },

                       "supportsDualStack"
                        ]
                      }
                    ]
                  }
                ],
                "type": "tree",
                "rules": [
                  {
                    "conditions": [],
                    "type": "tree",
                    "rules": [
                      {

              "conditions": [],
                          "endpoint": {
                            "url": "https://license-manager-linux-subscriptions-
fips.{Region}.{PartitionResult#dualStackDnsSuffix}",
                            "properties": {},
                            "headers": {}
                          },
                          "type": "endpoint"
                        }
                      ]
                    }
                  ]

          },
              {
                "conditions": [],
                "error": "FIPS and DualStack are enabled, but this partition does not support
one or both",
                "type": "error"
              }
            ]
          },
          {
```

```
                "conditions": [
                  {
                    "fn": "booleanEquals",
                    "argv": [
                      {

            "ref": "UseFIPS"
                      },
                      true
                    ]
                  }
                ],
                "type": "tree",
                "rules": [
                  {
                    "conditions": [
                      {
                        "fn": "booleanEquals",
                        "argv": [
                          true,

    {
                            "fn": "getAttr",
                            "argv": [
                              {
                                "ref": "PartitionResult"
                              },
                              "supportsFIPS"
                            ]
                          }
                        ]
                      }
                    ],
                    "type": "tree",

                "rules": [
                      {
                        "conditions": [],
                        "type": "tree",
                        "rules": [
                          {
                            "conditions": [],
                            "endpoint": {
                              "url": "https://license-manager-linux-subscriptions-
fips.{Region}.{PartitionResult#dnsSuffix}",
                              "properties": {},
                              "headers": {}
```

```
                        },
                        "type": "endpoint"
                    }
                ]
            }
        ]
    },
    {
        "conditions": [],
        "error": "FIPS is enabled but this partition does not support FIPS",
        "type": "error"
    }
]

},
{
    "conditions": [
        {
            "fn": "booleanEquals",
            "argv": [
                {
                    "ref": "UseDualStack"
                },
                true
            ]
        }
    ],
    "type": "tree",
    "rules": [
        {

         "conditions": [
                {
                    "fn": "booleanEquals",
                    "argv": [
                        true,
                        {
                            "fn": "getAttr",
                            "argv": [
                                {
                                    "ref": "PartitionResult"
                                },
                                "supportsDualStack"
                            ]
                        }
                    ]
                }
            ],
```

```
                "type": "tree",
                "rules": [
                    {
                        "conditions": [],
                        "type": "tree",
                        "rules": [
                            {
                                "conditions": [],

                            "endpoint": {
                                    "url": "https://license-manager-linux-
subscriptions.{Region}.{PartitionResult#dualStackDnsSuffix}",
                                    "properties": {},
                                    "headers": {}
                                },
                                "type": "endpoint"
                            }
                        ]
                    }
                ]
            },

        {
                "conditions": [],
                "error": "DualStack is enabled but this partition does not support DualStack",
                "type": "error"
            }
        ]
    },
    {
        "conditions": [],
        "type": "tree",
        "rules": [
            {
                "conditions": [],
                "endpoint": {
                    "url":
"https://license-manager-linux-subscriptions.{Region}.{PartitionResult#dnsSuffix}",
                    "properties": {},
                    "headers": {}
                },
                "type": "endpoint"
            }
        ]
    }
  ]
}
]
```

```
            },
            {
              "conditions": [],
              "error": "Invalid Configuration: Missing Region",
              "type": "error"
            }
          ]
        }
      ]
    },
    "smithy.rules#endpointTests": {
      "testCases": [
        {
          "documentation": "For region us-east-1 with FIPS enabled and DualStack enabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-linux-subscriptions-fips.us-east-1.api.aws"
            }
          },
          "params": {
            "Region": "us-east-1",
            "UseFIPS": true,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region us-east-1 with FIPS enabled and DualStack disabled",
          "expect": {

"endpoint": {
              "url": "https://license-manager-linux-subscriptions-fips.us-east-1.amazonaws.com"
            }
          },
          "params": {
            "Region": "us-east-1",
            "UseFIPS": true,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-east-1 with FIPS disabled and DualStack enabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-linux-subscriptions.us-east-1.api.aws"
            }
          },
          "params": {
            "Region": "us-east-1",
```

```
        "UseFIPS": false,
         "UseDualStack": true
      }
    },
    {
      "documentation": "For region us-east-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
           "url": "https://license-manager-linux-subscriptions.us-east-1.amazonaws.com"
        }
      },
      "params": {
        "Region": "us-east-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region cn-north-1 with FIPS enabled and DualStack enabled",
      "expect": {
        "endpoint": {

      "url": "https://license-manager-linux-subscriptions-fips.cn-north-1.api.amazonwebservices.com.cn"
        }
      },
      "params": {
        "Region": "cn-north-1",
        "UseFIPS": true,
        "UseDualStack": true
      }
    },
    {
      "documentation": "For region cn-north-1 with FIPS enabled and DualStack disabled",
      "expect": {
        "endpoint": {
           "url": "https://license-manager-linux-subscriptions-fips.cn-north-1.amazonaws.com.cn"
        }
      },
      "params": {
        "Region": "cn-north-1",
        "UseFIPS": true,
         "UseDualStack": false
      }
    },
    {
      "documentation": "For region cn-north-1 with FIPS disabled and DualStack enabled",
      "expect": {
        "endpoint": {
```

```
                "url": "https://license-manager-linux-subscriptions.cn-north-1.api.amazonwebservices.com.cn"
              }
            },
            "params": {
              "Region": "cn-north-1",
              "UseFIPS": false,
              "UseDualStack": true
            }
          },
          {
            "documentation": "For region cn-north-1 with FIPS disabled and DualStack disabled",
            "expect": {
              "endpoint":
{
                "url": "https://license-manager-linux-subscriptions.cn-north-1.amazonaws.com.cn"
              }
            },
            "params": {
              "Region": "cn-north-1",
              "UseFIPS": false,
              "UseDualStack": false
            }
          },
          {
            "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack enabled",
            "expect": {
              "endpoint": {
                "url": "https://license-manager-linux-subscriptions-fips.us-gov-east-1.api.aws"
              }
            },
            "params": {
              "Region": "us-gov-east-1",
              "UseFIPS": true,
               "UseDualStack": true
            }
          },
          {
            "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack disabled",
            "expect": {
              "endpoint": {
                "url": "https://license-manager-linux-subscriptions-fips.us-gov-east-1.amazonaws.com"
              }
            },
            "params": {
              "Region": "us-gov-east-1",
              "UseFIPS": true,
              "UseDualStack": false
            }
```

```
    },
    {
      "documentation": "For region us-gov-east-1 with FIPS disabled and DualStack enabled",
      "expect": {
        "endpoint":
{
          "url": "https://license-manager-linux-subscriptions.us-gov-east-1.api.aws"
        }
      },
      "params": {
        "Region": "us-gov-east-1",
        "UseFIPS": false,
        "UseDualStack": true
      }
    },
    {
      "documentation": "For region us-gov-east-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-linux-subscriptions.us-gov-east-1.amazonaws.com"
        }
      },
      "params": {
        "Region": "us-gov-east-1",
        "UseFIPS": false,
         "UseDualStack": false
      }
    },
    {
      "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack enabled",
      "expect": {
        "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
      },
      "params": {
        "Region": "us-iso-east-1",
        "UseFIPS": true,
        "UseDualStack": true
      }
    },
    {
      "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-linux-subscriptions-fips.us-iso-east-1.c2s.ic.gov"
         }
      },
      "params": {
        "Region": "us-iso-east-1",
```

```
            "UseFIPS": true,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack enabled",
          "expect": {
            "error": "DualStack is enabled but this partition does not support DualStack"
          },
          "params": {
            "Region": "us-iso-east-1",
            "UseFIPS": false,
            "UseDualStack": true
          }
        },
        {

"documentation": "For region us-iso-east-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-linux-subscriptions.us-iso-east-1.c2s.ic.gov"
            }
          },
          "params": {
            "Region": "us-iso-east-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack enabled",
          "expect": {
            "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
          },
          "params": {

         "Region": "us-isob-east-1",
            "UseFIPS": true,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-linux-subscriptions-fips.us-isob-east-1.sc2s.sgov.gov"
            }
          },
```

```
      "params": {
        "Region": "us-isob-east-1",
        "UseFIPS": true,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region us-isob-east-1 with FIPS disabled
and DualStack enabled",
      "expect": {
        "error": "DualStack is enabled but this partition does not support DualStack"
      },
      "params": {
        "Region": "us-isob-east-1",
        "UseFIPS": false,
        "UseDualStack": true
      }
    },
    {
      "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-linux-subscriptions.us-isob-east-1.sc2s.sgov.gov"
        }
      },
      "params": {
        "Region": "us-isob-east-1",

"UseFIPS": false,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For custom endpoint with region set and fips disabled and dualstack disabled",
      "expect": {
        "endpoint": {
          "url": "https://example.com"
        }
      },
      "params": {
        "Region": "us-east-1",
        "UseFIPS": false,
        "UseDualStack": false,
        "Endpoint": "https://example.com"
      }
    },
    {
      "documentation": "For custom endpoint with region not set and fips disabled and dualstack
```

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disabled",

            "expect": {
                        "endpoint": {
                           "url": "https://example.com"
                        }
                    },
                    "params": {
                       "UseFIPS": false,
                       "UseDualStack": false,
                       "Endpoint": "https://example.com"
                    }
                },
                {
                   "documentation": "For custom endpoint with fips enabled and dualstack disabled",
                   "expect": {
                      "error": "Invalid Configuration: FIPS and custom endpoint are not supported"
                   },
                   "params": {
                      "Region": "us-east-1",
                      "UseFIPS": true,
                      "UseDualStack": false,

             "Endpoint": "https://example.com"
                    }
                },
                {
                   "documentation": "For custom endpoint with fips disabled and dualstack enabled",
                   "expect": {
                      "error": "Invalid Configuration: Dualstack and custom endpoint are not supported"
                   },
                   "params": {
                      "Region": "us-east-1",
                      "UseFIPS": false,
                      "UseDualStack": true,
                      "Endpoint": "https://example.com"
                   }
                },
                {
                   "documentation": "Missing region",
                   "expect": {
                      "error": "Invalid Configuration: Missing Region"
                   }

            }
          ],
          "version": "1.0"
        }
```

```
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscovery": {
        "type": "string",
        "traits": {
          "smithy.api#enum": [
            {
              "name": "Enabled",
              "value": "Enabled",
              "documentation": "Enabled LinuxSubscriptionsDiscovery"
            },
            {
              "name": "Disabled",
              "value": "Disabled",
              "documentation": "Disabled LinuxSubscriptionsDiscovery"
            }
          ]
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscoverySettings": {
        "type": "structure",
        "members": {
          "SourceRegions": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringList",
             "traits": {
              "smithy.api#documentation": "<p>The Regions in which to discover data for Linux
subscriptions.</p>",
              "smithy.api#required": {}
            }
          },
          "OrganizationIntegration": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#OrganizationIntegration",
            "traits": {
              "smithy.api#documentation": "<p>Details if you have enabled resource discovery across your
accounts in Organizations.</p>",
              "smithy.api#required": {}
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Lists the settings defined for discovering Linux subscriptions.</p>"
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstances": {
        "type":
 "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstancesRequest"
```

```
        },
        "output": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstancesResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
            },
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
            },
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists the running Amazon EC2 instances that were discovered with
commercial Linux\n      subscriptions.</p>",
            "smithy.api#http": {

       "code": 200,
                "method": "POST",
                "uri": "/subscription/ListLinuxSubscriptionInstances"
            },
            "smithy.api#idempotent": {},
            "smithy.api#paginated": {
                "inputToken": "NextToken",
                "outputToken": "NextToken",
                "pageSize": "MaxResults",
                "items": "Instances"
            }
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstancesRequest": {
        "type": "structure",
        "members": {
            "Filters": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#FilterList",
                "traits": {
                    "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those
that match one or\n      more sets of key-value pairs that you specify. For example, you can filter by
 the name of\n      <code>AmiID</code> with an optional operator to see subscriptions that match, partially\n
match, or don't match a certain Amazon Machine Image (AMI) ID.</p>\n      <p>The valid names for this filter
are:</p>\n      <ul>\n      <li>\n      <p>\n      <code>AmiID</code>\n      </p>\n
</li>\n      <li>\n      <p>\n      <code>InstanceID</code>\n      </p>\n      </li>\n
<li>\n      <p>\n      <code>AccountID</code>\n      </p>\n      </li>\n      <li>\n
<p>\n      <code>Status</code>\n      </p>\n      </li>\n      <li>\n      <p>\n
<code>Region</code>\n      </p>\n      </li>\n      <li>\n      <p>\n
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<code>UsageOperation</code>\n            </p>\n          </li>\n          <li>\n
    <p>\n              <code>ProductCode</code>\n            </p>\n          </li>\n          <li>\n            <p>\n
     <code>InstanceType</code>\n            </p>\n          </li>\n        </ul>\n        <p>The valid Operators for this
filter are:</p>\n        <ul>\n          <li>\n            <p>\n              <code>contains</code>\n            </p>\n
</li>\n          <li>\n            <p>\n              <code>equals</code>\n            </p>\n          </li>\n          <li>\n
        <p>\n              <code>Notequal</code>\n            </p>\n          </li>\n        </ul>"
              }
            },
            "MaxResults": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#BoxInteger",
              "traits": {
                "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"

      }
            },
            "NextToken": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>",
                "smithy.api#length": {
                  "min": 1,
                  "max": 16384
                }
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "NextToken length limit is half of ddb accepted limit.\nIncrease this limit if
parameters in request increases."
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstancesResponse": {
          "type": "structure",
          "members": {
            "Instances": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InstanceList",
              "traits": {
                "smithy.api#documentation":
 "<p>An array that contains instance objects.</p>"
              }
            },
            "NextToken": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
              }
            }
          }
```

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    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptions": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionsRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionsResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
        },
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
        },
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Lists the Linux subscriptions that have been discovered. If you have linked your\n      organization, the returned results will include data aggregated across your accounts in\n Organizations.</p>",
        "smithy.api#http": {
          "code": 200,
          "method": "POST",
          "uri": "/subscription/ListLinuxSubscriptions"
        },
        "smithy.api#idempotent": {},
        "smithy.api#paginated": {
          "inputToken": "NextToken",
          "outputToken": "NextToken",
          "pageSize": "MaxResults",
          "items": "Subscriptions"
        }

      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionsRequest": {
      "type": "structure",
      "members": {
        "Filters": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#FilterList",
          "traits": {
            "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those that match one or\n      more sets of key-value pairs that you specify. For example, you can filter by the name of\n <code>Subscription</code> with an optional operator to see subscriptions that match,\n      partially match, or don't
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match a certain subscription's name.</p>\n        <p>The valid names for this filter are:</p>\n        <ul>\n
<li>\n            <p>\n                <code>Subscription</code>\n            </p>\n        </li>\n        </ul>\n
<p>The valid Operators for this filter are:</p>\n
      <ul>\n          <li>\n            <p>\n                <code>contains</code>\n            </p>\n          </li>\n
<li>\n            <p>\n                <code>equals</code>\n            </p>\n          </li>\n          <li>\n            <p>\n
            <code>Notequal</code>\n            </p>\n          </li>\n        </ul>"
              }
            },
            "MaxResults": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#BoxInteger",
              "traits": {
                "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
              }
            },
            "NextToken": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>",
                "smithy.api#length": {

                  "min": 1,
                    "max": 16384
                }
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "NextToken length limit is half of ddb accepted limit.\nIncrease this limit if
parameters in request increases."
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionsResponse": {
          "type": "structure",
          "members": {
            "Subscriptions": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionList",
              "traits": {
                "smithy.api#documentation": "<p>An array that contains subscription objects.</p>"
              }
            },
            "NextToken": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>Token for
 the next set of results.</p>"
              }
            }
          }
```

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    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#Operator": {
        "type": "string",
        "traits": {
            "smithy.api#enum": [
                {
                    "name": "EQUAL",
                    "value": "Equal",
                    "documentation": "Equal operator"
                },
                {
                    "name": "NOT_EQUAL",
                    "value": "NotEqual",
                    "documentation": "Not equal operator"
                },
                {
                    "name": "CONTAINS",
                    "value": "Contains",
                    "documentation": "Contains operator"
                }
            ],
            "smithy.api#length": {
                "min": 1,
                "max": 20
            }
        }
    },

"com.amazonaws.licensemanagerlinuxsubscriptions#OrganizationIntegration": {
        "type": "string",
        "traits": {
            "smithy.api#enum": [
                {
                    "name": "Enabled",
                    "value": "Enabled",
                    "documentation": "Enabled OrganizationIntegration"
                },
                {
                    "name": "Disabled",
                    "value": "Disabled",
                    "documentation": "Disabled OrganizationIntegration"
                }
            ]
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ProductCodeList": {
        "type": "list",
        "member": {
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            "target": "smithy.api#String"
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#Status": {
        "type": "string",
        "traits": {
            "smithy.api#enum": [

    {
                    "name": "InProgress",
                    "value": "InProgress",
                    "documentation": "InProgress status"
                },
                {
                    "name": "Completed",
                    "value": "Completed",
                    "documentation": "Completed status"
                },
                {
                    "name": "Successful",
                    "value": "Successful",
                    "documentation": "Successful status"
                },
                {
                    "name": "Failed",
                    "value": "Failed",
                    "documentation": "Failed status"
                }
            ]
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#StringList": {
        "type": "list",
        "member": {
            "target": "smithy.api#String",
            "traits":
{
                "smithy.api#length": {
                    "min": 1,
                    "max": 100
                }
            }
        },
        "traits": {
            "smithy.api#length": {
                "min": 1,
                "max": 100
            },
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            "smithy.api#uniqueItems": {}
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#StringMap": {
        "type": "map",
        "key": {
            "target": "smithy.api#String"
        },
        "value": {
            "target": "smithy.api#String"
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#Subscription": {
        "type": "structure",
        "members": {
            "Name": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The name of the subscription.</p>"

        }
            },
            "Type": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The type of subscription. The type can be subscription-included with Amazon EC2, Bring Your Own\n      Subscription model (BYOS), or from the Amazon Web Services Marketplace. Certain subscriptions may use licensing from the\n      Amazon Web Services Marketplace as well as OS licensing from Amazon EC2 or BYOS.</p>"
                }
            },
            "InstanceCount": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#BoxLong",
                "traits": {
                    "smithy.api#documentation": "<p>The total amount of running instances using this subscription.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>An object which details a discovered Linux subscription.</p>"
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionList": {
        "type": "list",
        "member": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Subscription"
        }
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```
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException": {
      "type": "structure",
      "members": {
        "message": {
          "target": "smithy.api#String"
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>The request was denied due to request throttling.</p>",
        "smithy.api#error": "client"
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettings": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettingsRequest"
      },

    "output": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettingsResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
        },
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
        },
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Updates the service settings for Linux subscriptions.</p>",
        "smithy.api#http": {
          "code": 200,
          "method": "POST",
          "uri": "/subscription/UpdateServiceSettings"
        },
        "smithy.api#idempotent": {}
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettingsRequest":
{
      "type": "structure",
      "members": {
        "LinuxSubscriptionsDiscovery": {
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            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscovery",
            "traits": {
              "smithy.api#documentation": "<p>Describes if the discovery of Linux subscriptions is enabled.</p>",
              "smithy.api#required": {}
            }
          },
          "LinuxSubscriptionsDiscoverySettings": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscoverySettings",
            "traits": {
              "smithy.api#documentation": "<p>The settings defined for Linux subscriptions discovery. The
settings include if Organizations\n      integration has been enabled, and which Regions data will be aggregated
from.</p>",

  "smithy.api#required": {}
            }
          },
          "AllowUpdate": {
            "target": "smithy.api#Boolean",
            "traits": {
              "smithy.api#documentation": "<p>Describes if updates are allowed to the service settings for Linux
subscriptions. If you\n      allow updates, you can aggregate Linux subscription data in more than one home
Region.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettingsResponse": {
        "type": "structure",
        "members": {
          "LinuxSubscriptionsDiscovery": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscovery",
            "traits": {
              "smithy.api#documentation": "<p>Lists if discovery has been enabled for Linux subscriptions.</p>"
            }
          },

         "LinuxSubscriptionsDiscoverySettings": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscoverySettings",
            "traits": {
              "smithy.api#documentation": "<p>The settings defined for Linux subscriptions discovery. The
settings include if Organizations\n      integration has been enabled, and which Regions data will be aggregated
from.</p>"
            }
          },
          "Status": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Status",
            "traits": {
              "smithy.api#documentation": "<p>Indicates the status of Linux subscriptions settings being
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applied.</p>"
                }
            },
            "StatusMessage": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringMap",
                "traits": {
                    "smithy.api#documentation":
 "<p>A message which details the Linux subscriptions service settings current status.</p>"
                }
            },
            "HomeRegions": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringList",
                "traits": {
                    "smithy.api#documentation": "<p>The Region in which License Manager displays the aggregated
data for Linux\n      subscriptions.</p>"
                }
            }
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException": {
        "type": "structure",
        "members": {
            "message": {
                "target": "smithy.api#String"
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>The provided input is not valid. Try your request again.</p>",
            "smithy.api#error": "client"
        }
    }
  }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Checks in the specified license. Check in a license when it is no longer in use.
func (c *Client) CheckInLicense(ctx context.Context, params *CheckInLicenseInput, optFns ...func(*Options))
(*CheckInLicenseOutput, error) {
```

```
 if params == nil {
  params = &CheckInLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "CheckInLicense", params, optFns,
c.addOperationCheckInLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*CheckInLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type CheckInLicenseInput struct {

 // License consumption token.
 //
 // This member is required.
 LicenseConsumptionToken *string

 // License beneficiary.
 Beneficiary *string

 noSmithyDocumentSerde
}

type
 CheckInLicenseOutput struct {
 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationCheckInLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpCheckInLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpCheckInLicense{}, middleware.After)
 if err != nil {
  return err
 }
```

```
if err := addProtocolFinalizerMiddlewares(stack, options, "CheckInLicense"); err != nil {
 return fmt.Errorf("add protocol finalizers: %v", err)
}

if err = addlegacyEndpointContextSetter(stack, options); err != nil {
 return err
}
if err = addSetLoggerMiddleware(stack, options); err != nil {
 return err
}
if err = addClientRequestID(stack); err != nil {
 return err
}
if
err = addComputeContentLength(stack); err != nil {
 return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
 return err
}
if err = addComputePayloadSHA256(stack); err != nil {
 return err
}
if err = addRetry(stack, options); err != nil {
 return err
}
if err = addRawResponseToMetadata(stack); err != nil {
 return err
}
if err = addRecordResponseTiming(stack); err != nil {
 return err
}
if err = addClientUserAgent(stack, options); err != nil {
 return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
 return err
}
if err = addOpCheckInLicenseValidationMiddleware(stack); err != nil {
 return err
}
if err = stack.Initialize.Add(newServiceMetadataMiddleware_opCheckInLicense(options.Region),
```

```
middleware.Before); err != nil {
 return
 err
 }
 if err = addRecursionDetection(stack); err != nil {
 return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
 return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
 return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
 return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
 return err
 }
 return nil
}

func newServiceMetadataMiddleware_opCheckInLicense(region string) *awsmiddleware.RegisterServiceMetadata
{
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:    ServiceID,
  OperationName: "CheckInLicense",
 }
}
CheckoutBorrowLicense
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
  OperationInputValidation
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
 Build stack step
  ClientRequestID
  ComputeContentLength
  UserAgent
  RecursionDetection
 Finalize stack step
  ResolveAuthScheme
  GetIdentity
```

ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
RecordResponseTiming
RequestResponseLogger
DisassociateLicense
Initialize stack step
RegisterServiceMetadata
legacyEndpointContextSetter
SetLogger
OperationInputValidation
Serialize stack step
setOperationInput
ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
UserAgent
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer

```
  RecordResponseTiming
  RequestResponseLogger
CheckoutLicense
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
  OperationInputValidation
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
 Build stack step
  ClientRequestID
  ComputeContentLength
  UserAgent
  RecursionDetection
 Finalize stack step
  ResolveAuthScheme
  GetIdentity
  ResolveEndpointV2
  disableHTTPS
  ComputePayloadHash
  Retry
  RetryMetricsHeader
  setLegacyContextSigningOptions
  Signing
 Deserialize stack step
  AddRawResponseToMetadata
  ErrorCloseResponseBody
  CloseResponseBody
  ResponseErrorWrapper
  RequestIDRetriever
  OperationDeserializer
  RecordResponseTiming
  RequestResponseLogger
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)
```

```
// Checks out the specified license.
//
// If the account that created the license is the same that is performing the
// check out, you must specify the account as the beneficiary.
func (c *Client) CheckoutLicense(ctx context.Context, params *CheckoutLicenseInput, optFns ...func(*Options))
(*CheckoutLicenseOutput, error) {
 if params == nil {
  params = &CheckoutLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "CheckoutLicense", params, optFns,
c.addOperationCheckoutLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*CheckoutLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type CheckoutLicenseInput struct {

 //
 Checkout type.
 //
 // This member is required.
 CheckoutType types.CheckoutType

 // Unique, case-sensitive identifier that you provide to ensure the idempotency of
 // the request.
 //
 // This member is required.
 ClientToken *string

 // License entitlements.
 //
 // This member is required.
 Entitlements []types.EntitlementData

 // Key fingerprint identifying the license.
 //
 // This member is required.
 KeyFingerprint *string

 // Product SKU.
 //
```

```
 // This member is required.
 ProductSKU *string

 // License beneficiary.
 Beneficiary *string

 // Node ID.
 NodeId *string

 noSmithyDocumentSerde
}

type CheckoutLicenseOutput struct {

 // Checkout type.
 CheckoutType types.CheckoutType

 // Allowed license entitlements.
 EntitlementsAllowed []types.EntitlementData

 // Date and time at which the license checkout expires.
 Expiration *string

 // Date and time at which the license checkout is issued.
 IssuedAt *string

 // Amazon Resource Name (ARN) of the checkout license.
 LicenseArn
 *string

 // License consumption token.
 LicenseConsumptionToken *string

 // Node ID.
 NodeId *string

 // Signed token.
 SignedToken *string

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationCheckoutLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
```

```
}
err = stack.Serialize.Add(&awsAwsjson11_serializeOpCheckoutLicense{}, middleware.After)
if err != nil {
 return err
}
err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpCheckoutLicense{}, middleware.After)
if err != nil {
 return err
}
if err := addProtocolFinalizerMiddlewares(stack, options, "CheckoutLicense"); err != nil {
 return fmt.Errorf("add protocol finalizers: %v", err)
}

if err = addlegacyEndpointContextSetter(stack, options); err != nil {
 return err
}
if err = addSetLoggerMiddleware(stack,
options); err != nil {
 return err
}
if err = addClientRequestID(stack); err != nil {
 return err
}
if err = addComputeContentLength(stack); err != nil {
 return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
 return err
}
if err = addComputePayloadSHA256(stack); err != nil {
 return err
}
if err = addRetry(stack, options); err != nil {
 return err
}
if err = addRawResponseToMetadata(stack); err != nil {
 return err
}
if err = addRecordResponseTiming(stack); err != nil {
 return err
}
if err = addClientUserAgent(stack, options); err != nil {
 return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
```

```
 return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
 return err
 }
 if err = addOpCheckoutLicenseValidationMiddleware(stack); err != nil {
 return err
 }
 if err
 = stack.Initialize.Add(newServiceMetadataMiddleware_opCheckoutLicense(options.Region), middleware.Before);
err != nil {
 return err
 }
 if err = addRecursionDetection(stack); err != nil {
 return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
 return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
 return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
 return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
 return err
 }
 return nil
}

func newServiceMetadataMiddleware_opCheckoutLicense(region string) *awsmiddleware.RegisterServiceMetadata
{
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:    ServiceID,
  OperationName: "CheckoutLicense",
 }
}
AssociateLicense
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
  OperationInputValidation
 Serialize stack step
  setOperationInput
  ResolveEndpoint
```

OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
UserAgent
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
RecordResponseTiming
RequestResponseLogger
CheckInLicense
Initialize stack step
RegisterServiceMetadata
legacyEndpointContextSetter
SetLogger
OperationInputValidation
Serialize stack step
setOperationInput
ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
UserAgent
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader

```
 setLegacyContextSigningOptions
 Signing
Deserialize stack step
 AddRawResponseToMetadata
 ErrorCloseResponseBody
 CloseResponseBody
 ResponseErrorWrapper
 RequestIDRetriever
 OperationDeserializer
 RecordResponseTiming
 RequestResponseLogger
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Lists received licenses.
func (c *Client) ListReceivedLicenses(ctx context.Context, params *ListReceivedLicensesInput, optFns
...func(*Options)) (*ListReceivedLicensesOutput, error) {
 if params == nil {
  params = &ListReceivedLicensesInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "ListReceivedLicenses", params, optFns,
c.addOperationListReceivedLicensesMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*ListReceivedLicensesOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type ListReceivedLicensesInput struct {

 // Filters to scope the results. The following filters are supported:
 //
 //   - ProductSKU
 //
```

```
//   - Status
//
//
  - Fingerprint
//
//   - IssuerName
//
//   - Beneficiary
Filters []types.Filter

// Amazon Resource Names (ARNs) of the licenses.
LicenseArns []string

// Maximum number of results to return in a single call.
MaxResults *int32

// Token for the next set of results.
NextToken *string

noSmithyDocumentSerde
}

type ListReceivedLicensesOutput struct {

// Received license details.
Licenses []types.GrantedLicense

// Token for the next set of results.
NextToken *string

// Metadata pertaining to the operation's result.
ResultMetadata middleware.Metadata

noSmithyDocumentSerde
}

func (c *Client) addOperationListReceivedLicensesMiddlewares(stack *middleware.Stack, options Options) (err
error) {
if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
 return err
}
err = stack.Serialize.Add(&awsAwsjson11_serializeOpListReceivedLicenses{}, middleware.After)
if err != nil {
 return err
}
err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpListReceivedLicenses{},
middleware.After)
if err != nil {
```

```
 return err
}
if err := addProtocolFinalizerMiddlewares(stack, options, "ListReceivedLicenses"); err != nil {
 return fmt.Errorf("add protocol finalizers: %v", err)
}

if err = addlegacyEndpointContextSetter(stack, options); err != nil {
 return err
}
if err = addSetLoggerMiddleware(stack, options); err != nil {
 return err
}
if err = addClientRequestID(stack); err != nil {
 return err
}
if err = addComputeContentLength(stack); err != nil {
 return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
 return err
}
if err = addComputePayloadSHA256(stack); err != nil {
 return err
}
if err = addRetry(stack, options); err != nil {
 return err
}
if err = addRawResponseToMetadata(stack); err != nil {
 return err
}
if err = addRecordResponseTiming(stack); err != nil {
 return err
}
if err = addClientUserAgent(stack, options); err != nil {
 return err
}
if err
= smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
 return err
}
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opListReceivedLicenses(options.Region),
middleware.Before); err != nil {
```

```
 return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opListReceivedLicenses(region string)
*awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:
     ServiceID,
  OperationName: "ListReceivedLicenses",
 }
}
AWS SDK for Go
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CreateLicense
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
  OperationInputValidation
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
 Build stack step
  ClientRequestID
  ComputeContentLength
  UserAgent
  RecursionDetection
 Finalize stack step
```

ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
RecordResponseTiming
RequestResponseLogger
GetLicense
Initialize stack step
RegisterServiceMetadata
legacyEndpointContextSetter
SetLogger
OperationInputValidation
Serialize stack step
setOperationInput
ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
UserAgent
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper

```
 RequestIDRetriever
 OperationDeserializer
 RecordResponseTiming
 RequestResponseLogger
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Creates a license.
func (c *Client) CreateLicense(ctx context.Context, params *CreateLicenseInput, optFns ...func(*Options))
(*CreateLicenseOutput, error) {
 if params == nil {
  params = &CreateLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "CreateLicense", params, optFns,
c.addOperationCreateLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*CreateLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type CreateLicenseInput struct {

 // License beneficiary.
 //
 // This member is required.
 Beneficiary *string

 // Unique, case-sensitive identifier that you provide to ensure the idempotency of
 // the request.
 //
 //
 This member is required.
 ClientToken *string
```

```
// Configuration for consumption of the license. Choose a provisional
// configuration for workloads running with continuous connectivity. Choose a
// borrow configuration for workloads with offline usage.
//
// This member is required.
ConsumptionConfiguration *types.ConsumptionConfiguration

// License entitlements.
//
// This member is required.
Entitlements []types.Entitlement

// Home Region for the license.
//
// This member is required.
HomeRegion *string

// License issuer.
//
// This member is required.
Issuer *types.Issuer

// License name.
//
// This member is required.
LicenseName *string

// Product name.
//
// This member is required.
ProductName *string

// Product SKU.
//
// This member is required.
ProductSKU *string

// Date and time range during which the license is valid, in ISO8601-UTC format.
//
// This member is required.
Validity *types.DatetimeRange

// Information about
the license.
LicenseMetadata []types.Metadata

noSmithyDocumentSerde
```

```
}

type CreateLicenseOutput struct {

 // Amazon Resource Name (ARN) of the license.
 LicenseArn *string

 // License status.
 Status types.LicenseStatus

 // License version.
 Version *string

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationCreateLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpCreateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpCreateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "CreateLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if
 err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
```

```
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return
 err
 }
 if err = addOpCreateLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opCreateLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
```

```
 return err
 }
 return nil
}

func newServiceMetadataMiddleware_opCreateLicense(region string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName: "CreateLicense",
 }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Checks out the specified license for offline use.
func (c *Client) CheckoutBorrowLicense(ctx context.Context, params *CheckoutBorrowLicenseInput, optFns
...func(*Options)) (*CheckoutBorrowLicenseOutput, error) {
 if params == nil {
  params = &CheckoutBorrowLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "CheckoutBorrowLicense", params, optFns,
c.addOperationCheckoutBorrowLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*CheckoutBorrowLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type CheckoutBorrowLicenseInput struct {

 // Unique, case-sensitive identifier that you provide to ensure the idempotency of
 //
```

```
the request.
//
// This member is required.
ClientToken *string

// Digital signature method. The possible value is JSON Web Signature (JWS)
// algorithm PS384. For more information, see [RFC 7518 Digital Signature with RSASSA-PSS].
//
// [RFC 7518 Digital Signature with RSASSA-PSS]: https://tools.ietf.org/html/rfc7518#section-3.5
//
// This member is required.
DigitalSignatureMethod types.DigitalSignatureMethod

// License entitlements. Partial checkouts are not supported.
//
// This member is required.
Entitlements []types.EntitlementData

// Amazon Resource Name (ARN) of the license. The license must use the borrow
// consumption configuration.
//
// This member is required.
LicenseArn *string

// Information about constraints.
CheckoutMetadata []types.Metadata

// Node ID.
NodeId *string

noSmithyDocumentSerde
}

type CheckoutBorrowLicenseOutput struct {

// Information about constraints.
CheckoutMetadata []types.Metadata

// Allowed license entitlements.
EntitlementsAllowed
[]types.EntitlementData

// Date and time at which the license checkout expires.
Expiration *string

// Date and time at which the license checkout is issued.
IssuedAt *string
```

```
// Amazon Resource Name (ARN) of the license.
LicenseArn *string

// License consumption token.
LicenseConsumptionToken *string

// Node ID.
NodeId *string

// Signed token.
SignedToken *string

// Metadata pertaining to the operation's result.
ResultMetadata middleware.Metadata

noSmithyDocumentSerde
}

func (c *Client) addOperationCheckoutBorrowLicenseMiddlewares(stack *middleware.Stack, options Options) (err
error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpCheckoutBorrowLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpCheckoutBorrowLicense{}, middleware.After)
 if err != nil {
  return
 err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "CheckoutBorrowLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
```

```
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return
 err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addOpCheckoutBorrowLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opCheckoutBorrowLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
```

```
 return err
 }
 return nil
}

func newServiceMetadataMiddleware_opCheckoutBorrowLicense(region string)
*awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:
       region,
  ServiceID:     ServiceID,
  OperationName: "CheckoutBorrowLicense",
 }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Gets detailed information about the specified license.
func (c *Client) GetLicense(ctx context.Context, params *GetLicenseInput, optFns ...func(*Options))
(*GetLicenseOutput, error) {
 if params == nil {
  params = &GetLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "GetLicense", params, optFns,
c.addOperationGetLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*GetLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type GetLicenseInput struct {

 // Amazon Resource Name (ARN) of the license.
```

```
 //
 // This member is required.
 LicenseArn *string

 // License version.
 Version *string

 noSmithyDocumentSerde
}

type
 GetLicenseOutput struct {

 // License details.
 License *types.License

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationGetLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpGetLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpGetLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "GetLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err
 != nil {
  return err
 }
```

```
if err = addComputeContentLength(stack); err != nil {
 return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
 return err
}
if err = addComputePayloadSHA256(stack); err != nil {
 return err
}
if err = addRetry(stack, options); err != nil {
 return err
}
if err = addRawResponseToMetadata(stack); err != nil {
 return err
}
if err = addRecordResponseTiming(stack); err != nil {
 return err
}
if err = addClientUserAgent(stack, options); err != nil {
 return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
 return err
}
if err = addOpGetLicenseValidationMiddleware(stack); err != nil {
 return err
}
if err = stack.Initialize.Add(newServiceMetadataMiddleware_opGetLicense(options.Region), middleware.Before);
err != nil {
 return err
}
if err = addRecursionDetection(stack); err != nil {
 return err
}
if err = addRequestIDRetrieverMiddleware(stack); err != nil {
 return err
}
if err = addResponseErrorMiddleware(stack); err != nil {
 return err
}
if err = addRequestResponseLogging(stack, options); err != nil {
 return err
```

```
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opGetLicense(region string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName: "GetLicense",
 }
}
DeleteLicense
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
  OperationInputValidation
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
 Build stack step
  ClientRequestID
  ComputeContentLength
  UserAgent
  RecursionDetection
 Finalize stack step
  ResolveAuthScheme
  GetIdentity
  ResolveEndpointV2
  disableHTTPS
  ComputePayloadHash
  Retry
  RetryMetricsHeader
  setLegacyContextSigningOptions
  Signing
 Deserialize stack step
  AddRawResponseToMetadata
  ErrorCloseResponseBody
  CloseResponseBody
  ResponseErrorWrapper
  RequestIDRetriever
  OperationDeserializer
  RecordResponseTiming
  RequestResponseLogger
```

```
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Lists the licenses for your account.
func (c *Client) ListLicenses(ctx context.Context, params *ListLicensesInput, optFns ...func(*Options))
(*ListLicensesOutput, error) {
 if params == nil {
  params = &ListLicensesInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "ListLicenses", params, optFns,
c.addOperationListLicensesMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*ListLicensesOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type ListLicensesInput struct {

 // Filters to scope the results. The following filters are supported:
 //
 //   - Beneficiary
 //
 //   - ProductSKU
 //
 //   - Fingerprint
 //
 //   - Status
 Filters
 []types.Filter

 // Amazon Resource Names (ARNs) of the licenses.
 LicenseArns []string
```

```
 // Maximum number of results to return in a single call.
 MaxResults *int32

 // Token for the next set of results.
 NextToken *string

 noSmithyDocumentSerde
}

type ListLicensesOutput struct {

 // License details.
 Licenses []types.License

 // Token for the next set of results.
 NextToken *string

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationListLicensesMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpListLicenses{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpListLicenses{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack,
 options, "ListLicenses"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
```

```
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack);
 err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opListLicenses(options.Region), middleware.Before);
err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
```

```
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opListLicenses(region string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName: "ListLicenses",
 }
}
```

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```
ListReceivedLicenses
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
 Serialize stack step
  setOperationInput
```

ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
UserAgent
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
RecordResponseTiming
RequestResponseLogger

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package grafana

```
import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/grafana/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Removes the Grafana Enterprise license from a workspace.
func (c *Client) DisassociateLicense(ctx context.Context, params *DisassociateLicenseInput, optFns
...func(*Options)) (*DisassociateLicenseOutput, error) {
 if params == nil {
  params = &DisassociateLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "DisassociateLicense", params, optFns,
c.addOperationDisassociateLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*DisassociateLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type DisassociateLicenseInput struct {

 // The type of license to remove from the workspace.
 //
 // This member is required.
 LicenseType types.LicenseType

 //
 The ID of the workspace to remove the Grafana Enterprise license from.
 //
 // This member is required.
 WorkspaceId *string

 noSmithyDocumentSerde
}

type DisassociateLicenseOutput struct {

 // A structure containing information about the workspace.
 //
```

```
 // This member is required.
 Workspace *types.WorkspaceDescription

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationDisassociateLicenseMiddlewares(stack *middleware.Stack, options Options) (err
error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsRestjson1_serializeOpDisassociateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsRestjson1_deserializeOpDisassociateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "DisassociateLicense");
 err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
```

```
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil
 {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addOpDisassociateLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opDisassociateLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opDisassociateLicense(region string)
*awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
```

```
 ServiceID:     ServiceID,
 OperationName: "DisassociateLicense",
 }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package grafana

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/grafana/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Assigns a Grafana Enterprise license to a workspace. To upgrade, you must use
// ENTERPRISE for the licenseType , and pass in a valid Grafana Labs token for the
// grafanaToken . Upgrading to Grafana Enterprise incurs additional fees. For more
// information, see [Upgrade a workspace to Grafana Enterprise].
//
// [Upgrade a workspace to Grafana Enterprise]: https://docs.aws.amazon.com/grafana/latest/userguide/upgrade-to-
Grafana-Enterprise.html
func (c *Client) AssociateLicense(ctx context.Context, params *AssociateLicenseInput, optFns ...func(*Options))
(*AssociateLicenseOutput, error) {
 if params == nil {
  params = &AssociateLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx,
 "AssociateLicense", params, optFns, c.addOperationAssociateLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*AssociateLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type AssociateLicenseInput struct {

 // The type of license to associate with the workspace.
 //
 // Amazon Managed Grafana workspaces no longer support Grafana Enterprise free
 // trials.
 //
```

```
 // This member is required.
 LicenseType types.LicenseType

 // The ID of the workspace to associate the license with.
 //
 // This member is required.
 WorkspaceId *string

 // A token from Grafana Labs that ties your Amazon Web Services account with a
 // Grafana Labs account. For more information, see [Link your account with Grafana Labs].
 //
 // [Link your account with Grafana Labs]: https://docs.aws.amazon.com/grafana/latest/userguide/upgrade-to-
Grafana-Enterprise.html#AMG-workspace-register-enterprise
 GrafanaToken *string

 noSmithyDocumentSerde
}

type AssociateLicenseOutput
 struct {

 // A structure containing data about the workspace.
 //
 // This member is required.
 Workspace *types.WorkspaceDescription

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationAssociateLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsRestjson1_serializeOpAssociateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsRestjson1_deserializeOpAssociateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "AssociateLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }
```

```
if err = addlegacyEndpointContextSetter(stack, options); err != nil {
 return err
}
if err = addSetLoggerMiddleware(stack,
options); err != nil {
 return err
}
if err = addClientRequestID(stack); err != nil {
 return err
}
if err = addComputeContentLength(stack); err != nil {
 return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
 return err
}
if err = addComputePayloadSHA256(stack); err != nil {
 return err
}
if err = addRetry(stack, options); err != nil {
 return err
}
if err = addRawResponseToMetadata(stack); err != nil {
 return err
}
if err = addRecordResponseTiming(stack); err != nil {
 return err
}
if err = addClientUserAgent(stack, options); err != nil {
 return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
 return err
}
if err = addOpAssociateLicenseValidationMiddleware(stack); err != nil {
 return err
}
if err
= stack.Initialize.Add(newServiceMetadataMiddleware_opAssociateLicense(options.Region), middleware.Before);
err != nil {
 return err
 }
```

```
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opAssociateLicense(region string)
*awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName: "AssociateLicense",
 }
}
{
  "smithy": "2.0",
  "shapes": {
     "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException": {
        "type": "structure",
        "members": {
           "message": {
              "target": "smithy.api#String"
           }
        },
        "traits": {
           "smithy.api#documentation": "<p>You don't have sufficient access to perform this action.</p>",
           "smithy.api#error": "client"
        }
     },
     "com.amazonaws.licensemanagerusersubscriptions#ActiveDirectoryIdentityProvider": {
        "type": "structure",
        "members": {
           "DirectoryId": {
              "target": "smithy.api#String",
              "traits": {
                 "smithy.api#documentation": "<p>The directory ID for an Active Directory identity provider.</p>"
```

```
            }
          }
        },
        "traits": {
          "smithy.api#documentation":
"<p>Details about an Active Directory identity provider.</p>"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#AssociateUser": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#AssociateUserRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#AssociateUserResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
           },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Associates the user to an EC2 instance to utilize user-based
subscriptions.</p>\n        <note>\n          <p>Your estimated bill for charges on the number of users and related
costs will take 48\n        hours to appear for billing periods that haven't closed (marked as <b>Pending</b> billing
status) in Amazon Web Services Billing. For more information, see <a
href=\"https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/invoice.html\">Viewing your\n
        monthly charges</a> in the <i>Amazon Web Services Billing User Guide</i>.</p>\n        </note>",
          "smithy.api#http": {
            "code": 200,
```

```
            "method": "POST",
            "uri": "/user/AssociateUser"
          },
          "smithy.api#idempotent": {}
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#AssociateUserRequest": {
        "type": "structure",
        "members": {
          "Username": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The user name from the identity provider for the user.</p>",
              "smithy.api#required": {}
            }
          },
          "InstanceId": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The ID of the
EC2 instance, which provides user-based subscriptions.</p>",
              "smithy.api#required": {}
            }
          },
          "IdentityProvider": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
            "traits": {
              "smithy.api#documentation": "<p>The identity provider of the user.</p>",
              "smithy.api#required": {}
            }
          },
          "Domain": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The domain name of the user.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#AssociateUserResponse": {
        "type": "structure",
        "members": {
          "InstanceUserSummary": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummary",
             "traits": {
              "smithy.api#documentation": "<p>Metadata that describes the associate user operation.</p>",
              "smithy.api#required": {}
            }
```

```
            }
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#BoxInteger": {
          "type": "integer"
        },
        "com.amazonaws.licensemanagerusersubscriptions#ConflictException": {
          "type": "structure",
          "members": {
            "message": {
              "target": "smithy.api#String"
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>The request couldn't be completed because it conflicted with the current
state of the\n      resource.</p>",
            "smithy.api#error": "server"
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProvider":
{
          "type": "operation",
          "input": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProviderRequest"
          },
          "output": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProviderResponse"
          },
          "errors": [
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
             },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
```

```
            "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Deregisters the identity provider from providing user-based
subscriptions.</p>",
          "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/identity-provider/DeregisterIdentityProvider"
          },
          "smithy.api#idempotent": {}
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProviderRequest": {
        "type": "structure",
        "members": {
          "IdentityProvider": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
             "traits": {
              "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
              "smithy.api#required": {}
            }
          },
          "Product": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
              "smithy.api#required": {}
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProviderResponse": {
        "type": "structure",
        "members": {
          "IdentityProviderSummary": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary",
            "traits": {
              "smithy.api#documentation":
 "<p>Metadata that describes the results of an identity provider operation.</p>",
              "smithy.api#required": {}
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#DisassociateUser": {
        "type": "operation",
```

```
        "input": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#DisassociateUserRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#DisassociateUserResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
             },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Disassociates the user from an EC2 instance providing user-based
subscriptions.</p>",
            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/user/DisassociateUser"
            },
            "smithy.api#idempotent": {}
        }

    },
    "com.amazonaws.licensemanagerusersubscriptions#DisassociateUserRequest": {
        "type": "structure",
        "members": {
            "Username": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The user name from the identity provider for the user.</p>",
```

```
                "smithy.api#required": {}
              }
            },
            "InstanceId": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The ID of the EC2 instance, which provides user-based
subscriptions.</p>",
                "smithy.api#required": {}
              }
            },
            "IdentityProvider": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
              "traits": {
                "smithy.api#documentation":
"<p>An object that specifies details for the identity provider.</p>",
                "smithy.api#required": {}
              }
            },
            "Domain": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The domain name of the user.</p>"
              }
            }
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#DisassociateUserResponse": {
          "type": "structure",
          "members": {
            "InstanceUserSummary": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummary",
              "traits": {
                "smithy.api#documentation": "<p>Metadata that describes the associate user operation.</p>",
                "smithy.api#required": {}
              }
            }
          }
        },

"com.amazonaws.licensemanagerusersubscriptions#Filter": {
          "type": "structure",
          "members": {
            "Attribute": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The name of an attribute to use as a filter.</p>"
              }
```

```
        },
        "Operation": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The type of search (For example, eq, geq, leq)</p>"
          }
        },
        "Value": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>Value of the filter.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>A filter name and value pair that is used
 to return more specific results from a describe\n      operation. Filters can be used to match a set of resources by
specific criteria, such as tags,\n      attributes, or IDs.</p>"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#FilterList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#Filter"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider": {
      "type": "union",
      "members": {
        "ActiveDirectoryIdentityProvider": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ActiveDirectoryIdentityProvider",
          "traits": {
            "smithy.api#documentation": "<p>An object that details an Active Directory identity provider.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#documentation":
 "<p>Details about an identity provider.</p>"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary": {
      "type": "structure",
      "members": {
        "IdentityProvider": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
          "traits": {
            "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
```

```
                "smithy.api#required": {}
            }
        },
        "Settings": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#Settings",
            "traits": {
                "smithy.api#documentation": "<p>An object that details the registered identity providers product related configuration\n      settings such as the subnets to provision VPC endpoints.</p>",
                "smithy.api#required":
 {}
            }
        },
        "Product": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
                "smithy.api#required": {}
            }
        },
        "Status": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The status of an identity provider.</p>",
                "smithy.api#required": {}
            }
        },
        "FailureMessage": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The failure message associated with an identity provider.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#documentation":
 "<p>Describes an identity provider.</p>"
    }
  },
  "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummaryList": {
    "type": "list",
    "member": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary"
    }
  },
  "com.amazonaws.licensemanagerusersubscriptions#InstanceSummary": {
    "type": "structure",
    "members": {
        "InstanceId": {
```

```
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The ID of the EC2 instance, which provides user-based
subscriptions.</p>",
              "smithy.api#required": {}
            }
          },
          "Status": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The status
 of an EC2 instance resource.</p>",
              "smithy.api#required": {}
            }
          },
          "Products": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#StringList",
            "traits": {
              "smithy.api#documentation": "<p>A list of provided user-based subscription products.</p>",
              "smithy.api#required": {}
            }
          },
          "LastStatusCheckDate": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The date of the last status check.</p>"
            }
          },
          "StatusMessage": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The status message for an EC2 instance.</p>"
            }

    }
      },
      "traits": {
        "smithy.api#documentation": "<p>Describes an EC2 instance providing user-based subscriptions.</p>"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#InstanceSummaryList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceSummary"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummary": {
      "type": "structure",
```

```
        "members": {
            "Username": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The user name from the identity provider for the user.</p>",
                    "smithy.api#required": {}
                }
            },
            "InstanceId": {
                "target": "smithy.api#String",
                "traits":
{
                    "smithy.api#documentation": "<p>The ID of the EC2 instance, which provides user-based
subscriptions.</p>",
                    "smithy.api#required": {}
                }
            },
            "IdentityProvider": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
                "traits": {
                    "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
                    "smithy.api#required": {}
                }
            },
            "Status": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The status of a user associated with an EC2 instance.</p>",
                    "smithy.api#required": {}
                }
            },
            "StatusMessage": {
                "target": "smithy.api#String",
                 "traits": {
                    "smithy.api#documentation": "<p>The status message for users of an EC2 instance.</p>"
                }
            },
            "Domain": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The domain name of the user.</p>"
                }
            },
            "AssociationDate": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The date a user was associated with an EC2 instance.</p>"
                }
```

```
            },
            "DisassociationDate": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The date a user was disassociated from an EC2 instance.</p>"
               }
            }

   },
         "traits": {
            "smithy.api#documentation": "<p>Describes users of an EC2 instance providing user-based
subscriptions.</p>"
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummaryList": {
         "type": "list",
         "member": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummary"
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#InternalServerException": {
         "type": "structure",
         "members": {
            "message": {
               "target": "smithy.api#String"
            }
         },
         "traits": {
            "smithy.api#documentation": "<p>An exception occurred with the service.</p>",
            "smithy.api#error": "server"
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#LicenseManagerUserSubscriptions": {
         "type": "service",

       "version": "2018-05-10",
         "operations": [
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#AssociateUser"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProvider"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#DisassociateUser"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProviders"
```

```
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListInstances"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptions"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociations"

},
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProvider"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscription"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscription"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettings"
        }
      ],
      "traits": {
        "aws.api#service": {
          "sdkId": "License Manager User Subscriptions",
          "arnNamespace": "license-manager-user-subscriptions",
          "cloudTrailEventSource": "license-manager-user-subscriptions.amazonaws.com"
        },
        "aws.auth#sigv4": {
          "name": "license-manager-user-subscriptions"
         },
        "aws.protocols#restJson1": {},
        "smithy.api#cors": {
          "additionalAllowedHeaders": [
            "*",
            "content-type",
            "x-amz-content-sha256",
            "x-amz-user-agent",
            "x-amzn-platform-id",
            "x-amzn-trace-id",
            "content-length",
            "x-api-key",
            "authorization",
            "x-amz-date",
            "x-amz-security-token",
            "Access-Control-Allow-Headers",
```

```
                "Access-Control-Allow-Methods",
                "Access-Control-Allow-Origin"
            ],
            "additionalExposedHeaders": [
                "x-amzn-errortype",
                "x-amzn-requestid",
                "x-amzn-trace-id"

 ]
        },
        "smithy.api#documentation": "<p>With License Manager, you can create user-based subscriptions to utilize licensed software with\n      a per user subscription fee on Amazon EC2 instances.</p>",
        "smithy.api#title": "AWS License Manager User Subscriptions",
        "smithy.rules#endpointRuleSet": {
            "version": "1.0",
            "parameters": {
                "Region": {
                    "builtIn": "AWS::Region",
                    "required": false,
                    "documentation": "The AWS region used to dispatch the request.",
                    "type": "String"
                },
                "UseDualStack": {
                    "builtIn": "AWS::UseDualStack",
                    "required": true,
                    "default": false,
                    "documentation": "When true, use the dual-stack
 endpoint. If the configured endpoint does not support dual-stack, dispatching the request MAY return an error.",
                    "type": "Boolean"
                },
                "UseFIPS": {
                    "builtIn": "AWS::UseFIPS",
                    "required": true,
                    "default": false,
                    "documentation": "When true, send this request to the FIPS-compliant regional endpoint. If the configured endpoint does not have a FIPS compliant endpoint, dispatching the request will return an error.",
                    "type": "Boolean"
                },
                "Endpoint": {
                    "builtIn": "SDK::Endpoint",
                    "required": false,
                    "documentation": "Override the endpoint used to send this request",
                    "type": "String"
                }

        },
            "rules": [
                {
```

```
    "conditions": [
      {
        "fn": "isSet",
        "argv": [
          {
            "ref": "Endpoint"
          }
        ]
      }
    ],
    "type": "tree",
    "rules": [
      {
        "conditions": [
          {
            "fn": "booleanEquals",
            "argv": [
              {
                "ref": "UseFIPS"
              },

              true
              ]
          }
        ],
        "error": "Invalid Configuration: FIPS and custom endpoint are not supported",
        "type": "error"
      },
      {
        "conditions": [
          {
            "fn": "booleanEquals",
            "argv": [
              {
                "ref": "UseDualStack"
              },
              true
            ]
          }
        ],

  "error": "Invalid Configuration: Dualstack and custom endpoint are not supported",
        "type": "error"
      },
      {
        "conditions": [],
        "endpoint": {
          "url": {
```

```
                        "ref": "Endpoint"
                    },
                    "properties": {},
                    "headers": {}
                },
                "type": "endpoint"
            }
        ]
    },
    {
        "conditions": [
            {
                "fn": "isSet",
                "argv": [

    {
                        "ref": "Region"
                    }
                ]
            }
        ],
        "type": "tree",
        "rules": [
            {
                "conditions": [
                    {
                        "fn": "aws.partition",
                        "argv": [
                            {
                                "ref": "Region"
                            }
                        ],
                        "assign": "PartitionResult"
                    }
                ],
                "type": "tree",

"rules": [
                    {
                        "conditions": [
                            {
                                "fn": "booleanEquals",
                                "argv": [
                                    {
                                        "ref": "UseFIPS"
                                    },
                                    true
                                ]
```

```
                    },
                    {
                      "fn": "booleanEquals",
                      "argv": [
                        {
                          "ref": "UseDualStack"

                        },
                        true
                      ]
                    }
                  ],
                  "type": "tree",
                  "rules": [
                    {
                      "conditions": [
                        {
                          "fn": "booleanEquals",
                          "argv": [
                            true,
                            {
                              "fn": "getAttr",

"argv": [
                                {
                                  "ref": "PartitionResult"
                                },
                                "supportsFIPS"
                              ]
                            }
                          ]
                        },
                        {
                          "fn": "booleanEquals",
                          "argv": [
                            true,
                            {

        "fn": "getAttr",
                                "argv": [
                                  {
                                    "ref": "PartitionResult"
                                  },
                                  "supportsDualStack"
                                ]
                              }
                            ]
                          }
```

```
                                    ],
                                    "type": "tree",
                                    "rules": [
                                        {

            "conditions": [],
                                            "endpoint": {
                                                "url": "https://license-manager-user-subscriptions-
fips.{Region}.{PartitionResult#dualStackDnsSuffix}",
                                                "properties": {},
                                                "headers": {}
                                            },
                                            "type": "endpoint"
                                        }
                                    ]
                                },
                                {
                                    "conditions": [],
                                    "error": "FIPS and DualStack are enabled, but this partition does not support one or
both",
                                     "type": "error"
                                }
                            ]
                        },
                        {
                            "conditions": [
                                {
                                    "fn": "booleanEquals",
                                    "argv": [
                                        {
                                            "ref": "UseFIPS"
                                        },
                                        true
                                    ]
                                }
                            ],
                            "type": "tree",

          "rules": [
                                {
                                    "conditions": [
                                        {
                                            "fn": "booleanEquals",
                                            "argv": [
                                                true,
                                                {
                                                    "fn": "getAttr",
                                                    "argv": [
```

```
                                        {
                                            "ref": "PartitionResult"
                                        },
                                        "supportsFIPS"

                                    ]
                                        }
                                    ]
                                }
                            ],
                            "type": "tree",
                            "rules": [
                                {
                                    "conditions": [],
                                    "endpoint": {
                                        "url": "https://license-manager-user-subscriptions-
fips.{Region}.{PartitionResult#dnsSuffix}",
                                        "properties": {},
                                        "headers": {}

        },
                                    "type": "endpoint"
                                }
                            ]
                        },
                        {
                            "conditions": [],
                            "error": "FIPS is enabled but this partition does not support FIPS",
                            "type": "error"
                        }
                    ]
                },
                {
                    "conditions": [
                        {
                            "fn": "booleanEquals",
                            "argv": [
                                {
                                    "ref": "UseDualStack"
                                },
                                true
                            ]
                        }
                    ],
                    "type": "tree",
                    "rules": [
                        {
                            "conditions": [
```

```
                {
                  "fn": "booleanEquals",
                  "argv": [
                    true,
                    {

                     "fn": "getAttr",
                       "argv": [
                         {
                           "ref": "PartitionResult"
                         },
                         "supportsDualStack"
                       ]
                    }
                  ]
                }
              ],
              "type": "tree",
              "rules": [
                {

                  "conditions": [],
                   "endpoint": {
                     "url": "https://license-manager-user-
subscriptions.{Region}.{PartitionResult#dualStackDnsSuffix}",
                     "properties": {},
                     "headers": {}
                   },
                   "type": "endpoint"
                }
              ]
            },
            {
              "conditions": [],
              "error": "DualStack is enabled but this partition does
 not support DualStack",
              "type": "error"
            }
          ]
        },
        {
          "conditions": [],
          "endpoint": {
            "url": "https://license-manager-user-
subscriptions.{Region}.{PartitionResult#dnsSuffix}",
            "properties": {},
            "headers": {}
          },
```

```
                        "type": "endpoint"
                      }
                    ]
                  }
                ]
              },
              {
                "conditions":
[],
                "error": "Invalid Configuration: Missing Region",
                "type": "error"
              }
            ]
          },
          "smithy.rules#endpointTests": {
            "testCases": [
              {
                "documentation": "For region us-east-1 with FIPS enabled and DualStack enabled",
                "expect": {
                  "endpoint": {
                    "url": "https://license-manager-user-subscriptions-fips.us-east-1.api.aws"
                  }
                },
                "params": {
                  "Region": "us-east-1",
                  "UseFIPS": true,
                  "UseDualStack": true
                }
              },
              {
                "documentation":
"For region us-east-1 with FIPS enabled and DualStack disabled",
                "expect": {
                  "endpoint": {
                    "url": "https://license-manager-user-subscriptions-fips.us-east-1.amazonaws.com"
                  }
                },
                "params": {
                  "Region": "us-east-1",
                  "UseFIPS": true,
                  "UseDualStack": false
                }
              },
              {
                "documentation": "For region us-east-1 with FIPS disabled and DualStack enabled",
                "expect": {
                  "endpoint": {
                    "url": "https://license-manager-user-subscriptions.us-east-1.api.aws"
```

```
            }
        },

    "params": {
            "Region": "us-east-1",
            "UseFIPS": false,
            "UseDualStack": true
        }
      },
      {
        "documentation": "For region us-east-1 with FIPS disabled and DualStack disabled",
        "expect": {
          "endpoint": {
            "url": "https://license-manager-user-subscriptions.us-east-1.amazonaws.com"
          }
        },
        "params": {
          "Region": "us-east-1",
          "UseFIPS": false,
          "UseDualStack": false
        }
      },
      {
        "documentation": "For region cn-north-1 with
 FIPS enabled and DualStack enabled",
        "expect": {
          "endpoint": {
            "url": "https://license-manager-user-subscriptions-fips.cn-north-
1.api.amazonwebservices.com.cn"
          }
        },
        "params": {
          "Region": "cn-north-1",
          "UseFIPS": true,
          "UseDualStack": true
        }
      },
      {
        "documentation": "For region cn-north-1 with FIPS enabled and DualStack disabled",
        "expect": {
          "endpoint": {
            "url": "https://license-manager-user-subscriptions-fips.cn-north-1.amazonaws.com.cn"
          }
        },

    "params": {
            "Region": "cn-north-1",
            "UseFIPS": true,
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```
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region cn-north-1 with FIPS disabled and DualStack enabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-user-subscriptions.cn-north-1.api.amazonwebservices.com.cn"
            }
          },
          "params": {
            "Region": "cn-north-1",
            "UseFIPS": false,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region cn-north-1
with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-user-subscriptions.cn-north-1.amazonaws.com.cn"
            }
          },
          "params": {
            "Region": "cn-north-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack enabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-user-subscriptions-fips.us-gov-east-1.api.aws"
            }
          },

    "params": {
            "Region": "us-gov-east-1",
            "UseFIPS": true,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack disabled",
          "expect": {
            "endpoint": {
```

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                "url": "https://license-manager-user-subscriptions-fips.us-gov-east-1.amazonaws.com"
              }
            },
            "params": {
              "Region": "us-gov-east-1",
              "UseFIPS": true,
              "UseDualStack": false
            }
          },
          {
            "documentation": "For region us-gov-east-1
with FIPS disabled and DualStack enabled",
            "expect": {
              "endpoint": {
                "url": "https://license-manager-user-subscriptions.us-gov-east-1.api.aws"
              }
            },
            "params": {
              "Region": "us-gov-east-1",
              "UseFIPS": false,
              "UseDualStack": true
            }
          },
          {
            "documentation": "For region us-gov-east-1 with FIPS disabled and DualStack disabled",
            "expect": {
              "endpoint": {
                "url": "https://license-manager-user-subscriptions.us-gov-east-1.amazonaws.com"
              }
            },

        "params": {
              "Region": "us-gov-east-1",
              "UseFIPS": false,
              "UseDualStack": false
            }
          },
          {
            "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack enabled",
            "expect": {
              "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
            },
            "params": {
              "Region": "us-iso-east-1",
              "UseFIPS": true,
              "UseDualStack": true
            }
          },
```

```
                {
                  "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack disabled",
                  "expect":
{
                    "endpoint": {
                      "url": "https://license-manager-user-subscriptions-fips.us-iso-east-1.c2s.ic.gov"
                    }
                  },
                  "params": {
                    "Region": "us-iso-east-1",
                    "UseFIPS": true,
                    "UseDualStack": false
                  }
                },
                {
                  "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack enabled",
                  "expect": {
                    "error": "DualStack is enabled but this partition does not support DualStack"
                  },
                  "params": {
                    "Region": "us-iso-east-1",
                    "UseFIPS": false,
                    "UseDualStack":
true
                  }
                },
                {
                  "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack disabled",
                  "expect": {
                    "endpoint": {
                      "url": "https://license-manager-user-subscriptions.us-iso-east-1.c2s.ic.gov"
                    }
                  },
                  "params": {
                    "Region": "us-iso-east-1",
                    "UseFIPS": false,
                    "UseDualStack": false
                  }
                },
                {
                  "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack enabled",
                  "expect": {
                    "error": "FIPS and DualStack are enabled, but
this partition does not support one or both"
                  },
                  "params": {
                    "Region": "us-isob-east-1",
                    "UseFIPS": true,
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```
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-user-subscriptions-fips.us-isob-east-1.sc2s.sgov.gov"
            }
          },
          "params": {
            "Region": "us-isob-east-1",
            "UseFIPS": true,
            "UseDualStack": false
          }

    },
        {
          "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack enabled",
          "expect": {
            "error": "DualStack is enabled but this partition does not support DualStack"
          },
          "params": {
            "Region": "us-isob-east-1",
            "UseFIPS": false,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-user-subscriptions.us-isob-east-1.sc2s.sgov.gov"
            }
          },
           "params": {
            "Region": "us-isob-east-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For custom endpoint with region set and fips disabled and dualstack disabled",
          "expect": {
            "endpoint": {
              "url": "https://example.com"
            }
          },
```

```
      "params": {
        "Region": "us-east-1",
        "UseFIPS": false,
        "UseDualStack": false,
        "Endpoint": "https://example.com"
      }
    },
    {

"documentation": "For custom endpoint with region not set and fips disabled and dualstack disabled",
      "expect": {
        "endpoint": {
          "url": "https://example.com"
        }
      },
      "params": {
        "UseFIPS": false,
        "UseDualStack": false,
        "Endpoint": "https://example.com"
      }
    },
    {
      "documentation": "For custom endpoint with fips enabled and dualstack disabled",
      "expect": {
        "error": "Invalid Configuration: FIPS and custom endpoint are not supported"
      },
      "params": {
        "Region": "us-east-1",
         "UseFIPS": true,
        "UseDualStack": false,
        "Endpoint": "https://example.com"
      }
    },
    {
      "documentation": "For custom endpoint with fips disabled and dualstack enabled",
      "expect": {
        "error": "Invalid Configuration: Dualstack and custom endpoint are not supported"
      },
      "params": {
        "Region": "us-east-1",
        "UseFIPS": false,
        "UseDualStack": true,
        "Endpoint": "https://example.com"
      }
    },
    {
      "documentation": "Missing region",
      "expect": {
```

```
                    "error": "Invalid Configuration: Missing Region"
                }
            }
        ],
        "version": "1.0"
    }
  }
},
"com.amazonaws.licensemanagerusersubscriptions#ListIdentityProviders": {
  "type": "operation",
  "input": {
    "target": "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProvidersRequest"
  },
  "output": {
    "target": "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProvidersResponse"
  },
  "errors": [
    {
      "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
    },
    {
      "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
    },
    {
      "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
     },
    {
      "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
    },
    {
      "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
    },
    {
      "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
    },
    {
      "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
    }
  ],
  "traits": {
    "smithy.api#documentation": "<p>Lists the identity providers for user-based subscriptions.</p>",
    "smithy.api#http": {
      "code": 200,
      "method": "POST",
      "uri": "/identity-provider/ListIdentityProviders"
    },
    "smithy.api#paginated":
```

```
{
            "inputToken": "NextToken",
            "outputToken": "NextToken",
            "pageSize": "MaxResults",
            "items": "IdentityProviderSummaries"
          }
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProvidersRequest": {
      "type": "structure",
      "members": {
        "MaxResults": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#BoxInteger",
          "traits": {
            "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
          }
        },
        "NextToken": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>Token for the next set of results.</p>"
          }
        }
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProvidersResponse":
{
      "type": "structure",
      "members": {
        "IdentityProviderSummaries": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummaryList",
          "traits": {
            "smithy.api#documentation": "<p>Metadata that describes the list identity providers operation.</p>",
            "smithy.api#required": {}
          }
        },
        "NextToken": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>Token for the next set of results.</p>"
          }
        }
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ListInstances": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#ListInstancesRequest"
```

```
    },
    "output": {
      "target": "com.amazonaws.licensemanagerusersubscriptions#ListInstancesResponse"
    },
    "errors": [
      {
        "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
      },
      {
        "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
      },
      {
        "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
      },
      {
        "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
      },
      {
        "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
      },
      {
        "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
      },
      {
        "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
      }
    ],
    "traits": {
      "smithy.api#documentation": "<p>Lists the EC2 instances providing user-based subscriptions.</p>",
      "smithy.api#http": {
        "code": 200,
        "method": "POST",
        "uri": "/instance/ListInstances"
      },
      "smithy.api#paginated": {
        "inputToken": "NextToken",
        "outputToken": "NextToken",
        "pageSize": "MaxResults",
        "items": "InstanceSummaries"
      }
    }
  },
  "com.amazonaws.licensemanagerusersubscriptions#ListInstancesRequest": {
    "type": "structure",
    "members": {
      "MaxResults": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#BoxInteger",
```

```
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          },
          "Filters": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#FilterList",
            "traits": {
              "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those
that match one or\n      more sets of key-value pairs that you specify.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListInstancesResponse": {
        "type":
 "structure",
        "members": {
          "InstanceSummaries": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceSummaryList",
            "traits": {
              "smithy.api#documentation": "<p>Metadata that describes the list instances operation.</p>"
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptions": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptionsRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptionsResponse"
         },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
```

```
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
             }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Lists the user-based subscription products available from an identity
provider.</p>",
            "smithy.api#http": {
               "code": 200,
               "method": "POST",
               "uri": "/user/ListProductSubscriptions"
            },
            "smithy.api#paginated": {
               "inputToken": "NextToken",
               "outputToken": "NextToken",
               "pageSize": "MaxResults",
               "items": "ProductUserSummaries"
            }
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptionsRequest": {
         "type": "structure",
         "members": {
            "Product": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The name
 of the user-based subscription product.</p>",
                  "smithy.api#required": {}
               }
            },
            "IdentityProvider": {
```

```
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
            "traits": {
              "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
              "smithy.api#required": {}
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#BoxInteger",
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          },
          "Filters": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#FilterList",
            "traits": {

  "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those that match one or\n      more sets of key-value pairs that you specify.</p>"
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptionsResponse": {
        "type": "structure",
        "members": {
          "ProductUserSummaries": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummaryList",
            "traits": {
              "smithy.api#documentation": "<p>Metadata that describes the list product subscriptions operation.</p>"
            }
          },

       "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociations": {
```

```
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociationsRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociationsResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
            },
            {
                "target":
"com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists user associations for an identity provider.</p>",
            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/user/ListUserAssociations"
            },
            "smithy.api#paginated":
{
                "inputToken": "NextToken",
                "outputToken": "NextToken",
                "pageSize": "MaxResults",
                "items": "InstanceUserSummaries"
            }
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociationsRequest": {
```

```
        "type": "structure",
        "members": {
          "InstanceId": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The ID of the EC2 instance, which provides user-based
subscriptions.</p>",
              "smithy.api#required": {}
            }
          },
          "IdentityProvider": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
            "traits": {
              "smithy.api#documentation": "<p>An object that specifies details for the identity
 provider.</p>",
              "smithy.api#required": {}
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#BoxInteger",
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          },
          "Filters": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#FilterList",
            "traits": {
              "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those
that match one or\n      more sets of key-value pairs that you specify.</p>"
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for
 the next set of results.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociationsResponse": {
        "type": "structure",
        "members": {
          "InstanceUserSummaries": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummaryList",
            "traits": {
              "smithy.api#documentation": "<p>Metadata that describes the list user association operation.</p>"
            }
```

```
        },
        "NextToken": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>Token for the next set of results.</p>"
          }
        }
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummary": {
      "type": "structure",
      "members": {

      "Username": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The user name from the identity provider of the user.</p>",
            "smithy.api#required": {}
          }
        },
        "Product": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
            "smithy.api#required": {}
          }
        },
        "IdentityProvider": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
          "traits": {
            "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
            "smithy.api#required": {}
          }

    },
        "Status": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The status of a product for a user.</p>",
            "smithy.api#required": {}
          }
        },
        "StatusMessage": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The status message for a product for a user.</p>"
          }
        },
```

```
            "Domain": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The domain name of the user.</p>"
               }
            },
            "SubscriptionStartDate": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The
start date of a subscription.</p>"
               }
            },
            "SubscriptionEndDate": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The end date of a subscription.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#documentation": "<p>The summary of the user-based subscription products for a user.</p>"
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummaryList": {
         "type": "list",
         "member": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummary"
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProvider": {
         "type": "operation",
         "input": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProviderRequest"
          },
         "output": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProviderResponse"
         },
         "errors": [
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
            },
```

```
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
             },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Registers an identity provider for user-based subscriptions.</p>",
            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/identity-provider/RegisterIdentityProvider"
            },
            "smithy.api#idempotent": {}
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProviderRequest": {
        "type": "structure",
        "members": {
            "IdentityProvider": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
                "traits": {
                    "smithy.api#documentation": "<p>An object that specifies details for the identity
provider.</p>",
                    "smithy.api#required": {}
                }
            },
            "Product": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
                    "smithy.api#required": {}
                }
            },
            "Settings": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#Settings",
                "traits": {
                    "smithy.api#documentation": "<p>The registered identity providers product related configuration
settings such as the\n      subnets to provision VPC endpoints.</p>"
                }
            }
```

```
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProviderResponse": {
        "type": "structure",
        "members": {
          "IdentityProviderSummary":
{
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary",
            "traits": {
              "smithy.api#documentation": "<p>Metadata that describes the results of an identity provider
operation.</p>",
              "smithy.api#required": {}
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException": {
        "type": "structure",
        "members": {
          "message": {
            "target": "smithy.api#String"
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>The resource couldn't be found.</p>",
          "smithy.api#error": "client",
          "smithy.api#httpError": 404
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#SecurityGroup": {
        "type": "string",

    "traits": {
          "smithy.api#length": {
            "min": 5,
            "max": 200
          },
          "smithy.api#pattern": "^sg-(([0-9a-z]{8})|([0-9a-z]{17}))$"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException": {
        "type": "structure",
        "members": {
          "message": {
            "target": "smithy.api#String"
          }
        },
        "traits": {
```

```
            "smithy.api#documentation": "<p>The request failed because a service quota is exceeded.</p>",
            "smithy.api#error": "client"
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#Settings": {
        "type": "structure",
        "members": {
            "Subnets": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#Subnets",
                "traits": {
                    "smithy.api#documentation":
"<p>The subnets defined for the registered identity provider.</p>",
                    "smithy.api#length": {
                        "min": 1
                    },
                    "smithy.api#required": {}
                }
            },
            "SecurityGroupId": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#SecurityGroup",
                "traits": {
                    "smithy.api#documentation": "<p>A security group ID that allows inbound TCP port 1688
communication between resources in\n      your VPC and the VPC endpoint for activation servers.</p>",
                    "smithy.api#required": {}
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>The registered identity providers product related configuration settings
such as the\n      subnets to provision VPC endpoints, and the security group ID that
 is associated with the VPC\n      endpoints. The security group should permit inbound TCP port 1688
communication from resources\n      in the VPC.</p>"
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscription": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscriptionRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscriptionResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
```

```
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Starts a product subscription for a user with the specified identity provider.</p>\n         <note>\n            <p>Your estimated bill for charges on the number of users and related costs will take 48\n         hours to appear for billing periods that haven't closed (marked as <b>Pending</b> billing status) in Amazon Web Services Billing.
 For more information, see <a href=\"https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/invoice.html\">Viewing your\n         monthly charges</a> in the <i>Amazon Web Services Billing User Guide</i>.</p>\n         </note>",
            "smithy.api#http": {
               "code": 200,
               "method": "POST",
               "uri": "/user/StartProductSubscription"
            }
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscriptionRequest": {
         "type": "structure",
         "members": {
            "Username": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The user name from the identity provider of the user.</p>",
                  "smithy.api#required": {}
               }
            },
            "IdentityProvider": {
               "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
               "traits": {
                  "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
                  "smithy.api#required": {}
               }
```

```
            },
            "Product": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
                  "smithy.api#required": {}
               }
            },
            "Domain": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The domain name of the user.</p>"
               }
            }
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscriptionResponse": {
         "type": "structure",
          "members": {
            "ProductUserSummary": {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummary",
               "traits": {
                  "smithy.api#documentation": "<p>Metadata that describes the start product subscription
operation.</p>",
                  "smithy.api#required": {}
               }
            }
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscription": {
         "type": "operation",
         "input": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscriptionRequest"
         },
         "output": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscriptionResponse"
         },
         "errors": [
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"

   },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
            },
```

```
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Stops a product subscription for a user with the specified identity
provider.</p>",
             "smithy.api#http": {
              "code": 200,
              "method": "POST",
              "uri": "/user/StopProductSubscription"
            }
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscriptionRequest": {
          "type": "structure",
          "members": {
            "Username": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The user name from the identity provider for the user.</p>",
                "smithy.api#required": {}
              }
            },
            "IdentityProvider": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
              "traits": {
                "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
                "smithy.api#required":
{}
              }
            },
            "Product": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
                "smithy.api#required": {}
              }
            },
```

```
            "Domain": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The domain name of the user.</p>"
               }
            }
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscriptionResponse": {
         "type": "structure",
         "members": {
            "ProductUserSummary": {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummary",
               "traits": {
                  "smithy.api#documentation":
"<p>Metadata that describes the start product subscription operation.</p>",
                  "smithy.api#required": {}
               }
            }
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#StringList": {
         "type": "list",
         "member": {
            "target": "smithy.api#String"
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#Subnet": {
         "type": "string",
         "traits": {
            "smithy.api#pattern": "subnet-[a-z0-9]{8,17}"
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#Subnets": {
         "type": "list",
         "member": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#Subnet"
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException": {
         "type": "structure",
         "members": {
            "message": {

             "target": "smithy.api#String"
            }
         },
         "traits": {
```

```
            "smithy.api#documentation": "<p>The request was denied because of request throttling. Retry the
request.</p>",
            "smithy.api#error": "client"
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettings": {
          "type": "operation",
          "input": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettingsRequest"
          },
          "output": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettingsResponse"
          },
          "errors": [
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
             },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Updates additional product configuration settings for the registered
identity\n      provider.</p>",
            "smithy.api#http": {
              "code": 200,
              "method": "POST",
              "uri": "/identity-provider/UpdateIdentityProviderSettings"
            },
            "smithy.api#idempotent": {}
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettingsRequest": {
          "type": "structure",
          "members": {
            "IdentityProvider": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
               "traits": {
                 "smithy.api#required": {}
              }
            },
            "Product": {
```

```
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
              "smithy.api#required": {}
            }
          },
          "UpdateSettings": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#UpdateSettings",
            "traits": {
              "smithy.api#documentation": "<p>Updates the registered identity providers product related
configuration settings. You can\n      update any combination of settings in a single operation such as the:</p>\n
<ul>\n          <li>\n            <p>Subnets which you want to add to provision VPC endpoints.</p>\n          </li>\n
        <li>\n            <p>Subnets which you want to remove the VPC endpoints from.</p>\n          </li>\n
<li>\n            <p>Security group ID which permits traffic to the VPC endpoints.</p>\n          </li>\n        </ul>",
              "smithy.api#required": {}
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettingsResponse": {
        "type": "structure",
        "members": {
          "IdentityProviderSummary": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary",
            "traits": {
              "smithy.api#required": {}
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#UpdateSettings": {
        "type": "structure",
        "members": {
          "AddSubnets": {

           "target": "com.amazonaws.licensemanagerusersubscriptions#Subnets",
            "traits": {
              "smithy.api#documentation": "<p>The ID of one or more subnets in which License Manager will
create a VPC endpoint for products that\n      require connectivity to activation servers.</p>",
              "smithy.api#required": {}
            }
          },
          "RemoveSubnets": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#Subnets",
            "traits": {
              "smithy.api#documentation": "<p>The ID of one or more subnets to remove.</p>",
              "smithy.api#required": {}
            }
```

```
            },
            "SecurityGroupId": {
               "target": "com.amazonaws.licensemanagerusersubscriptions#SecurityGroup",
               "traits": {
                  "smithy.api#documentation": "<p>A security group ID
 that allows inbound TCP port 1688 communication between resources in\n      your VPC and the VPC endpoints for
activation servers.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#documentation": "<p>Updates the registered identity providers product related configuration
settings such as\n      the subnets to provision VPC endpoints.</p>"
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ValidationException": {
         "type": "structure",
         "members": {
            "message": {
               "target": "smithy.api#String"
            }
         },
         "traits": {
            "smithy.api#documentation": "<p>A parameter is not valid.</p>",
            "smithy.api#error": "client"
         }
      }
   }
}
{
   "smithy": "2.0",
   "metadata": {
      "suppressions": [
         {
            "id": "HttpMethodSemantics",
            "namespace": "*"
         },
         {
            "id": "HttpResponseCodeSemantics",
            "namespace": "*"
         },
         {
            "id": "PaginatedTrait",
            "namespace": "*"
         },
         {
            "id": "HttpHeaderTrait",
            "namespace": "*"
```

```
        },
        {
          "id": "HttpUriConflict",
          "namespace": "*"
        },
        {
          "id": "Service",
          "namespace": "*"
        }
      ]
    },
    "shapes": {
      "com.amazonaws.licensemanager#AWSLicenseManager": {
        "type": "service",
        "version": "2018-08-01",
        "operations": [
          {
            "target": "com.amazonaws.licensemanager#AcceptGrant"
          },

   {
            "target": "com.amazonaws.licensemanager#CheckInLicense"
          },
          {
            "target": "com.amazonaws.licensemanager#CheckoutBorrowLicense"
          },
          {
            "target": "com.amazonaws.licensemanager#CheckoutLicense"
          },
          {
            "target": "com.amazonaws.licensemanager#CreateGrant"
          },
          {
            "target": "com.amazonaws.licensemanager#CreateGrantVersion"
          },
          {
            "target": "com.amazonaws.licensemanager#CreateLicense"
          },
          {
            "target": "com.amazonaws.licensemanager#CreateLicenseConfiguration"
          },
          {
            "target": "com.amazonaws.licensemanager#CreateLicenseConversionTaskForResource"
          },
          {
            "target": "com.amazonaws.licensemanager#CreateLicenseManagerReportGenerator"
           },
          {
```

```
      "target": "com.amazonaws.licensemanager#CreateLicenseVersion"
    },
    {
      "target": "com.amazonaws.licensemanager#CreateToken"
    },
    {
      "target": "com.amazonaws.licensemanager#DeleteGrant"
    },
    {
      "target": "com.amazonaws.licensemanager#DeleteLicense"
    },
    {
      "target": "com.amazonaws.licensemanager#DeleteLicenseConfiguration"
    },
    {
      "target": "com.amazonaws.licensemanager#DeleteLicenseManagerReportGenerator"
    },
    {
      "target": "com.amazonaws.licensemanager#DeleteToken"
    },
    {
      "target": "com.amazonaws.licensemanager#ExtendLicenseConsumption"

  },
    {
      "target": "com.amazonaws.licensemanager#GetAccessToken"
    },
    {
      "target": "com.amazonaws.licensemanager#GetGrant"
    },
    {
      "target": "com.amazonaws.licensemanager#GetLicense"
    },
    {
      "target": "com.amazonaws.licensemanager#GetLicenseConfiguration"
    },
    {
      "target": "com.amazonaws.licensemanager#GetLicenseConversionTask"
    },
    {
      "target": "com.amazonaws.licensemanager#GetLicenseManagerReportGenerator"
    },
    {
      "target": "com.amazonaws.licensemanager#GetLicenseUsage"
    },
    {
      "target": "com.amazonaws.licensemanager#GetServiceSettings"
    },
```

```
{
   "target": "com.amazonaws.licensemanager#ListAssociationsForLicenseConfiguration"
 },
{
   "target": "com.amazonaws.licensemanager#ListDistributedGrants"
},
{
   "target": "com.amazonaws.licensemanager#ListFailuresForLicenseConfigurationOperations"
},
{
   "target": "com.amazonaws.licensemanager#ListLicenseConfigurations"
},
{
   "target": "com.amazonaws.licensemanager#ListLicenseConversionTasks"
},
{
   "target": "com.amazonaws.licensemanager#ListLicenseManagerReportGenerators"
},
{
   "target": "com.amazonaws.licensemanager#ListLicenses"
},
{
   "target": "com.amazonaws.licensemanager#ListLicenseSpecificationsForResource"
},
{

  "target": "com.amazonaws.licensemanager#ListLicenseVersions"
},
{
   "target": "com.amazonaws.licensemanager#ListReceivedGrants"
},
{
   "target": "com.amazonaws.licensemanager#ListReceivedGrantsForOrganization"
},
{
   "target": "com.amazonaws.licensemanager#ListReceivedLicenses"
},
{
   "target": "com.amazonaws.licensemanager#ListReceivedLicensesForOrganization"
},
{
   "target": "com.amazonaws.licensemanager#ListResourceInventory"
},
{
   "target": "com.amazonaws.licensemanager#ListTagsForResource"
},
{
   "target": "com.amazonaws.licensemanager#ListTokens"
```

```
        },
        {
          "target": "com.amazonaws.licensemanager#ListUsageForLicenseConfiguration"
        },
        {
          "target": "com.amazonaws.licensemanager#RejectGrant"
        },
        {
          "target": "com.amazonaws.licensemanager#TagResource"
        },
        {
          "target": "com.amazonaws.licensemanager#UntagResource"
        },
        {
          "target": "com.amazonaws.licensemanager#UpdateLicenseConfiguration"
        },
        {
          "target": "com.amazonaws.licensemanager#UpdateLicenseManagerReportGenerator"
        },
        {
          "target": "com.amazonaws.licensemanager#UpdateLicenseSpecificationsForResource"
        },
        {
          "target": "com.amazonaws.licensemanager#UpdateServiceSettings"
        }
      ],
      "traits": {
        "aws.api#service": {
          "sdkId": "License Manager",
          "arnNamespace": "license-manager",
          "cloudFormationName": "LicenseManager",
          "cloudTrailEventSource": "licensemanager.amazonaws.com",
          "endpointPrefix": "license-manager"
        },
        "aws.auth#sigv4": {
          "name": "license-manager"
        },
        "aws.protocols#awsJson1_1": {},
        "smithy.api#documentation": "<p>License Manager makes it easier to manage licenses from software
vendors across multiple \n        Amazon Web Services accounts and on-premises servers.</p>",
        "smithy.api#title": "AWS License Manager",
        "smithy.api#xmlNamespace": {
          "uri": "https://license-manager.amazonaws.com/doc/2018_08_01"
        },
        "smithy.rules#endpointRuleSet": {
          "version": "1.0",
          "parameters": {
```

```
        "Region": {
          "builtIn": "AWS::Region",
          "required": false,
          "documentation": "The AWS region used to dispatch the request.",
          "type": "String"
        },
        "UseDualStack": {
          "builtIn": "AWS::UseDualStack",
          "required": true,
          "default": false,
          "documentation": "When true, use the dual-stack endpoint. If the configured endpoint does not support dual-stack, dispatching the request MAY return an error.",
          "type": "Boolean"
        },
        "UseFIPS": {
          "builtIn": "AWS::UseFIPS",
          "required": true,
          "default": false,
          "documentation": "When true, send this request to the FIPS-compliant regional endpoint. If the configured endpoint does not have a FIPS compliant endpoint, dispatching the request will return an error.",
          "type": "Boolean"
        },
        "Endpoint": {
          "builtIn": "SDK::Endpoint",
          "required": false,
          "documentation": "Override the endpoint used to send this request",
          "type": "String"
        }
      },
      "rules": [
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          "conditions": [
            {
              "fn": "isSet",
              "argv": [
                {
                  "ref": "Endpoint"
                }
              ]

            }
          ],
          "type": "tree",
          "rules": [
            {
              "conditions": [
                {
```

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                    "fn": "booleanEquals",
                    "argv": [
                      {
                        "ref": "UseFIPS"
                      },
                      true
                    ]
                  }
                ],
                "error": "Invalid Configuration: FIPS and custom endpoint are not supported",
                "type": "error"
              },
              {

"conditions": [
                  {
                    "fn": "booleanEquals",
                    "argv": [
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                        "ref": "UseDualStack"
                      },
                      true
                    ]
                  }
                ],
                "error": "Invalid Configuration: Dualstack and custom endpoint are not supported",
                "type": "error"
              },
              {
                "conditions": [],
                "endpoint": {
                  "url": {
                    "ref": "Endpoint"
                   },
                  "properties": {},
                  "headers": {}
                },
                "type": "endpoint"
              }
            ]
          },
          {
            "conditions": [
              {
                "fn": "isSet",
                "argv": [
                  {
                    "ref": "Region"
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```
                }
            ]
        }
    ],
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    "rules": [
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                    "argv": [
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                            "ref": "Region"
                        }
                    ],
                    "assign": "PartitionResult"
                }
            ],
            "type": "tree",
            "rules": [
                {
                    "conditions": [
                        {
                            "fn": "booleanEquals",
                            "argv": [
                                {
                                    "ref":
"UseFIPS"
                                },
                                true
                            ]
                        },
                        {
                            "fn": "booleanEquals",
                            "argv": [
                                {
                                    "ref": "UseDualStack"
                                },
                                true
                            ]
                        }
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                            "conditions": [
                                {
                                    "fn": "booleanEquals",
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                  {
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                    "argv": [
                      {
                        "ref": "PartitionResult"
                      },
                      "supportsFIPS"
                    ]

                }
                ]
              },
              {
                "fn": "booleanEquals",
                "argv": [
                  true,
                  {
                    "fn": "getAttr",
                    "argv": [
                      {
                        "ref": "PartitionResult"
                      },

"supportsDualStack"
                    ]
                  }
                ]
              }
            ],
            "type": "tree",
            "rules": [
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                "conditions": [],
                "endpoint": {
                  "url": "https://license-manager-
fips.{Region}.{PartitionResult#dualStackDnsSuffix}",
                  "properties": {},
                  "headers": {}

              },
                "type": "endpoint"
              }
            ]
          },
          {
            "conditions": [],
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                "error": "FIPS and DualStack are enabled, but this partition does not support one or
both",
                "type": "error"
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          },
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            "conditions": [
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                "fn": "booleanEquals",

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                    "ref": "UseFIPS"
                  },
                  true
                ]
              }
            ],
            "type": "tree",
            "rules": [
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                "conditions": [
                  {
                    "fn": "booleanEquals",
                    "argv": [
                      true,

          {
                        "fn": "getAttr",
                        "argv": [
                          {
                            "ref": "PartitionResult"
                          },
                          "supportsFIPS"
                        ]
                      }
                    ]
                  }
                ],
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                "rules": [

          {
                    "conditions": [],
                    "endpoint": {
                      "url": "https://license-manager-fips.{Region}.{PartitionResult#dnsSuffix}",
                      "properties": {},
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                "headers": {}
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              "type": "endpoint"
            }
          ]
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        {
          "conditions": [],
          "error": "FIPS is enabled but this
partition does not support FIPS",
          "type": "error"
        }
      ]
    },
    {
      "conditions": [
        {
          "fn": "booleanEquals",
          "argv": [
            {
              "ref": "UseDualStack"
            },
            true
          ]
        }
      ],
      "type": "tree",
       "rules": [
        {
          "conditions": [
            {
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              "argv": [
                true,
                {
                  "fn": "getAttr",
                  "argv": [
                    {
                      "ref": "PartitionResult"
                    },

"supportsDualStack"
                  ]
                }
              ]
            }
          ],
          "type": "tree",
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manager.{Region}.{PartitionResult#dualStackDnsSuffix}",
                                            "properties": {},
                                            "headers": {}

                                    },
                                        "type": "endpoint"
                                    }
                                ]
                            },
                            {
                                "conditions": [],
                                "error": "DualStack is enabled but this partition does not support DualStack",
                                "type": "error"
                            }
                        ]
                    },
                    {
                        "conditions": [],
                        "endpoint": {
                            "url": "https://license-manager.{Region}.{PartitionResult#dnsSuffix}",
                             "properties": {},
                            "headers": {}
                        },
                        "type": "endpoint"
                    }
                ]
            }
        ]
    },
    {
        "conditions": [],
        "error": "Invalid Configuration: Missing Region",
        "type": "error"
    }
]
},
"smithy.rules#endpointTests": {
    "testCases": [
        {
            "documentation": "For region af-south-1 with FIPS disabled and DualStack disabled",
            "expect": {
                "endpoint":
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{
                    "url": "https://license-manager.af-south-1.amazonaws.com"
                }
            },
            "params": {
                "Region": "af-south-1",
                "UseFIPS": false,
                "UseDualStack": false
            }
        },
        {
            "documentation": "For region ap-east-1 with FIPS disabled and DualStack disabled",
            "expect": {
                "endpoint": {
                    "url": "https://license-manager.ap-east-1.amazonaws.com"
                }
            },
            "params": {
                "Region": "ap-east-1",
                "UseFIPS": false,
                "UseDualStack": false
            }
        },
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            "documentation": "For region ap-northeast-1 with FIPS disabled and DualStack disabled",
            "expect": {
                "endpoint": {
                    "url": "https://license-manager.ap-northeast-1.amazonaws.com"
                }
            },
            "params": {
                "Region": "ap-northeast-1",
                "UseFIPS": false,
                "UseDualStack": false
            }
        },
        {
            "documentation": "For region ap-northeast-2 with FIPS disabled and DualStack disabled",
            "expect": {
                "endpoint": {
                    "url": "https://license-manager.ap-northeast-2.amazonaws.com"
                }
            },
            "params": {
                "Region": "ap-northeast-2",
                "UseFIPS": false,
                "UseDualStack": false
            }
```

```
        },
        {
          "documentation": "For region ap-northeast-3 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager.ap-northeast-3.amazonaws.com"
            }
          },
          "params": {
            "Region": "ap-northeast-3",
            "UseFIPS": false,
            "UseDualStack": false
          }

    },
        {
          "documentation": "For region ap-south-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
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            }
          },
          "params": {
            "Region": "ap-south-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region ap-southeast-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager.ap-southeast-1.amazonaws.com"

     }
          },
          "params": {
            "Region": "ap-southeast-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region ap-southeast-2 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager.ap-southeast-2.amazonaws.com"
            }
```

```
      },
      "params": {
        "Region": "ap-southeast-2",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {

"documentation": "For region ap-southeast-3 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager.ap-southeast-3.amazonaws.com"
        }
      },
      "params": {
        "Region": "ap-southeast-3",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region ca-central-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager.ca-central-1.amazonaws.com"
        }
      },

     "params": {
        "Region": "ca-central-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region eu-central-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager.eu-central-1.amazonaws.com"
        }
      },
      "params": {
        "Region": "eu-central-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
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                {
                  "documentation": "For region eu-north-1 with FIPS
disabled and DualStack disabled",
                  "expect": {
                    "endpoint": {
                      "url": "https://license-manager.eu-north-1.amazonaws.com"
                    }
                  },
                  "params": {
                    "Region": "eu-north-1",
                    "UseFIPS": false,
                    "UseDualStack": false
                  }
                },
                {
                  "documentation": "For region eu-south-1 with FIPS disabled and DualStack disabled",
                  "expect": {
                    "endpoint": {
                      "url": "https://license-manager.eu-south-1.amazonaws.com"
                    }
                  },
                  "params": {
                    "Region":
"eu-south-1",
                    "UseFIPS": false,
                    "UseDualStack": false
                  }
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                {
                  "documentation": "For region eu-west-1 with FIPS disabled and DualStack disabled",
                  "expect": {
                    "endpoint": {
                      "url": "https://license-manager.eu-west-1.amazonaws.com"
                    }
                  },
                  "params": {
                    "Region": "eu-west-1",
                    "UseFIPS": false,
                    "UseDualStack": false
                  }
                },
                {
                  "documentation": "For region eu-west-2 with FIPS disabled and DualStack disabled",
                  "expect": {

                  "endpoint": {
                      "url": "https://license-manager.eu-west-2.amazonaws.com"
                    }
```

```
    },
    "params": {
      "Region": "eu-west-2",
      "UseFIPS": false,
      "UseDualStack": false
    }
  },
  {
    "documentation": "For region eu-west-3 with FIPS disabled and DualStack disabled",
    "expect": {
      "endpoint": {
        "url": "https://license-manager.eu-west-3.amazonaws.com"
      }
    },
    "params": {
      "Region": "eu-west-3",
      "UseFIPS": false,

"UseDualStack": false
    }
  },
  {
    "documentation": "For region me-south-1 with FIPS disabled and DualStack disabled",
    "expect": {
      "endpoint": {
        "url": "https://license-manager.me-south-1.amazonaws.com"
      }
    },
    "params": {
      "Region": "me-south-1",
      "UseFIPS": false,
      "UseDualStack": false
    }
  },
  {
    "documentation": "For region sa-east-1 with FIPS disabled and DualStack disabled",
    "expect": {
      "endpoint": {
        "url": "https://license-manager.sa-east-1.amazonaws.com"
       }
    },
    "params": {
      "Region": "sa-east-1",
      "UseFIPS": false,
      "UseDualStack": false
    }
  },
  {
```

```
      "documentation": "For region us-east-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager.us-east-1.amazonaws.com"
        }
      },
      "params": {
        "Region": "us-east-1",
        "UseFIPS": false,
        "UseDualStack": false
      }

  },
    {
      "documentation": "For region us-east-1 with FIPS enabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-fips.us-east-1.amazonaws.com"
        }
      },
      "params": {
        "Region": "us-east-1",
        "UseFIPS": true,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region us-east-2 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager.us-east-2.amazonaws.com"
        }

     },
      "params": {
        "Region": "us-east-2",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region us-east-2 with FIPS enabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-fips.us-east-2.amazonaws.com"
        }
      },
      "params": {
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            "Region": "us-east-2",
            "UseFIPS": true,
            "UseDualStack": false
          }
        },
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          "documentation": "For region
us-west-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager.us-west-1.amazonaws.com"
            }
          },
          "params": {
            "Region": "us-west-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-west-1 with FIPS enabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-fips.us-west-1.amazonaws.com"
            }
          },
          "params": {

      "Region": "us-west-1",
            "UseFIPS": true,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-west-2 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager.us-west-2.amazonaws.com"
            }
          },
          "params": {
            "Region": "us-west-2",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-west-2 with FIPS enabled and DualStack disabled",
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"expect": {
                    "endpoint": {
                      "url": "https://license-manager-fips.us-west-2.amazonaws.com"
                    }
                  },
                  "params": {
                    "Region": "us-west-2",
                    "UseFIPS": true,
                    "UseDualStack": false
                  }
                },
                {
                  "documentation": "For region us-east-1 with FIPS enabled and DualStack enabled",
                  "expect": {
                    "endpoint": {
                      "url": "https://license-manager-fips.us-east-1.api.aws"
                    }
                  },
                  "params": {
                    "Region": "us-east-1",
                    "UseFIPS": true,

                    "UseDualStack": true
                  }
                },
                {
                  "documentation": "For region us-east-1 with FIPS disabled and DualStack enabled",
                  "expect": {
                    "endpoint": {
                      "url": "https://license-manager.us-east-1.api.aws"
                    }
                  },
                  "params": {
                    "Region": "us-east-1",
                    "UseFIPS": false,
                    "UseDualStack": true
                  }
                },
                {
                  "documentation": "For region cn-north-1 with FIPS disabled and DualStack disabled",
                  "expect": {
                    "endpoint": {
                      "url":
"https://license-manager.cn-north-1.amazonaws.com.cn"
                    }
                  },
                  "params": {
```

```
            "Region": "cn-north-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region cn-northwest-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager.cn-northwest-1.amazonaws.com.cn"
            }
          },
          "params": {
            "Region": "cn-northwest-1",
            "UseFIPS": false,
            "UseDualStack": false

}
        },
        {
          "documentation": "For region cn-north-1 with FIPS enabled and DualStack enabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-fips.cn-north-1.api.amazonwebservices.com.cn"
            }
          },
          "params": {
            "Region": "cn-north-1",
            "UseFIPS": true,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region cn-north-1 with FIPS enabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-fips.cn-north-1.amazonaws.com.cn"
             }
          },
          "params": {
            "Region": "cn-north-1",
            "UseFIPS": true,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region cn-north-1 with FIPS disabled and DualStack enabled",
          "expect": {
```

```
            "endpoint": {
                "url": "https://license-manager.cn-north-1.api.amazonwebservices.com.cn"
            }
        },
        "params": {
            "Region": "cn-north-1",
            "UseFIPS": false,
            "UseDualStack": true
        }
    },

{
        "documentation": "For region us-gov-east-1 with FIPS disabled and DualStack disabled",
        "expect": {
            "endpoint": {
                "url": "https://license-manager.us-gov-east-1.amazonaws.com"
            }
        },
        "params": {
            "Region": "us-gov-east-1",
            "UseFIPS": false,
            "UseDualStack": false
        }
    },
    {
        "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack disabled",
        "expect": {
            "endpoint": {
                "url": "https://license-manager-fips.us-gov-east-1.amazonaws.com"
            }
         },
        "params": {
            "Region": "us-gov-east-1",
            "UseFIPS": true,
            "UseDualStack": false
        }
    },
    {
        "documentation": "For region us-gov-west-1 with FIPS disabled and DualStack disabled",
        "expect": {
            "endpoint": {
                "url": "https://license-manager.us-gov-west-1.amazonaws.com"
            }
        },
        "params": {
            "Region": "us-gov-west-1",
            "UseFIPS": false,
            "UseDualStack": false
```

```
            }
        },
        {
            "documentation":
"For region us-gov-west-1 with FIPS enabled and DualStack disabled",
            "expect": {
                "endpoint": {
                    "url": "https://license-manager-fips.us-gov-west-1.amazonaws.com"
                }
            },
            "params": {
                "Region": "us-gov-west-1",
                "UseFIPS": true,
                "UseDualStack": false
            }
        },
        {
            "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack enabled",
            "expect": {
                "endpoint": {
                    "url": "https://license-manager-fips.us-gov-east-1.api.aws"
                }
            },

    "params": {
                "Region": "us-gov-east-1",
                "UseFIPS": true,
                "UseDualStack": true
            }
        },
        {
            "documentation": "For region us-gov-east-1 with FIPS disabled and DualStack enabled",
            "expect": {
                "endpoint": {
                    "url": "https://license-manager.us-gov-east-1.api.aws"
                }
            },
            "params": {
                "Region": "us-gov-east-1",
                "UseFIPS": false,
                "UseDualStack": true
            }
        },
        {
            "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack
disabled",
            "expect": {
                "endpoint": {
```

```
            "url": "https://license-manager.us-iso-east-1.c2s.ic.gov"
          }
        },
        "params": {
          "Region": "us-iso-east-1",
          "UseFIPS": false,
          "UseDualStack": false
        }
      },
      {
        "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack enabled",
        "expect": {
          "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
        },
        "params": {
          "Region": "us-iso-east-1",
          "UseFIPS": true,
           "UseDualStack": true
        }
      },
      {
        "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack disabled",
        "expect": {
          "endpoint": {
            "url": "https://license-manager-fips.us-iso-east-1.c2s.ic.gov"
          }
        },
        "params": {
          "Region": "us-iso-east-1",
          "UseFIPS": true,
          "UseDualStack": false
        }
      },
      {
        "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack enabled",
        "expect": {
          "error": "DualStack is enabled
but this partition does not support DualStack"
        },
        "params": {
          "Region": "us-iso-east-1",
          "UseFIPS": false,
          "UseDualStack": true
        }
      },
      {
        "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack disabled",
        "expect": {
```

```
            "endpoint": {
              "url": "https://license-manager.us-isob-east-1.sc2s.sgov.gov"
            }
          },
          "params": {
            "Region": "us-isob-east-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },

      {
          "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack enabled",
          "expect": {
            "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
          },
          "params": {
            "Region": "us-isob-east-1",
            "UseFIPS": true,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-fips.us-isob-east-1.sc2s.sgov.gov"
            }
          },

    "params": {
            "Region": "us-isob-east-1",
            "UseFIPS": true,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack enabled",
          "expect": {
            "error": "DualStack is enabled but this partition does not support DualStack"
          },
          "params": {
            "Region": "us-isob-east-1",
            "UseFIPS": false,
            "UseDualStack": true
          }
        },
        {
```

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                "documentation": "For custom endpoint with region set and fips disabled and dualstack disabled",

    "expect": {
                    "endpoint": {
                      "url": "https://example.com"
                    }
                  },
                  "params": {
                    "Region": "us-east-1",
                    "UseFIPS": false,
                    "UseDualStack": false,
                    "Endpoint": "https://example.com"
                  }
                },
                {
                  "documentation": "For custom endpoint with region not set and fips disabled and dualstack
disabled",
                  "expect": {
                    "endpoint": {
                      "url": "https://example.com"
                    }
                  },
                  "params": {
                    "UseFIPS": false,

        "UseDualStack": false,
                    "Endpoint": "https://example.com"
                  }
                },
                {
                  "documentation": "For custom endpoint with fips enabled and dualstack disabled",
                  "expect": {
                    "error": "Invalid Configuration: FIPS and custom endpoint are not supported"
                  },
                  "params": {
                    "Region": "us-east-1",
                    "UseFIPS": true,
                    "UseDualStack": false,
                    "Endpoint": "https://example.com"
                  }
                },
                {
                  "documentation": "For custom endpoint with fips disabled and dualstack enabled",
                  "expect": {
                    "error":
 "Invalid Configuration: Dualstack and custom endpoint are not supported"
                  },
                  "params": {
```

```
                    "Region": "us-east-1",
                    "UseFIPS": false,
                    "UseDualStack": true,
                    "Endpoint": "https://example.com"
                  }
                },
                {
                  "documentation": "Missing region",
                  "expect": {
                    "error": "Invalid Configuration: Missing Region"
                  }
                }
              ],
              "version": "1.0"
            }
          }
        },
        "com.amazonaws.licensemanager#AcceptGrant": {
          "type": "operation",
          "input": {
            "target": "com.amazonaws.licensemanager#AcceptGrantRequest"

},
          "output": {
            "target": "com.amazonaws.licensemanager#AcceptGrantResponse"
          },
          "errors": [
            {
              "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
              "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
              "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
              "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
              "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
              "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
              "target": "com.amazonaws.licensemanager#ValidationException"
```

```
    }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Accepts the specified grant.</p>"
        }
    },
    "com.amazonaws.licensemanager#AcceptGrantRequest": {
        "type": "structure",
        "members": {
            "GrantArn": {
                "target": "com.amazonaws.licensemanager#Arn",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the grant.</p>",
                    "smithy.api#required": {}
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#AcceptGrantResponse": {
        "type": "structure",
        "members": {
            "GrantArn": {
                "target": "com.amazonaws.licensemanager#Arn",
                "traits": {
                    "smithy.api#documentation": "<p>Grant
ARN.</p>"
                }
            },
            "Status": {
                "target": "com.amazonaws.licensemanager#GrantStatus",
                "traits": {
                    "smithy.api#documentation": "<p>Grant status.</p>"
                }
            },
            "Version": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Grant version.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#output": {}
        }
    },
```

```
    "com.amazonaws.licensemanager#AccessDeniedException": {
      "type": "structure",
      "members": {
        "Message": {
          "target": "com.amazonaws.licensemanager#Message"
        }
      },
      "traits": {
        "aws.protocols#awsQueryError": {

"code": "ServiceAccessDenied",
          "httpResponseCode": 401
        },
        "smithy.api#documentation": "<p>Access to resource denied.</p>",
        "smithy.api#error": "client",
        "smithy.api#httpError": 401
      }
    },
    "com.amazonaws.licensemanager#ActivationOverrideBehavior": {
      "type": "enum",
      "members": {
        "DISTRIBUTED_GRANTS_ONLY": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "DISTRIBUTED_GRANTS_ONLY"
          }
        },
        "ALL_GRANTS_PERMITTED_BY_ISSUER": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "ALL_GRANTS_PERMITTED_BY_ISSUER"
          }
        }
      }
    },
    "com.amazonaws.licensemanager#AllowedOperation": {

   "type": "enum",
      "members": {
        "CREATE_GRANT": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "CreateGrant"
          }
        },
        "CHECKOUT_LICENSE": {
          "target": "smithy.api#Unit",
          "traits": {
```

```
                "smithy.api#enumValue": "CheckoutLicense"
              }
            },
            "CHECKOUT_BORROW_LICENSE": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "CheckoutBorrowLicense"
              }
            },
            "CHECK_IN_LICENSE": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "CheckInLicense"
              }
            },
            "EXTEND_CONSUMPTION_LICENSE":
{
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "ExtendConsumptionLicense"
              }
            },
            "LIST_PURCHASED_LICENSES": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "ListPurchasedLicenses"
              }
            },
            "CREATE_TOKEN": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "CreateToken"
              }
            }
          }
        },
        "com.amazonaws.licensemanager#AllowedOperationList": {
          "type": "list",
          "member": {
            "target": "com.amazonaws.licensemanager#AllowedOperation"
          },
          "traits": {
            "smithy.api#length": {
              "min": 1,
              "max":
7
            }
          }
```

```
    },
    "com.amazonaws.licensemanager#Arn": {
      "type": "string",
      "traits": {
        "smithy.api#length": {
          "min": 0,
          "max": 2048
        },
        "smithy.api#pattern": "^arn:aws(-(cn|us-gov|iso-b|iso-c|iso-d))?:[A-Za-z0-9][A-Za-z0-9_/.-]{0,62}:[A-Za-
z0-9_/.-]{0,63}:[A-Za-z0-9_/.-]{0,63}:[A-Za-z0-9][A-Za-z0-9:_/+=,@.-]{0,1023}$"
      }
    },
    "com.amazonaws.licensemanager#ArnList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanager#Arn"
      }
    },
    "com.amazonaws.licensemanager#AuthorizationException": {
      "type": "structure",
      "members": {
        "Message": {
          "target": "com.amazonaws.licensemanager#Message"
        }
      },
      "traits": {
        "aws.protocols#awsQueryError":
{
          "code": "AuthorizationFailure",
          "httpResponseCode": 403
        },
        "smithy.api#documentation": "<p>The Amazon Web Services user account does not have permission to
perform the action. Check the IAM\n        policy associated with this account.</p>",
        "smithy.api#error": "client",
        "smithy.api#httpError": 403
      }
    },
    "com.amazonaws.licensemanager#AutomatedDiscoveryInformation": {
      "type": "structure",
      "members": {
        "LastRunTime": {
          "target": "com.amazonaws.licensemanager#DateTime",
          "traits": {
            "smithy.api#documentation": "<p>Time that automated discovery last ran.</p>"
          }
        }
      },
      "traits": {
```

```
            "smithy.api#documentation": "<p>Describes automated discovery.</p>"
        }
    },

 "com.amazonaws.licensemanager#Boolean": {
        "type": "boolean",
        "traits": {
            "smithy.api#default": false
        }
    },
    "com.amazonaws.licensemanager#BorrowConfiguration": {
        "type": "structure",
        "members": {
            "AllowEarlyCheckIn": {
                "target": "com.amazonaws.licensemanager#BoxBoolean",
                "traits": {
                    "smithy.api#documentation": "<p>Indicates whether early check-ins are allowed.</p>",
                    "smithy.api#required": {}
                }
            },
            "MaxTimeToLiveInMinutes": {
                "target": "com.amazonaws.licensemanager#BoxInteger",
                "traits": {
                    "smithy.api#documentation": "<p>Maximum time for the borrow configuration, in minutes.</p>",
                    "smithy.api#required": {}
                }
            }

},
        "traits": {
            "smithy.api#documentation": "<p>Details about a borrow configuration.</p>"
        }
    },
    "com.amazonaws.licensemanager#BoxBoolean": {
        "type": "boolean"
    },
    "com.amazonaws.licensemanager#BoxInteger": {
        "type": "integer"
    },
    "com.amazonaws.licensemanager#BoxLong": {
        "type": "long"
    },
    "com.amazonaws.licensemanager#CheckInLicense": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#CheckInLicenseRequest"
        },
        "output": {
```

```
            "target": "com.amazonaws.licensemanager#CheckInLicenseResponse"
          },
          "errors": [
            {
              "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
              "target": "com.amazonaws.licensemanager#AuthorizationException"

        },
            {
              "target": "com.amazonaws.licensemanager#ConflictException"
            },
            {
              "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
              "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
              "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
            },
            {
              "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
              "target": "com.amazonaws.licensemanager#ValidationException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Checks in the specified license. Check in a license when it is no longer
in use.</p>"
          }
        },
        "com.amazonaws.licensemanager#CheckInLicenseRequest":
 {
          "type": "structure",
          "members": {
            "LicenseConsumptionToken": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>License consumption token.</p>",
                "smithy.api#required": {}
              }
            },
            "Beneficiary": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
```

```
                "smithy.api#documentation": "<p>License beneficiary.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#input": {}
          }
        },
        "com.amazonaws.licensemanager#CheckInLicenseResponse": {
          "type": "structure",
          "members": {},
          "traits": {
            "smithy.api#output": {}
          }
        },
        "com.amazonaws.licensemanager#CheckoutBorrowLicense":
{
          "type": "operation",
          "input": {
            "target": "com.amazonaws.licensemanager#CheckoutBorrowLicenseRequest"
          },
          "output": {
            "target": "com.amazonaws.licensemanager#CheckoutBorrowLicenseResponse"
          },
          "errors": [
            {
              "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
              "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
              "target": "com.amazonaws.licensemanager#EntitlementNotAllowedException"
            },
            {
              "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
              "target": "com.amazonaws.licensemanager#NoEntitlementsAllowedException"
            },
            {
              "target":
"com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
              "target": "com.amazonaws.licensemanager#RedirectException"
            },
            {
```

```
            "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          },
          {
            "target": "com.amazonaws.licensemanager#UnsupportedDigitalSignatureMethodException"
          },
          {
            "target": "com.amazonaws.licensemanager#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Checks out the specified license for offline use.</p>"
        }
      },
      "com.amazonaws.licensemanager#CheckoutBorrowLicenseRequest": {
        "type": "structure",
        "members":
{
          "LicenseArn": {
            "target": "com.amazonaws.licensemanager#Arn",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license. The license must
use the borrow consumption configuration.</p>",
              "smithy.api#required": {}
            }
          },
          "Entitlements": {
            "target": "com.amazonaws.licensemanager#EntitlementDataList",
            "traits": {
              "smithy.api#documentation": "<p>License entitlements. Partial checkouts are not supported.</p>",
              "smithy.api#required": {}
            }
          },
          "DigitalSignatureMethod": {
            "target": "com.amazonaws.licensemanager#DigitalSignatureMethod",
            "traits": {
              "smithy.api#documentation": "<p>Digital signature method. The possible
 value is JSON Web Signature (JWS) algorithm PS384.\n        For more information, see <a
href=\"https://tools.ietf.org/html/rfc7518#section-3.5\">RFC 7518 Digital Signature with RSASSA-PSS</a>.</p>",
              "smithy.api#required": {}
            }
          },
          "NodeId": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Node ID.</p>"
```

```
            }
          },
          "CheckoutMetadata": {
            "target": "com.amazonaws.licensemanager#MetadataList",
            "traits": {
              "smithy.api#documentation": "<p>Information about constraints.</p>"
            }
          },
          "ClientToken": {
            "target": "com.amazonaws.licensemanager#ClientToken",
            "traits": {
              "smithy.api#documentation":
"<p>Unique, case-sensitive identifier that you provide to ensure the idempotency of the request.</p>",
              "smithy.api#required": {}
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#CheckoutBorrowLicenseResponse": {
        "type": "structure",
        "members": {
          "LicenseArn": {
            "target": "com.amazonaws.licensemanager#Arn",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>"
            }
          },
          "LicenseConsumptionToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>License consumption token.</p>"
            }
          },
          "EntitlementsAllowed":
{
            "target": "com.amazonaws.licensemanager#EntitlementDataList",
            "traits": {
              "smithy.api#documentation": "<p>Allowed license entitlements.</p>"
            }
          },
          "NodeId": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Node ID.</p>"
            }
```

```
            },
            "SignedToken": {
              "target": "com.amazonaws.licensemanager#SignedToken",
              "traits": {
                "smithy.api#documentation": "<p>Signed token.</p>"
              }
            },
            "IssuedAt": {
              "target": "com.amazonaws.licensemanager#ISO8601DateTime",
              "traits": {
                "smithy.api#documentation": "<p>Date and time at which the license checkout
is issued.</p>"
              }
            },
            "Expiration": {
              "target": "com.amazonaws.licensemanager#ISO8601DateTime",
              "traits": {
                "smithy.api#documentation": "<p>Date and time at which the license checkout expires.</p>"
              }
            },
            "CheckoutMetadata": {
              "target": "com.amazonaws.licensemanager#MetadataList",
              "traits": {
                "smithy.api#documentation": "<p>Information about constraints.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#output": {}
          }
        },
        "com.amazonaws.licensemanager#CheckoutLicense": {
          "type": "operation",
          "input": {
            "target": "com.amazonaws.licensemanager#CheckoutLicenseRequest"
          },
          "output": {
            "target": "com.amazonaws.licensemanager#CheckoutLicenseResponse"
           },
          "errors": [
            {
              "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
              "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
              "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
```

```
            },
            {
               "target": "com.amazonaws.licensemanager#NoEntitlementsAllowedException"
            },
            {
               "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
               "target": "com.amazonaws.licensemanager#RedirectException"
            },
            {
               "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
            },
            {
               "target":
"com.amazonaws.licensemanager#ServerInternalException"
            },
            {
               "target": "com.amazonaws.licensemanager#UnsupportedDigitalSignatureMethodException"
            },
            {
               "target": "com.amazonaws.licensemanager#ValidationException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Checks out the specified license.</p>\n        <note>\n           <p>If the
account that created the license is the same that is performing the check out, you must\n           specify the account
as the beneficiary.</p>\n        </note>"
         }
      },
      "com.amazonaws.licensemanager#CheckoutLicenseRequest": {
         "type": "structure",
         "members": {
            "ProductSKU": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Product
SKU.</p>",
                  "smithy.api#required": {}
               }
            },
            "CheckoutType": {
               "target": "com.amazonaws.licensemanager#CheckoutType",
               "traits": {
                  "smithy.api#documentation": "<p>Checkout type.</p>",
                  "smithy.api#required": {}
               }
            },
```

```
            "KeyFingerprint": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Key fingerprint identifying the license.</p>",
                "smithy.api#required": {}
              }
            },
            "Entitlements": {
              "target": "com.amazonaws.licensemanager#EntitlementDataList",
              "traits": {
                "smithy.api#documentation": "<p>License entitlements.</p>",

        "smithy.api#required": {}
              }
            },
            "ClientToken": {
              "target": "com.amazonaws.licensemanager#ClientToken",
              "traits": {
                "smithy.api#documentation": "<p>Unique, case-sensitive identifier that you provide to ensure the
idempotency of the request.</p>",
                "smithy.api#required": {}
              }
            },
            "Beneficiary": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>License beneficiary.</p>"
              }
            },
            "NodeId": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Node ID.</p>"
              }
            }
          },
          "traits": {

          "smithy.api#input": {}
          }
        },
        "com.amazonaws.licensemanager#CheckoutLicenseResponse": {
          "type": "structure",
          "members": {
            "CheckoutType": {
              "target": "com.amazonaws.licensemanager#CheckoutType",
              "traits": {
                "smithy.api#documentation": "<p>Checkout type.</p>"
```

```
            }
          },
          "LicenseConsumptionToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>License consumption token.</p>"
            }
          },
          "EntitlementsAllowed": {
            "target": "com.amazonaws.licensemanager#EntitlementDataList",
            "traits": {
              "smithy.api#documentation": "<p>Allowed license entitlements.</p>"
            }
          },
           "SignedToken": {
            "target": "com.amazonaws.licensemanager#SignedToken",
            "traits": {
              "smithy.api#documentation": "<p>Signed token.</p>"
            }
          },
          "NodeId": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Node ID.</p>"
            }
          },
          "IssuedAt": {
            "target": "com.amazonaws.licensemanager#ISO8601DateTime",
            "traits": {
              "smithy.api#documentation": "<p>Date and time at which the license checkout is issued.</p>"
            }
          },
          "Expiration": {
            "target": "com.amazonaws.licensemanager#ISO8601DateTime",
            "traits": {
              "smithy.api#documentation": "<p>Date and
time at which the license checkout expires.</p>"
            }
          },
          "LicenseArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the checkout license.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
```

```
    }
  },
  "com.amazonaws.licensemanager#CheckoutType": {
    "type": "enum",
    "members": {
      "PROVISIONAL": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "PROVISIONAL"
        }
      },
      "PERPETUAL": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "PERPETUAL"
        }
       }
    }
  },
  "com.amazonaws.licensemanager#ClientRequestToken": {
    "type": "string",
    "traits": {
      "smithy.api#length": {
        "min": 1,
        "max": 36
      }
    }
  },
  "com.amazonaws.licensemanager#ClientToken": {
    "type": "string",
    "traits": {
      "smithy.api#length": {
        "min": 0,
        "max": 2048
      },
      "smithy.api#pattern": "^\\S+$"
    }
  },
  "com.amazonaws.licensemanager#ConflictException": {
    "type": "structure",
    "members": {
      "Message": {
        "target": "com.amazonaws.licensemanager#Message"
      }
    },
    "traits": {
      "aws.protocols#awsQueryError": {
        "code": "ConflictException",
```

```
            "httpResponseCode":
409
            },
            "smithy.api#documentation": "<p>There was a conflict processing the request. Try your request
again.</p>",
            "smithy.api#error": "client",
            "smithy.api#httpError": 409
          }
        },
        "com.amazonaws.licensemanager#ConsumedLicenseSummary": {
          "type": "structure",
          "members": {
            "ResourceType": {
              "target": "com.amazonaws.licensemanager#ResourceType",
              "traits": {
                "smithy.api#documentation": "<p>Resource type of the resource consuming a license.</p>"
              }
            },
            "ConsumedLicenses": {
              "target": "com.amazonaws.licensemanager#BoxLong",
              "traits": {
                "smithy.api#documentation": "<p>Number of licenses consumed by the resource.</p>"
              }
            }
          },

 "traits": {
            "smithy.api#documentation": "<p>Details about license consumption.</p>"
          }
        },
        "com.amazonaws.licensemanager#ConsumedLicenseSummaryList": {
          "type": "list",
          "member": {
            "target": "com.amazonaws.licensemanager#ConsumedLicenseSummary"
          }
        },
        "com.amazonaws.licensemanager#ConsumptionConfiguration": {
          "type": "structure",
          "members": {
            "RenewType": {
              "target": "com.amazonaws.licensemanager#RenewType",
              "traits": {
                "smithy.api#documentation": "<p>Renewal frequency.</p>"
              }
            },
            "ProvisionalConfiguration": {
              "target": "com.amazonaws.licensemanager#ProvisionalConfiguration",
              "traits": {
```

```
                "smithy.api#documentation": "<p>Details about a provisional configuration.</p>"
              }
            },
            "BorrowConfiguration": {
              "target": "com.amazonaws.licensemanager#BorrowConfiguration",
              "traits": {
                "smithy.api#documentation": "<p>Details about a borrow configuration.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>Details about a consumption configuration.</p>"
          }
        },
        "com.amazonaws.licensemanager#CreateGrant": {
          "type": "operation",
          "input": {
            "target": "com.amazonaws.licensemanager#CreateGrantRequest"
          },
          "output": {
            "target": "com.amazonaws.licensemanager#CreateGrantResponse"
          },
          "errors": [
            {
              "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
              "target":
"com.amazonaws.licensemanager#AuthorizationException"
            },
            {
              "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
              "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
              "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
              "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
              "target": "com.amazonaws.licensemanager#ValidationException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Creates a grant for the specified license. A grant shares the use of
```

```
license\n        entitlements with a specific Amazon Web Services account, an organization, or an\n
organizational unit (OU). For more
 information, see <a href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/granted-
licenses.html\">Granted licenses in License Manager</a> in the <i>License Manager User Guide</i>.</p>"
          }
       },
       "com.amazonaws.licensemanager#CreateGrantRequest": {
          "type": "structure",
          "members": {
             "ClientToken": {
                "target": "com.amazonaws.licensemanager#ClientToken",
                "traits": {
                   "smithy.api#documentation": "<p>Unique, case-sensitive identifier that you provide to ensure the
idempotency of the request.</p>",
                   "smithy.api#required": {}
                }
             },
             "GrantName": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                   "smithy.api#documentation": "<p>Grant name.</p>",
                   "smithy.api#required": {}

    }
             },
             "LicenseArn": {
                "target": "com.amazonaws.licensemanager#Arn",
                "traits": {
                   "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>",
                   "smithy.api#required": {}
                }
             },
             "Principals": {
                "target": "com.amazonaws.licensemanager#PrincipalArnList",
                "traits": {
                   "smithy.api#documentation": "<p>The grant principals. You can specify one of the following as an
Amazon Resource Name\n        (ARN):</p>\n        <ul>\n        <li>\n        <p>An Amazon Web Services
account, which includes only the account specified.</p>\n        </li>\n        </ul>\n        <ul>\n        <li>\n
    <p>An organizational unit (OU), which includes all accounts in the OU.</p>\n        </li>\n        </ul>\n
<ul>\n
          <li>\n        <p>An organization, which will include all accounts across your organization.</p>\n
</li>\n        </ul>",
                   "smithy.api#required": {}
                }
             },
             "HomeRegion": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
```

```
                "smithy.api#documentation": "<p>Home Region of the grant.</p>",
                "smithy.api#required": {}
            }
        },
        "AllowedOperations": {
            "target": "com.amazonaws.licensemanager#AllowedOperationList",
            "traits": {
                "smithy.api#documentation": "<p>Allowed operations for the grant.</p>",
                "smithy.api#required": {}
            }
        }
    },
    "traits": {
        "smithy.api#input": {}
    }
},

"com.amazonaws.licensemanager#CreateGrantResponse": {
    "type": "structure",
    "members": {
        "GrantArn": {
            "target": "com.amazonaws.licensemanager#Arn",
            "traits": {
                "smithy.api#documentation": "<p>Grant ARN.</p>"
            }
        },
        "Status": {
            "target": "com.amazonaws.licensemanager#GrantStatus",
            "traits": {
                "smithy.api#documentation": "<p>Grant status.</p>"
            }
        },
        "Version": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Grant version.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#output": {}
    }
},
"com.amazonaws.licensemanager#CreateGrantVersion":
{
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanager#CreateGrantVersionRequest"
```

```
        },
        "output": {
            "target": "com.amazonaws.licensemanager#CreateGrantVersionResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
             },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Creates a new version of the specified grant. For more information,
see\n        <a href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/granted-
licenses.html\">Granted licenses in License Manager</a> in the <i>License Manager User Guide</i>.</p>"
        }
    },
    "com.amazonaws.licensemanager#CreateGrantVersionRequest": {
        "type": "structure",
        "members": {
            "ClientToken": {
                "target": "com.amazonaws.licensemanager#ClientToken",
                "traits": {
                    "smithy.api#documentation": "<p>Unique, case-sensitive identifier that you provide to ensure the
idempotency of the request.</p>",

  "smithy.api#required": {}
                }
            },
            "GrantArn": {
                "target": "com.amazonaws.licensemanager#Arn",
                "traits": {
```

```
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the grant.</p>",
            "smithy.api#required": {}
          }
        },
        "GrantName": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Grant name.</p>"
          }
        },
        "AllowedOperations": {
          "target": "com.amazonaws.licensemanager#AllowedOperationList",
          "traits": {
            "smithy.api#documentation": "<p>Allowed operations for the grant.</p>"
          }
        },
        "Status": {
          "target": "com.amazonaws.licensemanager#GrantStatus",
          "traits": {
            "smithy.api#documentation": "<p>Grant status.</p>"
          }
        },
        "StatusReason": {
          "target": "com.amazonaws.licensemanager#StatusReasonMessage",
          "traits": {
            "smithy.api#documentation": "<p>Grant status reason.</p>"
          }
        },
        "SourceVersion": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Current version of the grant.</p>"
          }
        },
        "Options": {
          "target": "com.amazonaws.licensemanager#Options",
          "traits": {
            "smithy.api#documentation": "<p>The options specified for the grant.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#CreateGrantVersionResponse": {
      "type": "structure",
      "members": {
```

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            "GrantArn": {
               "target": "com.amazonaws.licensemanager#Arn",
               "traits": {
                  "smithy.api#documentation": "<p>Grant ARN.</p>"
               }
            },
            "Status": {
               "target": "com.amazonaws.licensemanager#GrantStatus",
               "traits": {
                  "smithy.api#documentation": "<p>Grant status.</p>"
               }
            },
            "Version": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>New version of the grant.</p>"
               }
            }
         },
         "traits":
{
            "smithy.api#output": {}
         }
      },
      "com.amazonaws.licensemanager#CreateLicense": {
         "type": "operation",
         "input": {
            "target": "com.amazonaws.licensemanager#CreateLicenseRequest"
         },
         "output": {
            "target": "com.amazonaws.licensemanager#CreateLicenseResponse"
         },
         "errors": [
            {
               "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
               "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
               "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
               "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
               "target": "com.amazonaws.licensemanager#RedirectException"
```

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            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Creates a license.</p>"
        }
    },
    "com.amazonaws.licensemanager#CreateLicenseConfiguration": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#CreateLicenseConfigurationRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#CreateLicenseConfigurationResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Creates a license configuration.</p>\n            <p>A license configuration is an abstraction of a customer license agreement that can be\n            consumed and enforced by License Manager. Components include specifications for the license\n            type (licensing by instance, socket, CPU, or vCPU), allowed tenancy (shared tenancy, \n            Dedicated Instance, Dedicated Host, or
            all of these), license affinity  to host (how long a \n            license must be associated with a host), and the number of licenses purchased and used.</p>"
        }
```

```
    },
    "com.amazonaws.licensemanager#CreateLicenseConfigurationRequest": {
      "type": "structure",
      "members": {
        "Name": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Name of the license configuration.</p>",
            "smithy.api#required": {}
          }
        },
        "Description": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Description of the license configuration.</p>"
          }
        },
        "LicenseCountingType": {
          "target": "com.amazonaws.licensemanager#LicenseCountingType",
           "traits": {
            "smithy.api#documentation": "<p>Dimension used to track the license inventory.</p>",
            "smithy.api#required": {}
          }
        },
        "LicenseCount": {
          "target": "com.amazonaws.licensemanager#BoxLong",
          "traits": {
            "smithy.api#documentation": "<p>Number of licenses managed by the license configuration.</p>"
          }
        },
        "LicenseCountHardLimit": {
          "target": "com.amazonaws.licensemanager#BoxBoolean",
          "traits": {
            "smithy.api#documentation": "<p>Indicates whether hard or soft license enforcement is used.
Exceeding a hard limit\n        blocks the launch of new instances.</p>"
          }
        },
        "LicenseRules": {
          "target":
 "com.amazonaws.licensemanager#StringList",
          "traits": {
            "smithy.api#documentation": "<p>License rules. The syntax is #name=value (for example,
#allowedTenancy=EC2-DedicatedHost). The available rules \n        vary by dimension, as follows.</p>\n
<ul>\n          <li>\n            <p>\n              <code>Cores</code> dimension: <code>allowedTenancy</code> |\n
          <code>licenseAffinityToHost</code> |\n            <code>maximumCores</code> |
<code>minimumCores</code>\n            </p>\n          </li>\n          <li>\n            <p>\n
<code>Instances</code> dimension: <code>allowedTenancy</code> | \n            <code>maximumCores</code> |
<code>minimumCores</code> |\n            <code>maximumSockets</code> | <code>minimumSockets</code> |\n
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        <code>maximumVcpus</code> | <code>minimumVcpus</code>\n            </p>\n          </li>\n
<li>\n
  <p>\n              <code>Sockets</code> dimension: <code>allowedTenancy</code> | \n
<code>licenseAffinityToHost</code> |\n            <code>maximumSockets</code> |
<code>minimumSockets</code>\n            </p>\n          </li>\n          <li>\n            <p>\n
<code>vCPUs</code> dimension: <code>allowedTenancy</code> | \n
<code>honorVcpuOptimization</code> | \n            <code>maximumVcpus</code> |
<code>minimumVcpus</code>\n            </p>\n          </li>\n        </ul>\n        <p>The unit for
<code>licenseAffinityToHost</code> is days and the range is 1 to 180. The possible \n        values for
<code>allowedTenancy</code> are <code>EC2-Default</code>, <code>EC2-DedicatedHost</code>, and \n
<code>EC2-DedicatedInstance</code>. The possible values for <code>honorVcpuOptimization</code> are \n
<code>True</code> and <code>False</code>.</p>"
            }
          },

  "Tags": {
            "target": "com.amazonaws.licensemanager#TagList",
            "traits": {
              "smithy.api#documentation": "<p>Tags to add to the license configuration.</p>"
            }
          },
          "DisassociateWhenNotFound": {
            "target": "com.amazonaws.licensemanager#BoxBoolean",
            "traits": {
              "smithy.api#documentation": "<p>When true, disassociates a resource when software is
uninstalled.</p>"
            }
          },
          "ProductInformationList": {
            "target": "com.amazonaws.licensemanager#ProductInformationList",
            "traits": {
              "smithy.api#documentation": "<p>Product information.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#CreateLicenseConfigurationResponse":
{
        "type": "structure",
        "members": {
          "LicenseConfigurationArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license configuration.</p>"
            }
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            }
        },
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#CreateLicenseConversionTaskForResource": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#CreateLicenseConversionTaskForResourceRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#CreateLicenseConversionTaskForResourceResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
             },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Creates a new license conversion task.</p>"
        }
    },
    "com.amazonaws.licensemanager#CreateLicenseConversionTaskForResourceRequest": {
        "type": "structure",
        "members": {
            "ResourceArn": {

                "target": "com.amazonaws.licensemanager#Arn",
                 "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the resource you are converting
the license type for.</p>",
                    "smithy.api#required": {}
```

```
            }
          },
          "SourceLicenseContext": {
            "target": "com.amazonaws.licensemanager#LicenseConversionContext",
            "traits": {
              "smithy.api#documentation": "<p>Information that identifies the license type you are converting
from. \n\n        For the structure of the source license, see <a href=\"https://docs.aws.amazon.com/license-
manager/latest/userguide/conversion-procedures.html#conversion-cli\">Convert a license type using the CLI </a> in
the <i>License Manager User Guide</i>.</p>",
              "smithy.api#required": {}
            }
          },
          "DestinationLicenseContext":
{
            "target": "com.amazonaws.licensemanager#LicenseConversionContext",
            "traits": {
              "smithy.api#documentation": "<p>Information that identifies the license type you are converting to.
For the structure of the destination license, see <a href=\"https://docs.aws.amazon.com/license-
manager/latest/userguide/conversion-procedures.html#conversion-cli\">Convert a license type using the CLI </a> in
the <i>License Manager User Guide</i>.</p>",
              "smithy.api#required": {}
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#CreateLicenseConversionTaskForResourceResponse": {
        "type": "structure",
        "members": {
          "LicenseConversionTaskId": {
            "target": "com.amazonaws.licensemanager#LicenseConversionTaskId",

        "traits": {
              "smithy.api#documentation": "<p>The ID of the created license type conversion task.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#CreateLicenseManagerReportGenerator": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#CreateLicenseManagerReportGeneratorRequest"
        },
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      "output": {
        "target": "com.amazonaws.licensemanager#CreateLicenseManagerReportGeneratorResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
         },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
          "target": "com.amazonaws.licensemanager#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Creates a report generator.</p>"
      }
    },
    "com.amazonaws.licensemanager#CreateLicenseManagerReportGeneratorRequest": {
      "type": "structure",
      "members": {
        "ReportGeneratorName":
{
          "target": "com.amazonaws.licensemanager#ReportGeneratorName",
          "traits": {
            "smithy.api#documentation": "<p>Name of the report generator.</p>",
            "smithy.api#required": {}
          }
        },
        "Type": {
          "target": "com.amazonaws.licensemanager#ReportTypeList",
          "traits": {
            "smithy.api#documentation": "<p>Type of reports to generate. The following report types an be
```

generated: \n \n \n License configuration report - Reports the number and details of consumed licenses for a license configuration. \n \n \n Resource report - Reports the tracked licenses and resource consumption for a license configuration. \n \n ",
"smithy.api#required": {}

}
},
"ReportContext": {
"target": "com.amazonaws.licensemanager#ReportContext",
"traits": {
"smithy.api#documentation": " Defines the type of license configuration the report generator tracks. ",
"smithy.api#required": {}
}
},
"ReportFrequency": {
"target": "com.amazonaws.licensemanager#ReportFrequency",
"traits": {
"smithy.api#documentation": " Frequency by which reports are generated. Reports can be generated daily, monthly, or weekly. ",
"smithy.api#required": {}
}
},
"ClientToken": {
"target": "com.amazonaws.licensemanager#ClientRequestToken",
"traits": {
"smithy.api#documentation": " Unique, case-sensitive identifier that you provide to ensure the idempotency of the request. ",
"smithy.api#required": {}
}
},
"Description": {
"target": "com.amazonaws.licensemanager#String",
"traits": {
"smithy.api#documentation": " Description of the report generator. "
}
},
"Tags": {
"target": "com.amazonaws.licensemanager#TagList",
"traits": {
"smithy.api#documentation": " Tags to add to the report generator. "
}
}
},
"traits": {
"smithy.api#input": {}
}

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    },
    "com.amazonaws.licensemanager#CreateLicenseManagerReportGeneratorResponse": {
      "type": "structure",
      "members": {
        "LicenseManagerReportGeneratorArn":
{
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the new report
generator.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanager#CreateLicenseRequest": {
      "type": "structure",
      "members": {
        "LicenseName": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>License name.</p>",
            "smithy.api#required": {}
          }
        },
        "ProductName": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Product
name.</p>",
            "smithy.api#required": {}
          }
        },
        "ProductSKU": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Product SKU.</p>",
            "smithy.api#required": {}
          }
        },
        "Issuer": {
          "target": "com.amazonaws.licensemanager#Issuer",
          "traits": {
            "smithy.api#documentation": "<p>License issuer.</p>",
            "smithy.api#required": {}
          }
```

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        },
        "HomeRegion": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Home Region for the license.</p>",
            "smithy.api#required": {}

  }
        },
        "Validity": {
          "target": "com.amazonaws.licensemanager#DatetimeRange",
          "traits": {
            "smithy.api#documentation": "<p>Date and time range during which the license is valid, in ISO8601-
UTC format.</p>",
            "smithy.api#required": {}
          }
        },
        "Entitlements": {
          "target": "com.amazonaws.licensemanager#EntitlementList",
          "traits": {
            "smithy.api#documentation": "<p>License entitlements.</p>",
            "smithy.api#required": {}
          }
        },
        "Beneficiary": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>License beneficiary.</p>",
            "smithy.api#required": {}
          }
         },
        "ConsumptionConfiguration": {
          "target": "com.amazonaws.licensemanager#ConsumptionConfiguration",
          "traits": {
            "smithy.api#documentation": "<p>Configuration for consumption of the license. Choose a provisional
configuration for workloads\n          running with continuous connectivity. Choose a borrow configuration for
workloads with offline\n          usage.</p>",
            "smithy.api#required": {}
          }
        },
        "LicenseMetadata": {
          "target": "com.amazonaws.licensemanager#MetadataList",
          "traits": {
            "smithy.api#documentation": "<p>Information about the license.</p>"
          }
        },
        "ClientToken": {
          "target": "com.amazonaws.licensemanager#ClientToken",
```

```
            "traits": {
                "smithy.api#documentation":
"<p>Unique, case-sensitive identifier that you provide to ensure the idempotency of the request.</p>",
                "smithy.api#required": {}
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#CreateLicenseResponse": {
        "type": "structure",
        "members": {
          "LicenseArn": {
            "target": "com.amazonaws.licensemanager#Arn",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>"
            }
          },
          "Status": {
            "target": "com.amazonaws.licensemanager#LicenseStatus",
            "traits": {
              "smithy.api#documentation": "<p>License status.</p>"
            }
          },
          "Version": {
             "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>License version.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#CreateLicenseVersion": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#CreateLicenseVersionRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#CreateLicenseVersionResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
```

```
            },
            {
               "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
               "target": "com.amazonaws.licensemanager#ConflictException"
             },
            {
               "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
               "target": "com.amazonaws.licensemanager#RedirectException"
            },
            {
               "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
            },
            {
               "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
               "target": "com.amazonaws.licensemanager#ValidationException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Creates a new version of the specified license.</p>"
         }
      },
      "com.amazonaws.licensemanager#CreateLicenseVersionRequest": {
         "type": "structure",
         "members": {
            "LicenseArn": {
               "target":
"com.amazonaws.licensemanager#Arn",
               "traits": {
                  "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>",
                  "smithy.api#required": {}
               }
            },
            "LicenseName": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>License name.</p>",
                  "smithy.api#required": {}
               }
            },
            "ProductName": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
```

```
                "smithy.api#documentation": "<p>Product name.</p>",
                "smithy.api#required": {}
            }
        },
        "Issuer": {
            "target": "com.amazonaws.licensemanager#Issuer",
            "traits":
{
                "smithy.api#documentation": "<p>License issuer.</p>",
                "smithy.api#required": {}
            }
        },
        "HomeRegion": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Home Region of the license.</p>",
                "smithy.api#required": {}
            }
        },
        "Validity": {
            "target": "com.amazonaws.licensemanager#DatetimeRange",
            "traits": {
                "smithy.api#documentation": "<p>Date and time range during which the license is valid, in ISO8601-
UTC format.</p>",
                "smithy.api#required": {}
            }
        },
        "LicenseMetadata": {
            "target": "com.amazonaws.licensemanager#MetadataList",
            "traits": {
                 "smithy.api#documentation": "<p>Information about the license.</p>"
            }
        },
        "Entitlements": {
            "target": "com.amazonaws.licensemanager#EntitlementList",
            "traits": {
                "smithy.api#documentation": "<p>License entitlements.</p>",
                "smithy.api#required": {}
            }
        },
        "ConsumptionConfiguration": {
            "target": "com.amazonaws.licensemanager#ConsumptionConfiguration",
            "traits": {
                "smithy.api#documentation": "<p>Configuration for consumption of the license. Choose a provisional
configuration for workloads\n         running with continuous connectivity. Choose a borrow configuration for
workloads with offline\n         usage.</p>",
                "smithy.api#required": {}
            }
```

```
            },

  "Status": {
                "target": "com.amazonaws.licensemanager#LicenseStatus",
                "traits": {
                    "smithy.api#documentation": "<p>License status.</p>",
                    "smithy.api#required": {}
                }
            },
            "ClientToken": {
                "target": "com.amazonaws.licensemanager#ClientToken",
                "traits": {
                    "smithy.api#documentation": "<p>Unique, case-sensitive identifier that you provide to ensure the
idempotency of the request.</p>",
                    "smithy.api#required": {}
                }
            },
            "SourceVersion": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Current version of the license.</p>"
                }
            }
        },
        "traits": {

 "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#CreateLicenseVersionResponse": {
        "type": "structure",
        "members": {
            "LicenseArn": {
                "target": "com.amazonaws.licensemanager#Arn",
                "traits": {
                    "smithy.api#documentation": "<p>License ARN.</p>"
                }
            },
            "Version": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>New version of the license.</p>"
                }
            },
            "Status": {
                "target": "com.amazonaws.licensemanager#LicenseStatus",
                "traits": {
                    "smithy.api#documentation": "<p>License status.</p>"
```

```
            }
          }
        },
        "traits": {
          "smithy.api#output":
{}
        }
      },
      "com.amazonaws.licensemanager#CreateToken": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#CreateTokenRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#CreateTokenResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#RedirectException"
          },
          {
            "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
          },

      {
            "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          },
          {
            "target": "com.amazonaws.licensemanager#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Creates a long-lived token.</p>\n          <p>A refresh token is a JWT
token used to get an access token. With an access token,\n          you can call AssumeRoleWithWebIdentity to get
role credentials that you can use to \n          call License Manager to manage the specified license.</p>"
        }
```

```
    },
    "com.amazonaws.licensemanager#CreateTokenRequest": {
      "type": "structure",
      "members": {
        "LicenseArn": {
          "target": "com.amazonaws.licensemanager#Arn",
          "traits":
{
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license. The ARN is
mapped to the aud claim of the\n          JWT token.</p>",
            "smithy.api#required": {}
          }
        },
        "RoleArns": {
          "target": "com.amazonaws.licensemanager#ArnList",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the IAM roles to embed in the
token. \n          License Manager does not check whether the roles are in use.</p>"
          }
        },
        "ExpirationInDays": {
          "target": "com.amazonaws.licensemanager#Integer",
          "traits": {
            "smithy.api#documentation": "<p>Token expiration, in days, counted from token creation. The
default is 365 days.</p>"
          }
        },
        "TokenProperties": {
           "target": "com.amazonaws.licensemanager#MaxSize3StringList",
          "traits": {
            "smithy.api#documentation": "<p>Data specified by the caller to be included in the JWT token. The
data is mapped\n          to the amr claim of the JWT token.</p>"
          }
        },
        "ClientToken": {
          "target": "com.amazonaws.licensemanager#ClientToken",
          "traits": {
            "smithy.api#documentation": "<p>Idempotency token, valid for 10 minutes.</p>",
            "smithy.api#required": {}
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#CreateTokenResponse": {
      "type": "structure",
```

```
    "members": {
      "TokenId": {
        "target": "com.amazonaws.licensemanager#String",

       "traits": {
          "smithy.api#documentation": "<p>Token ID.</p>"
        }
      },
      "TokenType": {
        "target": "com.amazonaws.licensemanager#TokenType",
        "traits": {
          "smithy.api#documentation": "<p>Token type.</p>"
        }
      },
      "Token": {
        "target": "com.amazonaws.licensemanager#TokenString",
        "traits": {
          "smithy.api#documentation": "<p>Refresh token, encoded as a JWT token.</p>"
        }
      }
    },
    "traits": {
      "smithy.api#output": {}
    }
  },
  "com.amazonaws.licensemanager#DateTime": {
    "type": "timestamp"
  },
  "com.amazonaws.licensemanager#DatetimeRange": {
    "type": "structure",
    "members": {
      "Begin": {
        "target": "com.amazonaws.licensemanager#ISO8601DateTime",
        "traits": {
          "smithy.api#documentation": "<p>Start of the time range.</p>",
          "smithy.api#required": {}
        }
      },
      "End": {
        "target": "com.amazonaws.licensemanager#ISO8601DateTime",
        "traits": {
          "smithy.api#documentation": "<p>End of the time range.</p>"
        }
      }
    },
    "traits": {
      "smithy.api#documentation": "<p>Describes a time range, in ISO8601-UTC format.</p>"
    }
```

```
    },
    "com.amazonaws.licensemanager#DeleteGrant": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#DeleteGrantRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#DeleteGrantResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
          "target": "com.amazonaws.licensemanager#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Deletes
the specified grant.</p>"
      }
    },
    "com.amazonaws.licensemanager#DeleteGrantRequest": {
      "type": "structure",
      "members": {
        "GrantArn": {
          "target": "com.amazonaws.licensemanager#Arn",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the grant.</p>",
            "smithy.api#required": {}
          }
        },
        "StatusReason": {
```

```
            "target": "com.amazonaws.licensemanager#StatusReasonMessage",
            "traits": {
              "smithy.api#documentation": "<p>The Status reason for the delete request.</p>"
            }
          },
          "Version": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Current version of the
grant.</p>",
              "smithy.api#required": {}
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#DeleteGrantResponse": {
        "type": "structure",
        "members": {
          "GrantArn": {
            "target": "com.amazonaws.licensemanager#Arn",
            "traits": {
              "smithy.api#documentation": "<p>Grant ARN.</p>"
            }
          },
          "Status": {
            "target": "com.amazonaws.licensemanager#GrantStatus",
            "traits": {
              "smithy.api#documentation": "<p>Grant status.</p>"
            }
          },
          "Version": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation":
"<p>Grant version.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#DeleteLicense": {
        "type": "operation",
        "input": {
```

```
            "target": "com.amazonaws.licensemanager#DeleteLicenseRequest"
          },
          "output": {
            "target": "com.amazonaws.licensemanager#DeleteLicenseResponse"
          },
          "errors": [
            {
              "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
              "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
              "target": "com.amazonaws.licensemanager#ConflictException"
            },
            {
              "target": "com.amazonaws.licensemanager#InvalidParameterValueException"

},
            {
              "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
              "target": "com.amazonaws.licensemanager#RedirectException"
            },
            {
              "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
              "target": "com.amazonaws.licensemanager#ValidationException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Deletes the specified license.</p>"
          }
        },
        "com.amazonaws.licensemanager#DeleteLicenseConfiguration": {
          "type": "operation",
          "input": {
            "target": "com.amazonaws.licensemanager#DeleteLicenseConfigurationRequest"
          },
          "output": {
            "target": "com.amazonaws.licensemanager#DeleteLicenseConfigurationResponse"
          },

        "errors": [
            {
              "target": "com.amazonaws.licensemanager#AccessDeniedException"
```

```
            },
            {
               "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
               "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
               "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
               "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Deletes the specified license configuration.</p>\n         <p>You cannot delete a license configuration that is in use.</p>"
         }
      },
      "com.amazonaws.licensemanager#DeleteLicenseConfigurationRequest": {
         "type": "structure",
         "members":
{
            "LicenseConfigurationArn": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>ID of the license configuration.</p>",
                  "smithy.api#required": {}
               }
            }
         },
         "traits": {
            "smithy.api#input": {}
         }
      },
      "com.amazonaws.licensemanager#DeleteLicenseConfigurationResponse": {
         "type": "structure",
         "members": {},
         "traits": {
            "smithy.api#output": {}
         }
      },
      "com.amazonaws.licensemanager#DeleteLicenseManagerReportGenerator": {
         "type": "operation",
         "input": {
            "target": "com.amazonaws.licensemanager#DeleteLicenseManagerReportGeneratorRequest"
         },
         "output": {
```

```
            "target": "com.amazonaws.licensemanager#DeleteLicenseManagerReportGeneratorResponse"
          },
          "errors": [
            {
              "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
              "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
              "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
              "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
              "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
              "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
            },
            {
              "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
              "target": "com.amazonaws.licensemanager#ValidationException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Deletes the specified report generator.</p>\n          <p>This action deletes the report generator, which stops it from generating future reports.\n          The action cannot be reversed. It has no effect on the previous reports from this generator.</p>"
          }
        },
        "com.amazonaws.licensemanager#DeleteLicenseManagerReportGeneratorRequest": {
          "type": "structure",
          "members": {
            "LicenseManagerReportGeneratorArn": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the report generator to be deleted.</p>",
                "smithy.api#required": {}
              }
            }
          },
          "traits": {
```

```
"smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#DeleteLicenseManagerReportGeneratorResponse": {
        "type": "structure",
        "members": {},
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#DeleteLicenseRequest": {
        "type": "structure",
        "members": {
            "LicenseArn": {
                "target": "com.amazonaws.licensemanager#Arn",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>",
                    "smithy.api#required": {}
                }
            },
            "SourceVersion": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Current version of the license.</p>",
                    "smithy.api#required":
{}
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#DeleteLicenseResponse": {
        "type": "structure",
        "members": {
            "Status": {
                "target": "com.amazonaws.licensemanager#LicenseDeletionStatus",
                "traits": {
                    "smithy.api#documentation": "<p>License status.</p>"
                }
            },
            "DeletionDate": {
                "target": "com.amazonaws.licensemanager#ISO8601DateTime",
                "traits": {
                    "smithy.api#documentation": "<p>Date when the license is deleted.</p>"
                }
            }
```

```
        },
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#DeleteToken": {
        "type": "operation",
         "input": {
            "target": "com.amazonaws.licensemanager#DeleteTokenRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#DeleteTokenResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#RedirectException"
            },
            {
                "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },

    {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Deletes the specified token. Must be called in the license home
Region.</p>"
        }
    },
    "com.amazonaws.licensemanager#DeleteTokenRequest": {
        "type": "structure",
        "members": {
            "TokenId": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
```

```
                "smithy.api#documentation": "<p>Token ID.</p>",
                "smithy.api#required": {}
              }
            }
          },
          "traits": {
            "smithy.api#input": {}
          }
        },
        "com.amazonaws.licensemanager#DeleteTokenResponse": {
          "type": "structure",
          "members": {},
          "traits": {
            "smithy.api#output": {}

         }
        },
        "com.amazonaws.licensemanager#DigitalSignatureMethod": {
          "type": "enum",
          "members": {
            "JWT_PS384": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "JWT_PS384"
              }
            }
          }
        },
        "com.amazonaws.licensemanager#Entitlement": {
          "type": "structure",
          "members": {
            "Name": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Entitlement name.</p>",
                "smithy.api#required": {}
              }
            },
            "Value": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Entitlement resource. Use only
if the unit is None.</p>"
              }
            },
            "MaxCount": {
              "target": "com.amazonaws.licensemanager#Long",
              "traits": {
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```
                "smithy.api#documentation": "<p>Maximum entitlement count. Use if the unit is not None.</p>"
              }
            },
            "Overage": {
              "target": "com.amazonaws.licensemanager#BoxBoolean",
              "traits": {
                "smithy.api#documentation": "<p>Indicates whether overages are allowed.</p>"
              }
            },
            "Unit": {
              "target": "com.amazonaws.licensemanager#EntitlementUnit",
              "traits": {
                "smithy.api#documentation": "<p>Entitlement unit.</p>",
                "smithy.api#required": {}
              }
            },
            "AllowCheckIn": {
              "target":
"com.amazonaws.licensemanager#BoxBoolean",
              "traits": {
                "smithy.api#documentation": "<p>Indicates whether check-ins are allowed.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>Describes a resource entitled for use with a license.</p>"
          }
        },
        "com.amazonaws.licensemanager#EntitlementData": {
          "type": "structure",
          "members": {
            "Name": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Entitlement data name.</p>",
                "smithy.api#required": {}
              }
            },
            "Value": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Entitlement
data value.</p>"
              }
            },
            "Unit": {
              "target": "com.amazonaws.licensemanager#EntitlementDataUnit",
              "traits": {
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```
                "smithy.api#documentation": "<p>Entitlement data unit.</p>",
                "smithy.api#required": {}
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>Data associated with an entitlement resource.</p>"
          }
        },
        "com.amazonaws.licensemanager#EntitlementDataList": {
          "type": "list",
          "member": {
            "target": "com.amazonaws.licensemanager#EntitlementData"
          }
        },
        "com.amazonaws.licensemanager#EntitlementDataUnit": {
          "type": "enum",
          "members": {
            "COUNT": {
              "target": "smithy.api#Unit",
              "traits": {

"smithy.api#enumValue": "Count"
              }
            },
            "NONE": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "None"
              }
            },
            "SECONDS": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "Seconds"
              }
            },
            "MICROSECONDS": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "Microseconds"
              }
            },
            "MILLISECONDS": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "Milliseconds"
              }
```

```
        },
        "BYTES": {
            "target": "smithy.api#Unit",
             "traits": {
                "smithy.api#enumValue": "Bytes"
            }
        },
        "KILOBYTES": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Kilobytes"
            }
        },
        "MEGABYTES": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Megabytes"
            }
        },
        "GIGABYTES": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Gigabytes"
            }
        },
        "TERABYTES": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Terabytes"
            }
        },
        "BITS":
{
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Bits"
            }
        },
        "KILOBITS": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Kilobits"
            }
        },
        "MEGABITS": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Megabits"
```

```
        }
      },
      "GIGABITS": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "Gigabits"
        }
      },
      "TERABITS": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "Terabits"

}
      },
      "PERCENT": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "Percent"
        }
      },
      "BYTES_PER_SECOND": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "Bytes/Second"
        }
      },
      "KILOBYTES_PER_SECOND": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "Kilobytes/Second"
        }
      },
      "MEGABYTES_PER_SECOND": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "Megabytes/Second"
        }
      },
      "GIGABYTES_PER_SECOND": {
        "target": "smithy.api#Unit",
         "traits": {
          "smithy.api#enumValue": "Gigabytes/Second"
        }
      },
      "TERABYTES_PER_SECOND": {
        "target": "smithy.api#Unit",
        "traits": {
```

```
                "smithy.api#enumValue": "Terabytes/Second"
              }
            },
            "BITS_PER_SECOND": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "Bits/Second"
              }
            },
            "KILOBITS_PER_SECOND": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "Kilobits/Second"
              }
            },
            "MEGABITS_PER_SECOND": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue":
"Megabits/Second"
              }
            },
            "GIGABITS_PER_SECOND": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "Gigabits/Second"
              }
            },
            "TERABITS_PER_SECOND": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "Terabits/Second"
              }
            },
            "COUNT_PER_SECOND": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "Count/Second"
              }
            }
          }
        },
        "com.amazonaws.licensemanager#EntitlementList": {
          "type": "list",
          "member": {
            "target": "com.amazonaws.licensemanager#Entitlement"
          }
        },
```

```
    "com.amazonaws.licensemanager#EntitlementNotAllowedException":
{
      "type": "structure",
      "members": {
        "Message": {
          "target": "com.amazonaws.licensemanager#Message"
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>The entitlement is not allowed.</p>",
        "smithy.api#error": "client",
        "smithy.api#httpError": 400
      }
    },
    "com.amazonaws.licensemanager#EntitlementUnit": {
      "type": "enum",
      "members": {
        "COUNT": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Count"
          }
        },
        "NONE": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "None"
          }
        },
        "SECONDS":
{
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Seconds"
          }
        },
        "MICROSECONDS": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Microseconds"
          }
        },
        "MILLISECONDS": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Milliseconds"
          }
        },
```

```
"BYTES": {
   "target": "smithy.api#Unit",
   "traits": {
      "smithy.api#enumValue": "Bytes"
   }
},
"KILOBYTES": {
   "target": "smithy.api#Unit",
   "traits": {
      "smithy.api#enumValue": "Kilobytes"
    }
},
"MEGABYTES": {
   "target": "smithy.api#Unit",
   "traits": {
      "smithy.api#enumValue": "Megabytes"
   }
},
"GIGABYTES": {
   "target": "smithy.api#Unit",
   "traits": {
      "smithy.api#enumValue": "Gigabytes"
   }
},
"TERABYTES": {
   "target": "smithy.api#Unit",
   "traits": {
      "smithy.api#enumValue": "Terabytes"
   }
},
"BITS": {
   "target": "smithy.api#Unit",
   "traits": {
      "smithy.api#enumValue": "Bits"
   }
},
"KILOBITS": {
   "target": "smithy.api#Unit",
   "traits": {

    "smithy.api#enumValue": "Kilobits"
   }
},
"MEGABITS": {
   "target": "smithy.api#Unit",
   "traits": {
      "smithy.api#enumValue": "Megabits"
   }
```

```
        },
        "GIGABITS": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Gigabits"
          }
        },
        "TERABITS": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Terabits"
          }
        },
        "PERCENT": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Percent"
          }
        },
        "BYTES_PER_SECOND": {
          "target":
"smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Bytes/Second"
          }
        },
        "KILOBYTES_PER_SECOND": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Kilobytes/Second"
          }
        },
        "MEGABYTES_PER_SECOND": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Megabytes/Second"
          }
        },
        "GIGABYTES_PER_SECOND": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Gigabytes/Second"
          }
        },
        "TERABYTES_PER_SECOND": {
          "target": "smithy.api#Unit",
          "traits": {
```

```
"smithy.api#enumValue": "Terabytes/Second"
                }
            },
            "BITS_PER_SECOND": {
                "target": "smithy.api#Unit",
                "traits": {
                    "smithy.api#enumValue": "Bits/Second"
                }
            },
            "KILOBITS_PER_SECOND": {
                "target": "smithy.api#Unit",
                "traits": {
                    "smithy.api#enumValue": "Kilobits/Second"
                }
            },
            "MEGABITS_PER_SECOND": {
                "target": "smithy.api#Unit",
                "traits": {
                    "smithy.api#enumValue": "Megabits/Second"
                }
            },
            "GIGABITS_PER_SECOND": {
                "target": "smithy.api#Unit",
                "traits": {
                    "smithy.api#enumValue": "Gigabits/Second"
                }
            },

        "TERABITS_PER_SECOND": {
                "target": "smithy.api#Unit",
                "traits": {
                    "smithy.api#enumValue": "Terabits/Second"
                }
            },
            "COUNT_PER_SECOND": {
                "target": "smithy.api#Unit",
                "traits": {
                    "smithy.api#enumValue": "Count/Second"
                }
            }
        }
    },
    "com.amazonaws.licensemanager#EntitlementUsage": {
        "type": "structure",
        "members": {
            "Name": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
```

```
                "smithy.api#documentation": "<p>Entitlement usage name.</p>",
                "smithy.api#required": {}
              }
            },
            "ConsumedValue": {
              "target": "com.amazonaws.licensemanager#String",

            "traits": {
                "smithy.api#documentation": "<p>Resource usage consumed.</p>",
                "smithy.api#required": {}
              }
            },
            "MaxCount": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Maximum entitlement usage count.</p>"
              }
            },
            "Unit": {
              "target": "com.amazonaws.licensemanager#EntitlementDataUnit",
              "traits": {
                "smithy.api#documentation": "<p>Entitlement usage unit.</p>",
                "smithy.api#required": {}
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>Usage associated with an entitlement resource.</p>"
          }
        },
        "com.amazonaws.licensemanager#EntitlementUsageList":
{
          "type": "list",
          "member": {
            "target": "com.amazonaws.licensemanager#EntitlementUsage"
          }
        },
        "com.amazonaws.licensemanager#ExtendLicenseConsumption": {
          "type": "operation",
          "input": {
            "target": "com.amazonaws.licensemanager#ExtendLicenseConsumptionRequest"
          },
          "output": {
            "target": "com.amazonaws.licensemanager#ExtendLicenseConsumptionResponse"
          },
          "errors": [
            {
              "target": "com.amazonaws.licensemanager#AccessDeniedException"
```

```
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
          "target": "com.amazonaws.licensemanager#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Extends the expiration date for license consumption.</p>"
      }
    },
    "com.amazonaws.licensemanager#ExtendLicenseConsumptionRequest": {
      "type": "structure",
      "members": {
        "LicenseConsumptionToken": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>License consumption token.</p>",
            "smithy.api#required": {}

    }
        },
        "DryRun": {
          "target": "com.amazonaws.licensemanager#Boolean",
          "traits": {
            "smithy.api#default": false,
            "smithy.api#documentation": "<p>Checks whether you have the required permissions for the action, without actually making the request. Provides an error response if you do not have the required permissions.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
```

```
    "com.amazonaws.licensemanager#ExtendLicenseConsumptionResponse": {
      "type": "structure",
      "members": {
        "LicenseConsumptionToken": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>License consumption token.</p>"
          }
        },

        "Expiration": {
          "target": "com.amazonaws.licensemanager#ISO8601DateTime",
          "traits": {
            "smithy.api#documentation": "<p>Date and time at which the license consumption expires.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanager#FailedDependencyException": {
      "type": "structure",
      "members": {
        "Message": {
          "target": "com.amazonaws.licensemanager#Message"
        },
        "ErrorCode": {
          "target": "com.amazonaws.licensemanager#String"
        }
      },
      "traits": {
        "aws.protocols#awsQueryError": {
          "code": "FailedDependency",
          "httpResponseCode": 424
        },
        "smithy.api#documentation":
"<p>A dependency required to run the API is missing.</p>",
        "smithy.api#error": "client",
        "smithy.api#httpError": 424
      }
    },
    "com.amazonaws.licensemanager#Filter": {
      "type": "structure",
      "members": {
        "Name": {
          "target": "com.amazonaws.licensemanager#FilterName",
          "traits": {
```

```
                "smithy.api#documentation": "<p>Name of the filter. Filter names are case-sensitive.</p>"
              }
            },
            "Values": {
              "target": "com.amazonaws.licensemanager#FilterValues",
              "traits": {
                "smithy.api#documentation": "<p>The value of the filter, which is case-sensitive. You can only specify one value for the filter.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>A filter name and value pair that is used to return more specific results from a\n          describe operation. Filters can be used to match a set of resources by specific criteria,\n          such as tags, attributes, or IDs.</p>"
          }
        },
        "com.amazonaws.licensemanager#FilterLimitExceededException": {
          "type": "structure",
          "members": {
            "Message": {
              "target": "com.amazonaws.licensemanager#Message"
            }
          },
          "traits": {
            "aws.protocols#awsQueryError": {
              "code": "FilterLimitExceeded",
              "httpResponseCode": 400
            },
            "smithy.api#documentation": "<p>The request uses too many filters or too many filter values.</p>",
            "smithy.api#error": "client",
            "smithy.api#httpError": 400
          }
        },
        "com.amazonaws.licensemanager#FilterList": {
          "type": "list",
          "member": {
            "target": "com.amazonaws.licensemanager#Filter"
          }
        },
        "com.amazonaws.licensemanager#FilterName": {
          "type": "string"
        },
        "com.amazonaws.licensemanager#FilterValue": {
          "type": "string"
        },
        "com.amazonaws.licensemanager#FilterValues": {
          "type": "list",
```

```
        "member": {
            "target": "com.amazonaws.licensemanager#FilterValue",
            "traits": {
                "smithy.api#xmlName": "item"
            }
        }
    },
    "com.amazonaws.licensemanager#Filters": {
        "type": "list",
        "member": {
            "target": "com.amazonaws.licensemanager#Filter",
            "traits": {
                "smithy.api#xmlName": "item"
            }
        }
    },
    "com.amazonaws.licensemanager#GetAccessToken": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#GetAccessTokenRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#GetAccessTokenResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Gets a temporary access token to use with
AssumeRoleWithWebIdentity. Access
 tokens\n          are valid for one hour.</p>"
        }
    },
    "com.amazonaws.licensemanager#GetAccessTokenRequest": {
```

```
        "type": "structure",
        "members": {
          "Token": {
            "target": "com.amazonaws.licensemanager#TokenString",
            "traits": {
              "smithy.api#documentation": "<p>Refresh token, encoded as a JWT token.</p>",
              "smithy.api#required": {}
            }
          },
          "TokenProperties": {
            "target": "com.amazonaws.licensemanager#MaxSize3StringList",
            "traits": {
              "smithy.api#documentation": "<p>Token properties to validate against those present in the JWT
token.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#GetAccessTokenResponse":
 {
        "type": "structure",
        "members": {
          "AccessToken": {
            "target": "com.amazonaws.licensemanager#TokenString",
            "traits": {
              "smithy.api#documentation": "<p>Temporary access token.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#GetGrant": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#GetGrantRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#GetGrantResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
```

```
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"

      },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
          "target": "com.amazonaws.licensemanager#ValidationException"
        }
    ],
    "traits": {
      "smithy.api#documentation": "<p>Gets detailed information about the specified grant.</p>"
    }
  },
  "com.amazonaws.licensemanager#GetGrantRequest": {
    "type": "structure",
    "members": {
      "GrantArn": {
        "target": "com.amazonaws.licensemanager#Arn",
         "traits": {
          "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the grant.</p>",
          "smithy.api#required": {}
        }
      },
      "Version": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>Grant version.</p>"
        }
      }
    },
    "traits": {
      "smithy.api#input": {}
    }
  },
  "com.amazonaws.licensemanager#GetGrantResponse": {
    "type": "structure",
    "members": {
```

```
        "Grant": {
            "target": "com.amazonaws.licensemanager#Grant",
            "traits": {
                "smithy.api#documentation": "<p>Grant details.</p>"
            }
        }
    },
    "traits": {

"smithy.api#output": {}
    }
},
"com.amazonaws.licensemanager#GetLicense": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanager#GetLicenseRequest"
    },
    "output": {
        "target": "com.amazonaws.licensemanager#GetLicenseResponse"
    },
    "errors": [
        {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
            "target": "com.amazonaws.licensemanager#ServerInternalException"

 },
        {
            "target": "com.amazonaws.licensemanager#ValidationException"
        }
    ],
    "traits": {
        "smithy.api#documentation": "<p>Gets detailed information about the specified license.</p>"
    }
},
"com.amazonaws.licensemanager#GetLicenseConfiguration": {
    "type": "operation",
    "input": {
```

```
            "target": "com.amazonaws.licensemanager#GetLicenseConfigurationRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#GetLicenseConfigurationResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
             },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Gets detailed information about the specified license
configuration.</p>"
        }
    },
    "com.amazonaws.licensemanager#GetLicenseConfigurationRequest": {
        "type": "structure",
        "members": {
            "LicenseConfigurationArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license
configuration.</p>",
                    "smithy.api#required": {}
                }
            }
        },
        "traits":
{
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#GetLicenseConfigurationResponse": {
        "type": "structure",
        "members": {
            "LicenseConfigurationId": {
```

```
    "target": "com.amazonaws.licensemanager#String",
    "traits": {
        "smithy.api#documentation": "<p>Unique ID for the license configuration.</p>"
    }
},
"LicenseConfigurationArn": {
    "target": "com.amazonaws.licensemanager#String",
    "traits": {
        "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license configuration.</p>"
    }
},
"Name": {
    "target": "com.amazonaws.licensemanager#String",
    "traits": {
        "smithy.api#documentation": "<p>Name of the license configuration.</p>"
     }
},
"Description": {
    "target": "com.amazonaws.licensemanager#String",
    "traits": {
        "smithy.api#documentation": "<p>Description of the license configuration.</p>"
    }
},
"LicenseCountingType": {
    "target": "com.amazonaws.licensemanager#LicenseCountingType",
    "traits": {
        "smithy.api#documentation": "<p>Dimension for which the licenses are counted.</p>"
    }
},
"LicenseRules": {
    "target": "com.amazonaws.licensemanager#StringList",
    "traits": {
        "smithy.api#documentation": "<p>License rules.</p>"
    }
},
"LicenseCount": {
    "target": "com.amazonaws.licensemanager#BoxLong",

   "traits": {
        "smithy.api#documentation": "<p>Number of available licenses.</p>"
    }
},
"LicenseCountHardLimit": {
    "target": "com.amazonaws.licensemanager#BoxBoolean",
    "traits": {
        "smithy.api#documentation": "<p>Sets the number of available licenses as a hard limit.</p>"
    }
},
```

```
    "ConsumedLicenses": {
      "target": "com.amazonaws.licensemanager#BoxLong",
      "traits": {
        "smithy.api#documentation": "<p>Number of licenses assigned to resources.</p>"
      }
    },
    "Status": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {
        "smithy.api#documentation": "<p>License configuration status.</p>"
      }

  },
    "OwnerAccountId": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {
        "smithy.api#documentation": "<p>Account ID of the owner of the license configuration.</p>"
      }
    },
    "ConsumedLicenseSummaryList": {
      "target": "com.amazonaws.licensemanager#ConsumedLicenseSummaryList",
      "traits": {
        "smithy.api#documentation": "<p>Summaries of the licenses consumed by resources.</p>"
      }
    },
    "ManagedResourceSummaryList": {
      "target": "com.amazonaws.licensemanager#ManagedResourceSummaryList",
      "traits": {
        "smithy.api#documentation": "<p>Summaries of the managed resources.</p>"
      }
    },
    "Tags": {
      "target": "com.amazonaws.licensemanager#TagList",
       "traits": {
        "smithy.api#documentation": "<p>Tags for the license configuration.</p>"
      }
    },
    "ProductInformationList": {
      "target": "com.amazonaws.licensemanager#ProductInformationList",
      "traits": {
        "smithy.api#documentation": "<p>Product information.</p>"
      }
    },
    "AutomatedDiscoveryInformation": {
      "target": "com.amazonaws.licensemanager#AutomatedDiscoveryInformation",
      "traits": {
        "smithy.api#documentation": "<p>Automated discovery information.</p>"
      }
```

```
            },
            "DisassociateWhenNotFound": {
               "target": "com.amazonaws.licensemanager#BoxBoolean",
               "traits": {
                  "smithy.api#documentation": "<p>When
true, disassociates a resource when software is uninstalled.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#output": {}
         }
      },
      "com.amazonaws.licensemanager#GetLicenseConversionTask": {
         "type": "operation",
         "input": {
            "target": "com.amazonaws.licensemanager#GetLicenseConversionTaskRequest"
         },
         "output": {
            "target": "com.amazonaws.licensemanager#GetLicenseConversionTaskResponse"
         },
         "errors": [
            {
               "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
               "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
               "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {

 "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
               "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Gets information about the specified license type conversion task.</p>"
         }
      },
      "com.amazonaws.licensemanager#GetLicenseConversionTaskRequest": {
         "type": "structure",
         "members": {
            "LicenseConversionTaskId": {
               "target": "com.amazonaws.licensemanager#LicenseConversionTaskId",
```

```
            "traits": {
                "smithy.api#documentation": "<p>ID of the license type conversion task to retrieve information
on.</p>",
                "smithy.api#required": {}
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#GetLicenseConversionTaskResponse": {
        "type": "structure",
        "members": {
          "LicenseConversionTaskId": {
            "target": "com.amazonaws.licensemanager#LicenseConversionTaskId",
            "traits": {
              "smithy.api#documentation": "<p>ID of the license type conversion task.</p>"
            }
          },
          "ResourceArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Names (ARN) of the resources the license
conversion task is associated with.</p>"
            }
          },
          "SourceLicenseContext": {
            "target": "com.amazonaws.licensemanager#LicenseConversionContext",
            "traits": {
              "smithy.api#documentation": "<p>Information
 about the license type converted from.</p>"
            }
          },
          "DestinationLicenseContext": {
            "target": "com.amazonaws.licensemanager#LicenseConversionContext",
            "traits": {
              "smithy.api#documentation": "<p>Information about the license type converted to.</p>"
            }
          },
          "StatusMessage": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>The status message for the conversion task.</p>"
            }
          },
          "Status": {
            "target": "com.amazonaws.licensemanager#LicenseConversionTaskStatus",
```

```
            "traits": {
                "smithy.api#documentation": "<p>Status of the license type conversion task.</p>"
            }
        },

  "StartTime": {
            "target": "com.amazonaws.licensemanager#DateTime",
            "traits": {
                "smithy.api#documentation": "<p>Time at which the license type conversion task was started .</p>"
            }
        },
        "LicenseConversionTime": {
            "target": "com.amazonaws.licensemanager#DateTime",
            "traits": {
                "smithy.api#documentation": "<p>Amount of time to complete the license type conversion.</p>"
            }
        },
        "EndTime": {
            "target": "com.amazonaws.licensemanager#DateTime",
            "traits": {
                "smithy.api#documentation": "<p>Time at which the license type conversion task was
completed.</p>"
            }
        }
      },
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanager#GetLicenseManagerReportGenerator":
{
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#GetLicenseManagerReportGeneratorRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#GetLicenseManagerReportGeneratorResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
```

```
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"

          },
            {
                "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Gets information about the specified report generator.</p>"
          }
        },
        "com.amazonaws.licensemanager#GetLicenseManagerReportGeneratorRequest": {
          "type": "structure",
          "members": {
            "LicenseManagerReportGeneratorArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the report generator.</p>",
                    "smithy.api#required":
{}
                }
            }
          },
          "traits": {
            "smithy.api#input": {}
          }
        },
        "com.amazonaws.licensemanager#GetLicenseManagerReportGeneratorResponse": {
          "type": "structure",
          "members": {
            "ReportGenerator": {
                "target": "com.amazonaws.licensemanager#ReportGenerator",
                "traits": {
                    "smithy.api#documentation": "<p>A report generator that creates periodic reports about your license
configurations.</p>"
                }
            }
          },
```

```
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#GetLicenseRequest": {
        "type": "structure",
        "members": {
            "LicenseArn": {
                "target": "com.amazonaws.licensemanager#Arn",
                "traits": {

"smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>",
                    "smithy.api#required": {}
                }
            },
            "Version": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>License version.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#GetLicenseResponse": {
        "type": "structure",
        "members": {
            "License": {
                "target": "com.amazonaws.licensemanager#License",
                "traits": {
                    "smithy.api#documentation": "<p>License details.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#output": {}
        }
    },

  "com.amazonaws.licensemanager#GetLicenseUsage": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#GetLicenseUsageRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#GetLicenseUsageResponse"
```

```
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          },
          {

  "target": "com.amazonaws.licensemanager#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Gets detailed information about the usage of the specified license.</p>"
        }
      },
      "com.amazonaws.licensemanager#GetLicenseUsageRequest": {
        "type": "structure",
        "members": {
          "LicenseArn": {
            "target": "com.amazonaws.licensemanager#Arn",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>",
              "smithy.api#required": {}
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#GetLicenseUsageResponse": {
        "type": "structure",
        "members": {
          "LicenseUsage": {
            "target":
"com.amazonaws.licensemanager#LicenseUsage",
            "traits": {
```

```
            "smithy.api#documentation": "<p>License usage details.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanager#GetServiceSettings": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#GetServiceSettingsRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#GetServiceSettingsResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Gets the License Manager settings for the current Region.</p>"
      }
    },
    "com.amazonaws.licensemanager#GetServiceSettingsRequest": {
      "type": "structure",
      "members": {},
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#GetServiceSettingsResponse": {
      "type": "structure",
      "members": {
        "S3BucketArn": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Regional S3 bucket path for storing reports, license trail event data,
```

```
discovery data,\n        and so on.</p>"

  }
          },
          "SnsTopicArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>SNS topic configured to receive notifications from License
Manager.</p>"
            }
          },
          "OrganizationConfiguration": {
            "target": "com.amazonaws.licensemanager#OrganizationConfiguration",
            "traits": {
              "smithy.api#documentation": "<p>Indicates whether Organizations is integrated with License
Manager for\n        cross-account discovery.</p>"
            }
          },
          "EnableCrossAccountsDiscovery": {
            "target": "com.amazonaws.licensemanager#BoxBoolean",
            "traits": {
              "smithy.api#documentation": "<p>Indicates whether cross-account discovery is enabled.</p>"
            }

        },
          "LicenseManagerResourceShareArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the resource share. The License
Manager management account \n        provides member accounts with access to this share.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#Grant": {
        "type": "structure",
        "members": {
          "GrantArn": {
            "target": "com.amazonaws.licensemanager#Arn",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the grant.</p>",
              "smithy.api#required": {}
            }
          },
          "GrantName": {
```

```
 "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Grant name.</p>",
                    "smithy.api#required": {}
                }
            },
            "ParentArn": {
                "target": "com.amazonaws.licensemanager#Arn",
                "traits": {
                    "smithy.api#documentation": "<p>Parent ARN.</p>",
                    "smithy.api#required": {}
                }
            },
            "LicenseArn": {
                "target": "com.amazonaws.licensemanager#Arn",
                "traits": {
                    "smithy.api#documentation": "<p>License ARN.</p>",
                    "smithy.api#required": {}
                }
            },
            "GranteePrincipalArn": {
                "target": "com.amazonaws.licensemanager#Arn",
                "traits": {

"smithy.api#documentation": "<p>The grantee principal ARN.</p>",
                    "smithy.api#required": {}
                }
            },
            "HomeRegion": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Home Region of the grant.</p>",
                    "smithy.api#required": {}
                }
            },
            "GrantStatus": {
                "target": "com.amazonaws.licensemanager#GrantStatus",
                "traits": {
                    "smithy.api#documentation": "<p>Grant status.</p>",
                    "smithy.api#required": {}
                }
            },
            "StatusReason": {
                "target": "com.amazonaws.licensemanager#StatusReasonMessage",
                "traits": {
                    "smithy.api#documentation": "<p>Grant status reason.</p>"
```

```
            }
          },
          "Version": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Grant version.</p>",
              "smithy.api#required": {}
            }
          },
          "GrantedOperations": {
            "target": "com.amazonaws.licensemanager#AllowedOperationList",
            "traits": {
              "smithy.api#documentation": "<p>Granted operations.</p>",
              "smithy.api#required": {}
            }
          },
          "Options": {
            "target": "com.amazonaws.licensemanager#Options",
            "traits": {
              "smithy.api#documentation": "<p>The options specified for the grant.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation":
"<p>Describes a grant.</p>"
        }
      },
      "com.amazonaws.licensemanager#GrantList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#Grant"
        }
      },
      "com.amazonaws.licensemanager#GrantStatus": {
        "type": "enum",
        "members": {
          "PENDING_WORKFLOW": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "PENDING_WORKFLOW"
            }
          },
          "PENDING_ACCEPT": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "PENDING_ACCEPT"
            }
```

```
        },
        "REJECTED": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "REJECTED"

        }
        },
        "ACTIVE": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "ACTIVE"
          }
        },
        "FAILED_WORKFLOW": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "FAILED_WORKFLOW"
          }
        },
        "DELETED": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "DELETED"
          }
        },
        "PENDING_DELETE": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "PENDING_DELETE"
          }
        },
        "DISABLED": {
          "target": "smithy.api#Unit",
          "traits":
{
            "smithy.api#enumValue": "DISABLED"
          }
        },
        "WORKFLOW_COMPLETED": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "WORKFLOW_COMPLETED"
          }
        }
      }
    },
    "com.amazonaws.licensemanager#GrantedLicense": {
```

```
        "type": "structure",
        "members": {
          "LicenseArn": {
            "target": "com.amazonaws.licensemanager#Arn",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>"
            }
          },
          "LicenseName": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>License name.</p>"
            }

},
          "ProductName": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Product name.</p>"
            }
          },
          "ProductSKU": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Product SKU.</p>"
            }
          },
          "Issuer": {
            "target": "com.amazonaws.licensemanager#IssuerDetails",
            "traits": {
              "smithy.api#documentation": "<p>Granted license issuer.</p>"
            }
          },
          "HomeRegion": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Home Region of the granted license.</p>"

           }
          },
          "Status": {
            "target": "com.amazonaws.licensemanager#LicenseStatus",
            "traits": {
              "smithy.api#documentation": "<p>Granted license status.</p>"
            }
          },
          "Validity": {
            "target": "com.amazonaws.licensemanager#DatetimeRange",
```

```
            "traits": {
                "smithy.api#documentation": "<p>Date and time range during which the granted license is valid, in
ISO8601-UTC format.</p>"
            }
        },
        "Beneficiary": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Granted license beneficiary.</p>"
            }
        },
        "Entitlements": {
            "target": "com.amazonaws.licensemanager#EntitlementList",
             "traits": {
                "smithy.api#documentation": "<p>License entitlements.</p>"
            }
        },
        "ConsumptionConfiguration": {
            "target": "com.amazonaws.licensemanager#ConsumptionConfiguration",
            "traits": {
                "smithy.api#documentation": "<p>Configuration for consumption of the license.</p>"
            }
        },
        "LicenseMetadata": {
            "target": "com.amazonaws.licensemanager#MetadataList",
            "traits": {
                "smithy.api#documentation": "<p>Granted license metadata.</p>"
            }
        },
        "CreateTime": {
            "target": "com.amazonaws.licensemanager#ISO8601DateTime",
            "traits": {
                "smithy.api#documentation": "<p>Creation time of the granted license.</p>"

  }
        },
        "Version": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Version of the granted license.</p>"
            }
        },
        "ReceivedMetadata": {
            "target": "com.amazonaws.licensemanager#ReceivedMetadata",
            "traits": {
                "smithy.api#documentation": "<p>Granted license received metadata.</p>"
            }
        }
```

```
        },
        "traits": {
            "smithy.api#documentation": "<p>Describes a license that is granted to a grantee.</p>"
        }
    },
    "com.amazonaws.licensemanager#GrantedLicenseList": {
        "type": "list",
        "member": {
            "target": "com.amazonaws.licensemanager#GrantedLicense"
        }
    },
    "com.amazonaws.licensemanager#ISO8601DateTime":
{
        "type": "string",
        "traits": {
            "smithy.api#length": {
                "min": 0,
                "max": 50
            },
            "smithy.api#pattern": "^(-?(?:[1-9][0-9]*)?[0-9]{4})-(1[0-2]|0[1-9])-(3[0-1]|0[1-9]|[1-2][0-9])T(2[0-3]|[0-
1][0-9]):([0-5][0-9]):([0-5][0-9])(\\.[0-9]+)?(Z|[+-](?:2[ 0-3]|[0-1][0-9]):[0-5][0-9])+$"
        }
    },
    "com.amazonaws.licensemanager#Integer": {
        "type": "integer"
    },
    "com.amazonaws.licensemanager#InvalidParameterValueException": {
        "type": "structure",
        "members": {
            "Message": {
                "target": "com.amazonaws.licensemanager#Message"
            }
        },
        "traits": {
            "aws.protocols#awsQueryError": {
                "code": "InvalidParameterValueProvided",
                "httpResponseCode": 400
            },
            "smithy.api#documentation":
"<p>One or more parameter values are not valid.</p>",
            "smithy.api#error": "client",
            "smithy.api#httpError": 400
        }
    },
    "com.amazonaws.licensemanager#InvalidResourceStateException": {
        "type": "structure",
        "members": {
            "Message": {
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```
            "target": "com.amazonaws.licensemanager#Message"
          }
        },
        "traits": {
          "aws.protocols#awsQueryError": {
            "code": "InvalidResourceState",
            "httpResponseCode": 400
          },
          "smithy.api#documentation": "<p>License Manager cannot allocate a license to a resource because of its
state. </p>\n         <p>For example, you cannot allocate a license to an instance in the process of shutting\n
down.</p>",
          "smithy.api#error": "client",
          "smithy.api#httpError": 400
        }
      },

    "com.amazonaws.licensemanager#InventoryFilter": {
        "type": "structure",
        "members": {
          "Name": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Name of the filter.</p>",
              "smithy.api#required": {}
            }
          },
          "Condition": {
            "target": "com.amazonaws.licensemanager#InventoryFilterCondition",
            "traits": {
              "smithy.api#documentation": "<p>Condition of the filter.</p>",
              "smithy.api#required": {}
            }
          },
          "Value": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Value of the filter.</p>"
            }
          }

    },
        "traits": {
          "smithy.api#documentation": "<p>An inventory filter.</p>"
        }
      },
     "com.amazonaws.licensemanager#InventoryFilterCondition": {
        "type": "enum",
        "members": {
```

```
            "EQUALS": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "EQUALS"
              }
            },
            "NOT_EQUALS": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "NOT_EQUALS"
              }
            },
            "BEGINS_WITH": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "BEGINS_WITH"
              }
            },
            "CONTAINS": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "CONTAINS"
              }
            }
          }
        },
        "com.amazonaws.licensemanager#InventoryFilterList": {
          "type": "list",
          "member": {
            "target": "com.amazonaws.licensemanager#InventoryFilter"
          }
        },
        "com.amazonaws.licensemanager#Issuer": {
          "type": "structure",
          "members": {
            "Name": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Issuer name.</p>",
                "smithy.api#required": {}
              }
            },
            "SignKey": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Asymmetric KMS key from Key Management Service. The KMS
key must have a key usage
```

```
of sign and verify, \n         and support the RSASSA-PSS SHA-256 signing algorithm.</p>"
                }
              }
            },
            "traits": {
              "smithy.api#documentation": "<p>Details about the issuer of a license.</p>"
            }
          },
          "com.amazonaws.licensemanager#IssuerDetails": {
            "type": "structure",
            "members": {
              "Name": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                  "smithy.api#documentation": "<p>Issuer name.</p>"
                }
              },
              "SignKey": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                  "smithy.api#documentation": "<p>Asymmetric KMS key from Key Management Service. The KMS key must have a key usage of sign and verify, \n         and support the RSASSA-PSS SHA-256 signing algorithm.</p>"
                }
              },
              "KeyFingerprint": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                  "smithy.api#documentation": "<p>Issuer key fingerprint.</p>"
                }
              }
            },
            "traits": {
              "smithy.api#documentation": "<p>Details associated with the issuer of a license.</p>"
            }
          },
          "com.amazonaws.licensemanager#License": {
            "type": "structure",
            "members": {
              "LicenseArn": {
                "target": "com.amazonaws.licensemanager#Arn",
                "traits": {
                  "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>"
                }
              },
              "LicenseName": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
```

```
"smithy.api#documentation": "<p>License name.</p>"
        }
      },
      "ProductName": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>Product name.</p>"
        }
      },
      "ProductSKU": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>Product SKU.</p>"
        }
      },
      "Issuer": {
        "target": "com.amazonaws.licensemanager#IssuerDetails",
        "traits": {
          "smithy.api#documentation": "<p>License issuer.</p>"
        }
      },
      "HomeRegion": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {

      "smithy.api#documentation": "<p>Home Region of the license.</p>"
        }
      },
      "Status": {
        "target": "com.amazonaws.licensemanager#LicenseStatus",
        "traits": {
          "smithy.api#documentation": "<p>License status.</p>"
        }
      },
      "Validity": {
        "target": "com.amazonaws.licensemanager#DatetimeRange",
        "traits": {
          "smithy.api#documentation": "<p>Date and time range during which the license is valid, in ISO8601-
UTC format.</p>"
        }
      },
      "Beneficiary": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>License beneficiary.</p>"
        }
      },
```

```
            "Entitlements": {

  "target": "com.amazonaws.licensemanager#EntitlementList",
              "traits": {
                "smithy.api#documentation": "<p>License entitlements.</p>"
              }
            },
            "ConsumptionConfiguration": {
              "target": "com.amazonaws.licensemanager#ConsumptionConfiguration",
              "traits": {
                "smithy.api#documentation": "<p>Configuration for consumption of the license.</p>"
              }
            },
            "LicenseMetadata": {
              "target": "com.amazonaws.licensemanager#MetadataList",
              "traits": {
                "smithy.api#documentation": "<p>License metadata.</p>"
              }
            },
            "CreateTime": {
              "target": "com.amazonaws.licensemanager#ISO8601DateTime",
              "traits": {
                "smithy.api#documentation": "<p>License
creation time.</p>"
              }
            },
            "Version": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>License version.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>Software license that is managed in License Manager.</p>"
          }
        },
        "com.amazonaws.licensemanager#LicenseConfiguration": {
          "type": "structure",
          "members": {
            "LicenseConfigurationId": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Unique ID of the license configuration.</p>"
              }
            },
            "LicenseConfigurationArn": {
              "target": "com.amazonaws.licensemanager#String",
```

```
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license configuration.</p>"
            }
          },
          "Name": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Name of the license configuration.</p>"
            }
          },
          "Description": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Description of the license configuration.</p>"
            }
          },
          "LicenseCountingType": {
            "target": "com.amazonaws.licensemanager#LicenseCountingType",
            "traits": {
              "smithy.api#documentation": "<p>Dimension to use to track the license inventory.</p>"
            }
          },
          "LicenseRules": {
            "target": "com.amazonaws.licensemanager#StringList",
            "traits": {
              "smithy.api#documentation": "<p>License rules.</p>"
            }
          },
          "LicenseCount": {
            "target": "com.amazonaws.licensemanager#BoxLong",
            "traits": {
              "smithy.api#documentation": "<p>Number of licenses managed by the license configuration.</p>"
            }
          },
          "LicenseCountHardLimit": {
            "target": "com.amazonaws.licensemanager#BoxBoolean",
            "traits": {
              "smithy.api#documentation": "<p>Number of available licenses as a hard limit.</p>"
            }
          },
          "DisassociateWhenNotFound": {
            "target": "com.amazonaws.licensemanager#BoxBoolean",
            "traits": {
              "smithy.api#documentation": "<p>When true, disassociates a resource when software is
uninstalled.</p>"
            }
          },
          "ConsumedLicenses": {
```

```
            "target": "com.amazonaws.licensemanager#BoxLong",
            "traits": {
              "smithy.api#documentation": "<p>Number of licenses consumed. </p>"
            }
          },
          "Status": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Status of the license configuration.</p>"
            }
          },
          "OwnerAccountId": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Account ID of the license configuration's owner.</p>"

         }
          },
          "ConsumedLicenseSummaryList": {
            "target": "com.amazonaws.licensemanager#ConsumedLicenseSummaryList",
            "traits": {
              "smithy.api#documentation": "<p>Summaries for licenses consumed by various resources.</p>"
            }
          },
          "ManagedResourceSummaryList": {
            "target": "com.amazonaws.licensemanager#ManagedResourceSummaryList",
            "traits": {
              "smithy.api#documentation": "<p>Summaries for managed resources.</p>"
            }
          },
          "ProductInformationList": {
            "target": "com.amazonaws.licensemanager#ProductInformationList",
            "traits": {
              "smithy.api#documentation": "<p>Product information.</p>"
            }
          },
          "AutomatedDiscoveryInformation": {

            "target": "com.amazonaws.licensemanager#AutomatedDiscoveryInformation",
            "traits": {
              "smithy.api#documentation": "<p>Automated discovery information.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>A license configuration is an abstraction of a customer license agreement that can be\n            consumed and enforced by License Manager. Components include specifications for the license\n            type (licensing by instance, socket, CPU, or vCPU), allowed tenancy (shared tenancy, \n
```

Dedicated Instance, Dedicated Host, or all of these), host affinity (how long a VM\n must be associated with a host), and the number of licenses purchased and used. "
        }
      },
      "com.amazonaws.licensemanager#LicenseConfigurationAssociation": {
        "type": "structure",
        "members": {
          "ResourceArn":
{
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": " Amazon Resource Name (ARN) of the resource. "
            }
          },
          "ResourceType": {
            "target": "com.amazonaws.licensemanager#ResourceType",
            "traits": {
              "smithy.api#documentation": " Type of server resource. "
            }
          },
          "ResourceOwnerId": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": " ID of the Amazon Web Services account that owns the resource consuming licenses. "
            }
          },
          "AssociationTime": {
            "target": "com.amazonaws.licensemanager#DateTime",
            "traits": {

    "smithy.api#documentation": " Time when the license configuration was associated with the resource. "
            }
          },
          "AmiAssociationScope": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": " Scope of AMI associations. The possible value is <code>cross-account</code>. "
            }
          }
        },
        "traits": {
          "smithy.api#documentation": " Describes an association with a license configuration. "
        }
      },
      "com.amazonaws.licensemanager#LicenseConfigurationAssociations": {
        "type": "list",

```
        "member": {
            "target": "com.amazonaws.licensemanager#LicenseConfigurationAssociation"
        }
    },
    "com.amazonaws.licensemanager#LicenseConfigurationStatus": {
        "type": "enum",
        "members":
{
            "AVAILABLE": {
                "target": "smithy.api#Unit",
                "traits": {
                    "smithy.api#enumValue": "AVAILABLE"
                }
            },
            "DISABLED": {
                "target": "smithy.api#Unit",
                "traits": {
                    "smithy.api#enumValue": "DISABLED"
                }
            }
        }
    },
    "com.amazonaws.licensemanager#LicenseConfigurationUsage": {
        "type": "structure",
        "members": {
            "ResourceArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the resource.</p>"
                }
            },
            "ResourceType": {
                "target": "com.amazonaws.licensemanager#ResourceType",
                "traits":
{
                    "smithy.api#documentation": "<p>Type of resource.</p>"
                }
            },
            "ResourceStatus": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Status of the resource.</p>"
                }
            },
            "ResourceOwnerId": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>ID of the account that owns the resource.</p>"
```

```
            }
          },
          "AssociationTime": {
            "target": "com.amazonaws.licensemanager#DateTime",
            "traits": {
              "smithy.api#documentation": "<p>Time when the license configuration was initially associated with the resource.</p>"
            }
          },

    "ConsumedLicenses": {
            "target": "com.amazonaws.licensemanager#BoxLong",
            "traits": {
              "smithy.api#documentation": "<p>Number of licenses consumed by the resource.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Details about the usage of a resource associated with a license configuration.</p>"
        }
      },
      "com.amazonaws.licensemanager#LicenseConfigurationUsageList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#LicenseConfigurationUsage"
        }
      },
      "com.amazonaws.licensemanager#LicenseConfigurations": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#LicenseConfiguration"
        }
      },
      "com.amazonaws.licensemanager#LicenseConversionContext": {

  "type": "structure",
        "members": {
          "UsageOperation": {
            "target": "com.amazonaws.licensemanager#UsageOperation",
            "traits": {
              "smithy.api#documentation": "<p>The Usage operation value that corresponds to the license type you are converting your resource from.  For more information about which platforms correspond to which usage operation values see <a href=\"https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/billing-info-fields.html#billing-info\">Sample data: usage operation by platform\n      </a>\n        </p>"
            }
          }
        },
```

```
        "traits": {
            "smithy.api#documentation": "<p>Information about a license type conversion task.</p>"
        }
    },
    "com.amazonaws.licensemanager#LicenseConversionTask": {
        "type": "structure",
        "members": {
            "LicenseConversionTaskId": {

     "target": "com.amazonaws.licensemanager#LicenseConversionTaskId",
                "traits": {
                    "smithy.api#documentation": "<p>The ID of the license type conversion task.</p>"
                }
            },
            "ResourceArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the resource associated
with the license type\n        conversion task.</p>"
                }
            },
            "SourceLicenseContext": {
                "target": "com.amazonaws.licensemanager#LicenseConversionContext",
                "traits": {
                    "smithy.api#documentation": "<p>Information about the license type this conversion task converted
from.</p>"
                }
            },
            "DestinationLicenseContext": {
                "target":
 "com.amazonaws.licensemanager#LicenseConversionContext",
                "traits": {
                    "smithy.api#documentation": "<p>Information about the license type this conversion task converted
to.</p>"
                }
            },
            "Status": {
                "target": "com.amazonaws.licensemanager#LicenseConversionTaskStatus",
                "traits": {
                    "smithy.api#documentation": "<p>The status of the conversion task.</p>"
                }
            },
            "StatusMessage": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>The status message for the conversion task.</p>"
                }
            },
```

```
            "StartTime": {
               "target": "com.amazonaws.licensemanager#DateTime",
               "traits": {
                  "smithy.api#documentation":
 "<p>The time the conversion task was started at.</p>"
               }
            },
            "LicenseConversionTime": {
               "target": "com.amazonaws.licensemanager#DateTime",
               "traits": {
                  "smithy.api#documentation": "<p>The time the usage operation value of the resource was
changed.</p>"
               }
            },
            "EndTime": {
               "target": "com.amazonaws.licensemanager#DateTime",
               "traits": {
                  "smithy.api#documentation": "<p>The time the conversion task was completed.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#documentation": "<p>Information about a license type conversion task.</p>"
         }
      },
      "com.amazonaws.licensemanager#LicenseConversionTaskId": {
         "type": "string",
         "traits": {

          "smithy.api#length": {
               "min": 0,
               "max": 50
            },
            "smithy.api#pattern": "^lct-[a-zA-Z0-9]*$"
         }
      },
      "com.amazonaws.licensemanager#LicenseConversionTaskStatus": {
         "type": "enum",
         "members": {
            "IN_PROGRESS": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "IN_PROGRESS"
               }
            },
            "SUCCEEDED": {
               "target": "smithy.api#Unit",
               "traits": {
```

```
                "smithy.api#enumValue": "SUCCEEDED"
              }
            },
            "FAILED": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "FAILED"
              }
            }
          }
        },
        "com.amazonaws.licensemanager#LicenseConversionTasks":
{
          "type": "list",
          "member": {
            "target": "com.amazonaws.licensemanager#LicenseConversionTask"
          }
        },
        "com.amazonaws.licensemanager#LicenseCountingType": {
          "type": "enum",
          "members": {
            "VCPU": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "vCPU"
              }
            },
            "INSTANCE": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "Instance"
              }
            },
            "CORE": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "Core"
              }
            },
            "SOCKET": {
              "target": "smithy.api#Unit",
               "traits": {
                "smithy.api#enumValue": "Socket"
              }
            }
          }
        },
        "com.amazonaws.licensemanager#LicenseDeletionStatus": {
```

```
    "type": "enum",
    "members": {
      "PENDING_DELETE": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "PENDING_DELETE"
        }
      },
      "DELETED": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "DELETED"
        }
      }
    }
  },
  "com.amazonaws.licensemanager#LicenseList": {
    "type": "list",
    "member": {
      "target": "com.amazonaws.licensemanager#License"
    }
  },
  "com.amazonaws.licensemanager#LicenseOperationFailure": {

    "type": "structure",
    "members": {
      "ResourceArn": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the resource.</p>"
        }
      },
      "ResourceType": {
        "target": "com.amazonaws.licensemanager#ResourceType",
        "traits": {
          "smithy.api#documentation": "<p>Resource type.</p>"
        }
      },
      "ErrorMessage": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>Error message.</p>"
        }
      },
      "FailureTime": {
        "target": "com.amazonaws.licensemanager#DateTime",
        "traits": {
```

```
      "smithy.api#documentation": "<p>Failure time.</p>"
            }
          },
          "OperationName": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Name of the operation.</p>"
            }
          },
          "ResourceOwnerId": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>ID of the Amazon Web Services account that owns the
resource.</p>"
            }
          },
          "OperationRequestedBy": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>The requester is \"License Manager Automated Discovery\".</p>"
            }
          },
          "MetadataList": {

            "target": "com.amazonaws.licensemanager#MetadataList",
            "traits": {
              "smithy.api#documentation": "<p>Reserved.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Describes the failure of a license operation.</p>"
        }
      },
      "com.amazonaws.licensemanager#LicenseOperationFailureList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#LicenseOperationFailure"
        }
      },
      "com.amazonaws.licensemanager#LicenseSpecification": {
        "type": "structure",
        "members": {
          "LicenseConfigurationArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license
configuration.</p>",
```

```
            "smithy.api#required": {}
            }
          },
          "AmiAssociationScope": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Scope of AMI associations. The possible value is <code>cross-account</code>.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Details for associating a license configuration with a resource.</p>"
        }
      },
      "com.amazonaws.licensemanager#LicenseSpecifications": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#LicenseSpecification"
        }
      },
      "com.amazonaws.licensemanager#LicenseStatus": {
        "type": "enum",
        "members": {
          "AVAILABLE": {
            "target": "smithy.api#Unit",

          "traits": {
              "smithy.api#enumValue": "AVAILABLE"
            }
          },
          "PENDING_AVAILABLE": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "PENDING_AVAILABLE"
            }
          },
          "DEACTIVATED": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "DEACTIVATED"
            }
          },
          "SUSPENDED": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "SUSPENDED"
```

```
            }
        },
        "EXPIRED": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "EXPIRED"
            }
        },

     "PENDING_DELETE": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "PENDING_DELETE"
            }
        },
        "DELETED": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "DELETED"
            }
        }
    }
},
"com.amazonaws.licensemanager#LicenseUsage": {
    "type": "structure",
    "members": {
        "EntitlementUsages": {
            "target": "com.amazonaws.licensemanager#EntitlementUsageList",
            "traits": {
                "smithy.api#documentation": "<p>License entitlement usages.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#documentation": "<p>Describes the entitlement usage associated with a license.</p>"

    }
},
"com.amazonaws.licensemanager#LicenseUsageException": {
    "type": "structure",
    "members": {
        "Message": {
            "target": "com.amazonaws.licensemanager#Message"
        }
    },
    "traits": {
        "aws.protocols#awsQueryError": {
            "code": "LicenseUsageFailure",
```

```
            "httpResponseCode": 412
          },
          "smithy.api#documentation": "<p>You do not have enough licenses available to support a new resource
launch.</p>",
          "smithy.api#error": "client",
          "smithy.api#httpError": 412
        }
      },
      "com.amazonaws.licensemanager#ListAssociationsForLicenseConfiguration": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#ListAssociationsForLicenseConfigurationRequest"
        },
        "output": {

     "target": "com.amazonaws.licensemanager#ListAssociationsForLicenseConfigurationResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#FilterLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Lists the resource associations for the
 specified license configuration.</p>\n          <p>Resource associations need not consume licenses from a license
configuration. \n          For example, an AMI or a stopped instance might not consume a license (depending on \n
the license rules).</p>"
        }
      },
      "com.amazonaws.licensemanager#ListAssociationsForLicenseConfigurationRequest": {
        "type": "structure",
        "members": {
          "LicenseConfigurationArn": {
```

```
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of a license configuration.</p>",
              "smithy.api#required": {}
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanager#BoxInteger",
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results
to return in a single call.</p>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#ListAssociationsForLicenseConfigurationResponse": {
        "type": "structure",
        "members": {
          "LicenseConfigurationAssociations": {
            "target": "com.amazonaws.licensemanager#LicenseConfigurationAssociations",
            "traits": {
              "smithy.api#documentation": "<p>Information about the associations for the license
configuration.</p>"
            }
          },
          "NextToken": {

 "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#ListDistributedGrants": {
        "type": "operation",
```

```
      "input": {
        "target": "com.amazonaws.licensemanager#ListDistributedGrantsRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#ListDistributedGrantsResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
         },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
          "target": "com.amazonaws.licensemanager#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Lists the grants distributed for the specified license.</p>"
      }
    },
    "com.amazonaws.licensemanager#ListDistributedGrantsRequest": {
      "type": "structure",
      "members": {
        "GrantArns": {
          "target": "com.amazonaws.licensemanager#ArnList",
          "traits": {

        "smithy.api#documentation": "<p>Amazon Resource Names (ARNs) of the grants.</p>"
          }
        },
        "Filters": {
          "target": "com.amazonaws.licensemanager#FilterList",
          "traits": {
            "smithy.api#documentation": "<p>Filters to scope the results. The following filters are
supported:</p>\n        <ul>\n          <li>\n            <p>\n              <code>LicenseArn</code>\n            </p>\n
```

```
</li>\n <li>\n <p>\n <code>GrantStatus</code>\n </p>\n </li>\n
<li>\n <p>\n <code>GranteePrincipalARN</code>\n </p>\n </li>\n
<li>\n <p>\n <code>ProductSKU</code>\n </p>\n </li>\n <li>\n
<p>\n <code>LicenseIssuerName</code>\n
</p>\n </li>\n </ul>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanager#MaxSize100",
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#ListDistributedGrantsResponse": {
        "type": "structure",
        "members": {
          "Grants": {
            "target": "com.amazonaws.licensemanager#GrantList",

      "traits": {
              "smithy.api#documentation": "<p>Distributed grant details.</p>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#ListFailuresForLicenseConfigurationOperations": {
        "type": "operation",
        "input": {
```

```
            "target": "com.amazonaws.licensemanager#ListFailuresForLicenseConfigurationOperationsRequest"
          },
          "output": {
            "target": "com.amazonaws.licensemanager#ListFailuresForLicenseConfigurationOperationsResponse"
          },
          "errors": [
            {

"target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
              "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
              "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
              "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
              "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Lists the license configuration operations that failed.</p>"
          }
        },
        "com.amazonaws.licensemanager#ListFailuresForLicenseConfigurationOperationsRequest": {
          "type": "structure",
          "members": {
            "LicenseConfigurationArn": {
              "target": "com.amazonaws.licensemanager#String",
               "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name of the license configuration.</p>",
                "smithy.api#required": {}
              }
            },
            "MaxResults": {
              "target": "com.amazonaws.licensemanager#BoxInteger",
              "traits": {
                "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
              }
            },
            "NextToken": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
              }
```

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            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#ListFailuresForLicenseConfigurationOperationsResponse":
{
        "type": "structure",
        "members": {
            "LicenseOperationFailureList": {
                "target": "com.amazonaws.licensemanager#LicenseOperationFailureList",
                "traits": {
                    "smithy.api#documentation": "<p>License configuration operations that failed.</p>"
                }
            },
            "NextToken": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Token for the next set of results.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#ListLicenseConfigurations": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#ListLicenseConfigurationsRequest"
        },

   "output": {
            "target": "com.amazonaws.licensemanager#ListLicenseConfigurationsResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#FilterLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
```

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            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists the license configurations
 for your account.</p>"
        }
    },
    "com.amazonaws.licensemanager#ListLicenseConfigurationsRequest": {
        "type": "structure",
        "members": {
            "LicenseConfigurationArns": {
                "target": "com.amazonaws.licensemanager#StringList",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Names (ARN) of the license
configurations.</p>"
                }
            },
            "MaxResults": {
                "target": "com.amazonaws.licensemanager#BoxInteger",
                "traits": {
                    "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
                }
            },
            "NextToken": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Token for the next
 set of results.</p>"
                }
            },
            "Filters": {
                "target": "com.amazonaws.licensemanager#Filters",
                "traits": {
                    "smithy.api#documentation": "<p>Filters to scope the results. The following filters and logical
operators\n        are supported:</p>\n        <ul>\n            <li>\n                <p>\n
<code>licenseCountingType</code> - The dimension for which licenses are counted.\n                Possible values are
<code>vCPU</code> | <code>Instance</code> | <code>Core</code> | <code>Socket</code>.\n                Logical
operators are <code>EQUALS</code> | <code>NOT_EQUALS</code>.</p>\n            </li>\n            <li>\n
<p>\n                <code>enforceLicenseCount</code> - A Boolean value that indicates whether hard license
enforcement is used. \n                Logical operators are <code>EQUALS</code> |
<code>NOT_EQUALS</code>.</p>\n
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</li>\n <li>\n <p>\n <code>usagelimitExceeded</code> - A Boolean value that indicates whether the available licenses have been exceeded. \n Logical operators are <code>EQUALS</code> | <code>NOT_EQUALS</code>.</p>\n </li>\n </ul>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#ListLicenseConfigurationsResponse": {
        "type": "structure",
        "members": {
          "LicenseConfigurations": {
            "target": "com.amazonaws.licensemanager#LicenseConfigurations",
            "traits": {
              "smithy.api#documentation": "<p>Information about the license configurations.</p>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",

           "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#ListLicenseConversionTasks": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#ListLicenseConversionTasksRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#ListLicenseConversionTasksResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
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            },
            {
              "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
              "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Lists the license type conversion tasks for your account.</p>"
          }
        },
        "com.amazonaws.licensemanager#ListLicenseConversionTasksRequest": {
          "type": "structure",
          "members": {
            "NextToken": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
              }
            },
            "MaxResults": {
              "target": "com.amazonaws.licensemanager#BoxInteger",
              "traits": {

      "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
              }
            },
            "Filters": {
              "target": "com.amazonaws.licensemanager#Filters",
              "traits": {
                "smithy.api#documentation": "<p>\n        Filters to scope the results. Valid filters are
<code>ResourceArns</code> and <code>Status</code>.\n      </p>"
              }
            }
          },
          "traits": {
            "smithy.api#input": {}
          }
        },
        "com.amazonaws.licensemanager#ListLicenseConversionTasksResponse": {
          "type": "structure",
          "members": {
            "LicenseConversionTasks": {
              "target": "com.amazonaws.licensemanager#LicenseConversionTasks",
              "traits": {
                "smithy.api#documentation": "<p>Information about the license configuration tasks for your
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account.</p>"
                }
            },
            "NextToken": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Token for the next set of results.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#ListLicenseManagerReportGenerators": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#ListLicenseManagerReportGeneratorsRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#ListLicenseManagerReportGeneratorsResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target":
"com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
```

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        ],
        "traits": {
          "smithy.api#documentation": "<p>Lists the report generators for your account.</p>"
        }
      },
      "com.amazonaws.licensemanager#ListLicenseManagerReportGeneratorsRequest":
{
        "type": "structure",
        "members": {
          "Filters": {
            "target": "com.amazonaws.licensemanager#FilterList",
            "traits": {
              "smithy.api#documentation": "<p>Filters to scope the results. The following filters are supported:
</p>\n      <ul>\n        <li>\n          <p>\n            <code>LicenseConfigurationArn</code>\n
</p>\n        </li>\n      </ul>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanager#MaxSize100",
            "traits":
{
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#ListLicenseManagerReportGeneratorsResponse": {
        "type": "structure",
        "members": {
          "ReportGenerators": {
            "target": "com.amazonaws.licensemanager#ReportGeneratorList",
            "traits": {
              "smithy.api#documentation": "<p>A report generator that creates periodic reports about your license
configurations.</p>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
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```
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }

        }
        },
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#ListLicenseSpecificationsForResource": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#ListLicenseSpecificationsForResourceRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#ListLicenseSpecificationsForResourceResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
             },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Describes the license configurations for the specified resource.</p>"
        }
    },
    "com.amazonaws.licensemanager#ListLicenseSpecificationsForResourceRequest": {
        "type": "structure",
        "members": {
            "ResourceArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of a resource that has an
associated license configuration.</p>",
                    "smithy.api#required": {}
                }
```

```
        },
        "MaxResults": {
          "target": "com.amazonaws.licensemanager#BoxInteger",
          "traits": {

    "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
          }
        },
        "NextToken": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Token for the next set of results.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#ListLicenseSpecificationsForResourceResponse": {
      "type": "structure",
      "members": {
        "LicenseSpecifications": {
          "target": "com.amazonaws.licensemanager#LicenseSpecifications",
          "traits": {
            "smithy.api#documentation": "<p>License configurations associated with a resource.</p>"
          }
        },
        "NextToken": {
           "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Token for the next set of results.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanager#ListLicenseVersions": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#ListLicenseVersionsRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#ListLicenseVersionsResponse"
      },
      "errors": [
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```
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Lists all versions of the specified license.</p>"
      }
    },
    "com.amazonaws.licensemanager#ListLicenseVersionsRequest": {
      "type": "structure",
      "members": {
        "LicenseArn": {
          "target": "com.amazonaws.licensemanager#Arn",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>",
            "smithy.api#required": {}
          }
        },
        "NextToken": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Token for the next set of results.</p>"
          }
        },
        "MaxResults": {
          "target": "com.amazonaws.licensemanager#MaxSize100",
          "traits": {
            "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#ListLicenseVersionsResponse": {
```

```
        "type": "structure",
        "members": {
          "Licenses": {
            "target": "com.amazonaws.licensemanager#LicenseList",
            "traits": {
              "smithy.api#documentation": "<p>License details.</p>"
            }
          },

"NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#ListLicenses": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#ListLicensesRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#ListLicensesResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
           },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          },
          {
            "target": "com.amazonaws.licensemanager#ValidationException"
          }
        ],
```

```
        "traits": {
            "smithy.api#documentation": "<p>Lists the licenses for your account.</p>"
        }
    },
    "com.amazonaws.licensemanager#ListLicensesRequest": {
        "type": "structure",
        "members": {
            "LicenseArns": {
                "target": "com.amazonaws.licensemanager#ArnList",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Names (ARNs) of the licenses.</p>"
                }
            },

     "Filters": {
                "target": "com.amazonaws.licensemanager#FilterList",
                "traits": {
                    "smithy.api#documentation": "<p>Filters to scope the results. The following filters are
supported:</p>\n        <ul>\n            <li>\n                <p>\n                    <code>Beneficiary</code>\n                </p>\n
        </li>\n            <li>\n                <p>\n                    <code>ProductSKU</code>\n                </p>\n            </li>\n
    <li>\n                <p>\n                    <code>Fingerprint</code>\n                </p>\n            </li>\n            <li>\n
<p>\n                    <code>Status</code>\n                </p>\n            </li>\n        </ul>"
                }
            },
            "NextToken": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Token
 for the next set of results.</p>"
                }
            },
            "MaxResults": {
                "target": "com.amazonaws.licensemanager#MaxSize100",
                "traits": {
                    "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#ListLicensesResponse": {
        "type": "structure",
        "members": {
            "Licenses": {
                "target": "com.amazonaws.licensemanager#LicenseList",
                "traits": {
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            "smithy.api#documentation": "<p>License details.</p>"
          }
        },
        "NextToken": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {

"smithy.api#documentation": "<p>Token for the next set of results.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanager#ListReceivedGrants": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#ListReceivedGrantsRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#ListReceivedGrantsResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
          "target": "com.amazonaws.licensemanager#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Lists grants that are received. Received grants are grants created while
```

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specifying the\n         recipient as this Amazon Web Services account, your organization, or an organizational unit\n
    (OU) to which this member account belongs.</p>"
        }
      },
      "com.amazonaws.licensemanager#ListReceivedGrantsForOrganization": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#ListReceivedGrantsForOrganizationRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#ListReceivedGrantsForOrganizationResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          },
          {
            "target":
 "com.amazonaws.licensemanager#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Lists the grants received for all accounts in the organization.</p>"
        }
      },
      "com.amazonaws.licensemanager#ListReceivedGrantsForOrganizationRequest": {
        "type": "structure",
        "members": {
          "LicenseArn": {
            "target": "com.amazonaws.licensemanager#Arn",
            "traits": {
              "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the received license.</p>",
              "smithy.api#required": {}
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            }
          },
          "Filters": {
            "target": "com.amazonaws.licensemanager#FilterList",
            "traits": {
              "smithy.api#documentation": "<p>Filters to scope the results. The following filters are
supported:</p>\n
    <ul>\n        <li>\n        <p>\n        <code>ParentArn</code>\n        </p>\n        </li>\n
<li>\n        <p>\n        <code>GranteePrincipalArn</code>\n        </p>\n        </li>\n        </ul>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanager#MaxSize100",
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#ListReceivedGrantsForOrganizationResponse":
{
        "type": "structure",
        "members": {
          "Grants": {
            "target": "com.amazonaws.licensemanager#GrantList",
            "traits": {
              "smithy.api#documentation": "<p>Lists the grants the organization has received.</p>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
```

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    },
    "com.amazonaws.licensemanager#ListReceivedGrantsRequest": {
      "type": "structure",
      "members": {
        "GrantArns": {
          "target": "com.amazonaws.licensemanager#ArnList",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Names (ARNs) of the grants.</p>"
          }
        },
        "Filters": {
          "target": "com.amazonaws.licensemanager#FilterList",
          "traits": {
            "smithy.api#documentation": "<p>Filters to scope the results. The following filters are
supported:</p>\n        <ul>\n          <li>\n            <p>\n              <code>ProductSKU</code>\n            </p>\n
        </li>\n          <li>\n            <p>\n              <code>LicenseIssuerName</code>\n            </p>\n
</li>\n          <li>\n            <p>\n              <code>LicenseArn</code>\n            </p>\n          </li>\n
<li>\n            <p>\n              <code>GrantStatus</code>\n            </p>\n          </li>\n          <li>\n
<p>\n
        <code>GranterAccountId</code>\n            </p>\n          </li>\n        </ul>"
          }
        },
        "NextToken": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Token for the next set of results.</p>"
          }
        },
        "MaxResults": {
          "target": "com.amazonaws.licensemanager#MaxSize100",
          "traits": {
            "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#ListReceivedGrantsResponse": {
      "type": "structure",
      "members": {
        "Grants": {
          "target": "com.amazonaws.licensemanager#GrantList",
          "traits": {
            "smithy.api#documentation": "<p>Received grant details.</p>"
          }
        },
```

```
        "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#output": {}
    }
},
"com.amazonaws.licensemanager#ListReceivedLicenses": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanager#ListReceivedLicensesRequest"
    },
    "output": {
        "target": "com.amazonaws.licensemanager#ListReceivedLicensesResponse"
    },
    "errors": [
        {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
            "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
        },
        {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
            "target": "com.amazonaws.licensemanager#ValidationException"
        }
    ],
    "traits": {
        "smithy.api#documentation": "<p>Lists received licenses.</p>"
    }
},
"com.amazonaws.licensemanager#ListReceivedLicensesForOrganization":
```

```
{
        "type": "operation",
        "input": {
           "target": "com.amazonaws.licensemanager#ListReceivedLicensesForOrganizationRequest"
        },
        "output": {
           "target": "com.amazonaws.licensemanager#ListReceivedLicensesForOrganizationResponse"
        },
        "errors": [
           {
              "target": "com.amazonaws.licensemanager#AccessDeniedException"
           },
           {
              "target": "com.amazonaws.licensemanager#AuthorizationException"
           },
           {
              "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
           },
           {
              "target": "com.amazonaws.licensemanager#RateLimitExceededException"
           },
           {
              "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
           },
           {

     "target": "com.amazonaws.licensemanager#ServerInternalException"
           },
           {
              "target": "com.amazonaws.licensemanager#ValidationException"
           }
        ],
        "traits": {
           "smithy.api#documentation": "<p>Lists the licenses received for all accounts in the organization.</p>"
        }
     },
     "com.amazonaws.licensemanager#ListReceivedLicensesForOrganizationRequest": {
        "type": "structure",
        "members": {
           "Filters": {
              "target": "com.amazonaws.licensemanager#FilterList",
              "traits": {
                 "smithy.api#documentation": "<p>Filters to scope the results. The following filters are
supported:</p>\n        <ul>\n          <li>\n            <p>\n              <code>Beneficiary</code>\n            </p>\n
      </li>\n          <li>\n            <p>\n              <code>ProductSKU</code>\n
           </p>\n          </li>\n        </ul>"
              }
           },
```

```
      "NextToken": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>Token for the next set of results.</p>"
        }
      },
      "MaxResults": {
        "target": "com.amazonaws.licensemanager#MaxSize100",
        "traits": {
          "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
        }
      }
    },
    "traits": {
      "smithy.api#input": {}
    }
  },
  "com.amazonaws.licensemanager#ListReceivedLicensesForOrganizationResponse": {
    "type": "structure",
    "members": {
      "Licenses": {
        "target": "com.amazonaws.licensemanager#GrantedLicenseList",
         "traits": {
          "smithy.api#documentation": "<p>Lists the licenses the organization has received.</p>"
        }
      },
      "NextToken": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>Token for the next set of results.</p>"
        }
      }
    },
    "traits": {
      "smithy.api#output": {}
    }
  },
  "com.amazonaws.licensemanager#ListReceivedLicensesRequest": {
    "type": "structure",
    "members": {
      "LicenseArns": {
        "target": "com.amazonaws.licensemanager#ArnList",
        "traits": {
          "smithy.api#documentation": "<p>Amazon Resource Names (ARNs) of the licenses.</p>"
        }
      },
```

```
        "Filters": {
            "target": "com.amazonaws.licensemanager#FilterList",
            "traits": {
                "smithy.api#documentation": "<p>Filters to scope the results. The following filters are
supported:</p>\n        <ul>\n          <li>\n            <p>\n              <code>ProductSKU</code>\n            </p>\n
        </li>\n          <li>\n            <p>\n              <code>Status</code>\n            </p>\n          </li>\n
<li>\n            <p>\n              <code>Fingerprint</code>\n            </p>\n          </li>\n          <li>\n
<p>\n              <code>IssuerName</code>\n            </p>\n          </li>\n          <li>\n            <p>\n
<code>Beneficiary</code>\n            </p>\n          </li>\n        </ul>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
             "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanager#MaxSize100",
            "traits": {
                "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#ListReceivedLicensesResponse": {
        "type": "structure",
        "members": {
          "Licenses": {
            "target": "com.amazonaws.licensemanager#GrantedLicenseList",
            "traits": {
                "smithy.api#documentation": "<p>Received license details.</p>"
            }
          },

          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
```

```
},
"com.amazonaws.licensemanager#ListResourceInventory": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanager#ListResourceInventoryRequest"
    },
    "output": {
        "target": "com.amazonaws.licensemanager#ListResourceInventoryResponse"
    },
    "errors": [
        {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
             "target": "com.amazonaws.licensemanager#FailedDependencyException"
        },
        {
            "target": "com.amazonaws.licensemanager#FilterLimitExceededException"
        },
        {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
        }
    ],
    "traits": {
        "smithy.api#documentation": "<p>Lists resources managed using Systems Manager inventory.</p>"
    }
},
"com.amazonaws.licensemanager#ListResourceInventoryRequest": {
    "type": "structure",
    "members": {
        "MaxResults": {
            "target": "com.amazonaws.licensemanager#BoxInteger",
             "traits": {
                "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
        },
        "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
```

```
            "smithy.api#documentation": "<p>Token for the next set of results.</p>"
          }
        },
        "Filters": {
          "target": "com.amazonaws.licensemanager#InventoryFilterList",
          "traits": {
            "smithy.api#documentation": "<p>Filters to scope the results. The following filters and logical
operators\n are supported:</p>\n <ul>\n <li>\n <p>\n <code>account_id</code>
- The ID of the Amazon Web Services account that owns the resource.\n Logical operators are
<code>EQUALS</code> | <code>NOT_EQUALS</code>.</p>\n
 </li>\n <li>\n <p>\n <code>application_name</code> - The name of the
application. \n Logical operators are <code>EQUALS</code> | <code>BEGINS_WITH</code>.</p>\n
 </li>\n <li>\n <p>\n <code>license_included</code> - The type of license included. \n
 Logical operators are <code>EQUALS</code> | <code>NOT_EQUALS</code>.\n Possible values
are <code>sql-server-enterprise</code> | \n <code>sql-server-standard</code> | \n <code>sql-
server-web</code> | \n <code>windows-server-datacenter</code>.</p>\n </li>\n <li>\n
 <p>\n <code>platform</code> - The platform of the resource.\n Logical operators are
<code>EQUALS</code> | <code>BEGINS_WITH</code>.</p>\n </li>\n <li>\n <p>\n
 <code>resource_id</code> - The ID of the resource. \n Logical operators are
<code>EQUALS</code> | <code>NOT_EQUALS</code>.</p>\n </li>\n <li>\n <p>\n
 <code>tag:<key></code> - The key/value combination of a tag assigned \n to the resource. Logical
operators are <code>EQUALS</code> (single account) or\n <code>EQUALS</code> |
<code>NOT_EQUALS</code> (cross account).</p>\n </li>\n </ul>"
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#ListResourceInventoryResponse": {
      "type": "structure",
      "members": {
        "ResourceInventoryList": {
          "target": "com.amazonaws.licensemanager#ResourceInventoryList",
          "traits": {
            "smithy.api#documentation": "<p>Information
 about the resources.</p>"
          }
        },
        "NextToken": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Token for the next set of results.</p>"
          }
        }
      },
      "traits": {
```

```
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#ListTagsForResource": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#ListTagsForResourceRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#ListTagsForResourceResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
             },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists the tags for the specified license configuration.</p>"
        }
    },
    "com.amazonaws.licensemanager#ListTagsForResourceRequest": {
        "type": "structure",
        "members": {
            "ResourceArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license
configuration.</p>",

    "smithy.api#required": {}
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
```

```
    },
    "com.amazonaws.licensemanager#ListTagsForResourceResponse": {
      "type": "structure",
      "members": {
        "Tags": {
          "target": "com.amazonaws.licensemanager#TagList",
          "traits": {
            "smithy.api#documentation": "<p>Information about the tags.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanager#ListTokens": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#ListTokensRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#ListTokensResponse"
      },
      "errors":
[
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
          "target": "com.amazonaws.licensemanager#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Lists your tokens.</p>"
      }
    },
    "com.amazonaws.licensemanager#ListTokensRequest": {
      "type": "structure",
      "members": {
```

```
            "TokenIds": {
              "target": "com.amazonaws.licensemanager#StringList",
              "traits": {

                "smithy.api#documentation": "<p>Token IDs.</p>"
              }
            },
            "Filters": {
              "target": "com.amazonaws.licensemanager#FilterList",
              "traits": {
                "smithy.api#documentation": "<p>Filters to scope the results. The following filter is supported:</p>\n
    <ul>\n        <li>\n        <p>\n        <code>LicenseArns</code>\n        </p>\n        </li>\n
</ul>"
              }
            },
            "NextToken": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
              }
            },
            "MaxResults": {
              "target": "com.amazonaws.licensemanager#MaxSize100",
              "traits": {
                "smithy.api#documentation":
 "<p>Maximum number of results to return in a single call.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#input": {}
          }
        },
        "com.amazonaws.licensemanager#ListTokensResponse": {
          "type": "structure",
          "members": {
            "Tokens": {
              "target": "com.amazonaws.licensemanager#TokenList",
              "traits": {
                "smithy.api#documentation": "<p>Received token details.</p>"
              }
            },
            "NextToken": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
              }
            }
```

```
        },
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#ListUsageForLicenseConfiguration":
{
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#ListUsageForLicenseConfigurationRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#ListUsageForLicenseConfigurationResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#FilterLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
             {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists all license usage records for a license configuration, displaying
license\n          consumption details by resource at a selected point in time. Use this action to audit the\n          current
license consumption for any license inventory and configuration.</p>"
        }
    },
    "com.amazonaws.licensemanager#ListUsageForLicenseConfigurationRequest": {
        "type": "structure",
        "members": {
            "LicenseConfigurationArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license
configuration.</p>",
```

```
                "smithy.api#required": {}
              }
            },
            "MaxResults": {
              "target": "com.amazonaws.licensemanager#BoxInteger",
              "traits": {
                "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
              }
            },
            "NextToken": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
              }
            },
            "Filters": {
              "target": "com.amazonaws.licensemanager#Filters",
              "traits": {
                "smithy.api#documentation": "<p>Filters to scope the results. The following filters and logical operators\n        are supported:</p>\n        <ul>\n          <li>\n            <p>\n              <code>resourceArn</code> - The ARN of the license configuration resource.\n              Logical operators are <code>EQUALS</code> | <code>NOT_EQUALS</code>.</p>\n          </li>\n          <li>\n            <p>\n              <code>resourceType</code> - The resource type (<code>EC2_INSTANCE</code> | <code>EC2_HOST</code> | <code>EC2_AMI</code> | <code>SYSTEMS_MANAGER_MANAGED_INSTANCE</code>). \n              Logical operators are <code>EQUALS</code> | <code>NOT_EQUALS</code>.</p>\n          </li>\n          <li>\n            <p>\n              <code>resourceAccount</code> - The ID of the account that owns the resource. \n              Logical operators are <code>EQUALS</code> | <code>NOT_EQUALS</code>.</p>\n          </li>\n        </ul>"
              }
            }
          },
          "traits": {
            "smithy.api#input": {}
          }
        },
        "com.amazonaws.licensemanager#ListUsageForLicenseConfigurationResponse": {
          "type": "structure",
          "members": {

            "LicenseConfigurationUsageList": {
              "target": "com.amazonaws.licensemanager#LicenseConfigurationUsageList",
              "traits": {
                "smithy.api#documentation": "<p>Information about the license configurations.</p>"
              }
            },
            "NextToken": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
```

```
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#output": {}
          }
        },
        "com.amazonaws.licensemanager#Location": {
          "type": "string"
        },
        "com.amazonaws.licensemanager#Long": {
          "type": "long"
        },
        "com.amazonaws.licensemanager#ManagedResourceSummary": {
          "type": "structure",
          "members": {
            "ResourceType":
{
              "target": "com.amazonaws.licensemanager#ResourceType",
              "traits": {
                "smithy.api#documentation": "<p>Type of resource associated with a license.</p>"
              }
            },
            "AssociationCount": {
              "target": "com.amazonaws.licensemanager#BoxLong",
              "traits": {
                "smithy.api#documentation": "<p>Number of resources associated with licenses.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>Summary information about a managed resource.</p>"
          }
        },
        "com.amazonaws.licensemanager#ManagedResourceSummaryList": {
          "type": "list",
          "member": {
            "target": "com.amazonaws.licensemanager#ManagedResourceSummary"
          }
        },
        "com.amazonaws.licensemanager#MaxSize100": {

        "type": "integer",
          "traits": {
            "smithy.api#range": {
              "min": 1,
              "max": 100
```

```
        }
    }
},
"com.amazonaws.licensemanager#MaxSize3StringList": {
    "type": "list",
    "member": {
        "target": "com.amazonaws.licensemanager#String"
    },
    "traits": {
        "smithy.api#length": {
            "min": 0,
            "max": 3
        }
    }
},
"com.amazonaws.licensemanager#Message": {
    "type": "string"
},
"com.amazonaws.licensemanager#Metadata": {
    "type": "structure",
    "members": {
        "Name": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>The key name.</p>"
            }
        },

"Value": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>The value.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#documentation": "<p>Describes key/value pairs.</p>"
    }
},
"com.amazonaws.licensemanager#MetadataList": {
    "type": "list",
    "member": {
        "target": "com.amazonaws.licensemanager#Metadata"
    }
},
"com.amazonaws.licensemanager#NoEntitlementsAllowedException": {
    "type": "structure",
    "members": {
```

```
            "Message": {
                "target": "com.amazonaws.licensemanager#Message"
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>There are no entitlements found for this license, or the entitlement maximum count is reached.</p>",
             "smithy.api#error": "client",
            "smithy.api#httpError": 400
        }
    },
    "com.amazonaws.licensemanager#Options": {
        "type": "structure",
        "members": {
            "ActivationOverrideBehavior": {
                "target": "com.amazonaws.licensemanager#ActivationOverrideBehavior",
                "traits": {
                    "smithy.api#documentation": "<p>An activation option for your grant that determines the behavior of activating a grant.\n          Activation options can only be used with granted licenses sourced from the Amazon Web Services Marketplace. Additionally, the operation must specify the value of <code>ACTIVE</code> for the\n <code>Status</code> parameter.</p>\n          <ul>\n             <li>\n                <p>As a license administrator, you can optionally specify an\n                   <code>ActivationOverrideBehavior</code> when activating a grant.</p>\n             </li>\n             <li>\n                <p>As a grantor, you can optionally specify an\n <code>ActivationOverrideBehavior</code> when you activate a grant for a grantee\n                   account in your organization.</p>\n             </li>\n             <li>\n                <p>As a grantee, if the grantor creating the distributed grant doesnt specify an\n                   <code>ActivationOverrideBehavior</code>, you can optionally specify one when you\n                   are activating the grant.</p>\n             </li>\n          </ul>\n          <dl>\n             <dt>DISTRIBUTED_GRANTS_ONLY</dt>\n             <dd>\n                <p>Use this value to activate a grant without replacing any member accounts\n                   active grants for the same product.</p>\n             </dd>\n             <dt>ALL_GRANTS_PERMITTED_BY_ISSUER</dt>\n             <dd>\n                <p>Use this value to activate a grant and disable other active grants in any\n                   member accounts
 for the same product. This action will also replace their\n                   previously activated grants with this activated grant.</p>\n             </dd>\n          </dl>"
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>The options you can specify when you create a new version of a grant, such as activation\n          override behavior. For more information, see <a href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/granted-licenses.html\">Granted licenses in License Manager</a> in the <i>License Manager User Guide</i>.</p>"
        }
    },
    "com.amazonaws.licensemanager#OrganizationConfiguration": {
        "type": "structure",
        "members": {
            "EnableIntegration": {
                "target": "com.amazonaws.licensemanager#Boolean",
```

```
            "traits": {
              "smithy.api#default": false,
              "smithy.api#documentation":
"<p>Enables Organizations integration.</p>",
              "smithy.api#required": {}
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Configuration information for Organizations.</p>"
        }
      },
      "com.amazonaws.licensemanager#PrincipalArnList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#Arn"
        },
        "traits": {
          "smithy.api#length": {
            "min": 1,
            "max": 1
          }
        }
      },
      "com.amazonaws.licensemanager#ProductInformation": {
        "type": "structure",
        "members": {
          "ResourceType": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Resource type. The
possible values are <code>SSM_MANAGED</code> | <code>RDS</code>.</p>",
              "smithy.api#required": {}
            }
          },
          "ProductInformationFilterList": {
            "target": "com.amazonaws.licensemanager#ProductInformationFilterList",
            "traits": {
              "smithy.api#documentation": "<p>A Product information filter consists of a
<code>ProductInformationFilterComparator</code> which is a logical operator, a
<code>ProductInformationFilterName</code> which specifies the type of filter being declared, and a
<code>ProductInformationFilterValue</code> that specifies the value to filter on. </p>\n          <p>Accepted values
for <code>ProductInformationFilterName</code> are listed here along with descriptions and valid options for
<code>ProductInformationFilterComparator</code>. </p>\n          <p>The following filters and are supported when
the resource type \n          is <code>SSM_MANAGED</code>:</p>\n
          <ul>\n            <li>\n              <p>\n                <code>Application Name</code> - The name of the
application.\n                Logical operator is <code>EQUALS</code>.</p>\n            </li>\n            <li>\n
<p>\n                <code>Application Publisher</code> - The publisher of the application.\n                Logical
```

operator is <code>EQUALS</code>. \n \n \n \n <code>Application Version</code> - The version of the application.\n Logical operator is <code>EQUALS</code>. \n \n \n \n <code>Platform Name</code> - The name of the platform.\n Logical operator is <code>EQUALS</code>. \n \n \n \n <code>Platform Type</code> - The platform type.\n Logical operator is <code>EQUALS</code>. \n \n \n \n <code>Tag:key</code> - The key of a tag attached to an Amazon Web Services resource you wish to exclude from automated discovery. Logical operator is <code>NOT_EQUALS</code>. The key for your tag must be appended to <code>Tag:</code> following the example: <code>Tag:name-of-your-key</code>. <code>ProductInformationFilterValue</code> is optional if you are not using values for the key.\n \n \n \n \n <code>AccountId</code> - The 12-digit ID of an Amazon Web Services account you wish to exclude from automated discovery.\n Logical operator is <code>NOT_EQUALS</code>. \n \n \n \n <code>License Included</code> - The type of license included.\n Logical operators are <code>EQUALS</code> and <code>NOT_EQUALS</code>.\n Possible values are: <code>sql-server-enterprise</code> | \n <code>sql-server-standard</code> | \n <code>sql-server-web</code> | \n <code>windows-server-datacenter</code>. \n \n \n The following filters and logical operators are supported when the resource type\n is <code>RDS</code>: \n \n \n \n <code>Engine Edition</code> - The edition of the database engine.\n Logical operator is <code>EQUALS</code>.\n Possible values are: <code>oracle-ee</code> | <code>oracle-se</code> | <code>oracle-se1</code> | <code>oracle-se2</code>. \n \n \n \n <code>License Pack</code> - The license pack.\n Logical operator is <code>EQUALS</code>.\n Possible values are: <code>data guard</code> | \n <code>diagnostic pack sqlt</code> | \n <code>tuning pack sqlt</code> | \n <code>ols</code> | \n <code>olap</code>. \n \n ",
                "smithy.api#required": {}
            }
        }
    },
    "traits": {
        "smithy.api#documentation": " Describes product information for a license configuration. "
    }
},
"com.amazonaws.licensemanager#ProductInformationFilter": {
    "type": "structure",
    "members": {
        "ProductInformationFilterName": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": " Filter name. ",
                "smithy.api#required": {}
            }
        },
        "ProductInformationFilterValue": {
            "target": "com.amazonaws.licensemanager#StringList",

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      "traits": {
            "smithy.api#documentation": "<p>Filter value.</p>"
          }
        },
        "ProductInformationFilterComparator": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Logical operator.</p>",
            "smithy.api#required": {}
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>Describes product information filters.</p>"
      }
    },
    "com.amazonaws.licensemanager#ProductInformationFilterList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanager#ProductInformationFilter"
      }
    },
    "com.amazonaws.licensemanager#ProductInformationList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanager#ProductInformation"
      }
    },
    "com.amazonaws.licensemanager#ProvisionalConfiguration": {
      "type": "structure",
      "members": {
        "MaxTimeToLiveInMinutes": {
          "target": "com.amazonaws.licensemanager#BoxInteger",
          "traits": {
            "smithy.api#documentation": "<p>Maximum time for the provisional configuration, in minutes.</p>",
            "smithy.api#required": {}
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>Details about a provisional configuration.</p>"
      }
    },
    "com.amazonaws.licensemanager#RateLimitExceededException": {
      "type": "structure",
      "members": {
        "Message": {
          "target": "com.amazonaws.licensemanager#Message"
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            }
        },
        "traits": {
            "aws.protocols#awsQueryError": {
                "code": "RateLimitExceeded",
                "httpResponseCode": 429
            },
            "smithy.api#documentation": "<p>Too many requests have been submitted. Try again after a brief
wait.</p>",
            "smithy.api#error": "client",
            "smithy.api#httpError": 429
        }
    },
    "com.amazonaws.licensemanager#ReceivedMetadata": {
        "type": "structure",
        "members": {
            "ReceivedStatus": {
                "target": "com.amazonaws.licensemanager#ReceivedStatus",
                "traits": {
                    "smithy.api#documentation": "<p>Received status.</p>"
                }
            },
            "ReceivedStatusReason": {
                "target": "com.amazonaws.licensemanager#StatusReasonMessage",
                "traits": {
                    "smithy.api#documentation": "<p>Received
 status reason.</p>"
                }
            },
            "AllowedOperations": {
                "target": "com.amazonaws.licensemanager#AllowedOperationList",
                "traits": {
                    "smithy.api#documentation": "<p>Allowed operations.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>Metadata associated with received licenses and grants.</p>"
        }
    },
    "com.amazonaws.licensemanager#ReceivedStatus": {
        "type": "enum",
        "members": {
            "PENDING_WORKFLOW": {
                "target": "smithy.api#Unit",
                "traits": {
                    "smithy.api#enumValue": "PENDING_WORKFLOW"
                }
```

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            },
            "PENDING_ACCEPT": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue":
"PENDING_ACCEPT"
               }
            },
            "REJECTED": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "REJECTED"
               }
            },
            "ACTIVE": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "ACTIVE"
               }
            },
            "FAILED_WORKFLOW": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "FAILED_WORKFLOW"
               }
            },
            "DELETED": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "DELETED"
               }
            },
            "DISABLED": {
               "target": "smithy.api#Unit",
                "traits": {
                  "smithy.api#enumValue": "DISABLED"
               }
            },
            "WORKFLOW_COMPLETED": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "WORKFLOW_COMPLETED"
               }
            }
         }
      },
      "com.amazonaws.licensemanager#RedirectException": {
         "type": "structure",
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      "members": {
        "Location": {
          "target": "com.amazonaws.licensemanager#Location",
          "traits": {
            "smithy.api#httpHeader": "Location"
          }
        },
        "Message": {
          "target": "com.amazonaws.licensemanager#Message"
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>This is not the correct Region for the resource. Try again.</p>",
         "smithy.api#error": "client",
        "smithy.api#httpError": 308
      }
    },
    "com.amazonaws.licensemanager#RejectGrant": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#RejectGrantRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#RejectGrantResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target":
"com.amazonaws.licensemanager#ResourceLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
          "target": "com.amazonaws.licensemanager#ValidationException"
        }
```

```
        ],
        "traits": {
            "smithy.api#documentation": "<p>Rejects the specified grant.</p>"
        }
    },
    "com.amazonaws.licensemanager#RejectGrantRequest": {
        "type": "structure",
        "members": {
            "GrantArn": {
                "target": "com.amazonaws.licensemanager#Arn",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the grant.</p>",
                    "smithy.api#required": {}
                }
            }
        },
        "traits": {
            "smithy.api#input": {}

}
    },
    "com.amazonaws.licensemanager#RejectGrantResponse": {
        "type": "structure",
        "members": {
            "GrantArn": {
                "target": "com.amazonaws.licensemanager#Arn",
                "traits": {
                    "smithy.api#documentation": "<p>Grant ARN.</p>"
                }
            },
            "Status": {
                "target": "com.amazonaws.licensemanager#GrantStatus",
                "traits": {
                    "smithy.api#documentation": "<p>Grant status.</p>"
                }
            },
            "Version": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Grant version.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#RenewType":
```

```
{
        "type": "enum",
        "members": {
          "NONE": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "None"
            }
          },
          "WEEKLY": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "Weekly"
            }
          },
          "MONTHLY": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "Monthly"
            }
          }
        }
      },
      "com.amazonaws.licensemanager#ReportContext": {
        "type": "structure",
        "members": {
          "licenseConfigurationArns": {
            "target": "com.amazonaws.licensemanager#ArnList",
            "traits": {

        "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license configuration that this
generator reports on.</p>",
              "smithy.api#required": {}
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Details of the license configuration that this generator reports on.</p>"
        }
      },
      "com.amazonaws.licensemanager#ReportFrequency": {
        "type": "structure",
        "members": {
          "value": {
            "target": "com.amazonaws.licensemanager#Integer",
            "traits": {
              "smithy.api#documentation": "<p>Number of times within the frequency period that a report is
generated.  \n        The only supported value is <code>1</code>.</p>"
```

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            }
          },
          "period": {
            "target": "com.amazonaws.licensemanager#ReportFrequencyType",

           "traits": {
              "smithy.api#documentation": "<p>Time period between each report. The period can be daily, weekly,
or monthly.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Details about how frequently reports are generated.</p>"
        }
      },
      "com.amazonaws.licensemanager#ReportFrequencyType": {
        "type": "enum",
        "members": {
          "DAY": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "DAY"
            }
          },
          "WEEK": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "WEEK"
            }
          },
          "MONTH": {
            "target": "smithy.api#Unit",
            "traits":
{
              "smithy.api#enumValue": "MONTH"
            }
          }
        }
      },
      "com.amazonaws.licensemanager#ReportGenerator": {
        "type": "structure",
        "members": {
          "ReportGeneratorName": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Name of the report generator.</p>"
            }
          },
```

```
        "ReportType": {
          "target": "com.amazonaws.licensemanager#ReportTypeList",
          "traits": {
            "smithy.api#documentation": "<p>Type of reports that are generated.</p>"
          }
        },
        "ReportContext": {
          "target": "com.amazonaws.licensemanager#ReportContext",
          "traits": {
            "smithy.api#documentation": "<p>License
configuration type for this generator.</p>"
          }
        },
        "ReportFrequency": {
          "target": "com.amazonaws.licensemanager#ReportFrequency",
          "traits": {
            "smithy.api#documentation": "<p>Details about how frequently reports are generated.</p>"
          }
        },
        "LicenseManagerReportGeneratorArn": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the report generator.</p>"
          }
        },
        "LastRunStatus": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Status of the last report generation attempt.</p>"
          }
        },
        "LastRunFailureReason":
{
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Failure message for the last report generation attempt.</p>"
          }
        },
        "LastReportGenerationTime": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Time the last report was generated at.</p>"
          }
        },
        "ReportCreatorAccount": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>The Amazon Web Services account ID used to create the report
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generator.</p>"
                }
            },
            "Description": {
                "target": "com.amazonaws.licensemanager#String",

        "traits": {
                    "smithy.api#documentation": "<p>Description of the report generator.</p>"
                }
            },
            "S3Location": {
                "target": "com.amazonaws.licensemanager#S3Location",
                "traits": {
                    "smithy.api#documentation": "<p>Details of the S3 bucket that report generator reports are published
to.</p>"
                }
            },
            "CreateTime": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Time the report was created.</p>"
                }
            },
            "Tags": {
                "target": "com.amazonaws.licensemanager#TagList",
                "traits": {
                    "smithy.api#documentation": "<p>Tags associated with the report generator.</p>"
                }

      }
        },
        "traits": {
            "smithy.api#documentation": "<p>Describe the details of a report generator.</p>"
        }
      },
      "com.amazonaws.licensemanager#ReportGeneratorList": {
        "type": "list",
        "member": {
            "target": "com.amazonaws.licensemanager#ReportGenerator"
        }
      },
      "com.amazonaws.licensemanager#ReportGeneratorName": {
        "type": "string",
        "traits": {
            "smithy.api#length": {
                "min": 1,
                "max": 100
            }
```

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        }
      },
      "com.amazonaws.licensemanager#ReportType": {
        "type": "enum",
        "members": {
          "LICENSE_CONFIGURATION_SUMMARY_REPORT": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "LicenseConfigurationSummaryReport"
            }

      },
          "LICENSE_CONFIGURATION_USAGE_REPORT": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "LicenseConfigurationUsageReport"
            }
          }
        }
      },
      "com.amazonaws.licensemanager#ReportTypeList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#ReportType"
        }
      },
      "com.amazonaws.licensemanager#ResourceInventory": {
        "type": "structure",
        "members": {
          "ResourceId": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>ID of the resource.</p>"
            }
          },
          "ResourceType": {
            "target": "com.amazonaws.licensemanager#ResourceType",
            "traits":
{
              "smithy.api#documentation": "<p>Type of resource.</p>"
            }
          },
          "ResourceArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the resource.</p>"
            }
          },
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            "Platform": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Platform of the resource.</p>"
              }
            },
            "PlatformVersion": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Platform version of the resource in the inventory.</p>"
              }
            },
            "ResourceOwningAccountId":
{
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>ID of the account that owns the resource.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>Details about a resource.</p>"
          }
        },
        "com.amazonaws.licensemanager#ResourceInventoryList": {
          "type": "list",
          "member": {
            "target": "com.amazonaws.licensemanager#ResourceInventory"
          }
        },
        "com.amazonaws.licensemanager#ResourceLimitExceededException": {
          "type": "structure",
          "members": {
            "Message": {
              "target": "com.amazonaws.licensemanager#Message"
            }
          },
          "traits": {
            "aws.protocols#awsQueryError": {
              "code": "ResourceLimitExceeded",

               "httpResponseCode": 400
            },
            "smithy.api#documentation": "<p>Your resource limits have been exceeded.</p>",
            "smithy.api#error": "client",
            "smithy.api#httpError": 400
          }
        },
```

```
"com.amazonaws.licensemanager#ResourceNotFoundException": {
    "type": "structure",
    "members": {
        "Message": {
            "target": "com.amazonaws.licensemanager#Message"
        }
    },
    "traits": {
        "aws.protocols#awsQueryError": {
            "code": "InvalidResource.NotFound",
            "httpResponseCode": 400
        },
        "smithy.api#documentation": "<p>The resource cannot be found.</p>",
        "smithy.api#error": "client",
        "smithy.api#httpError": 400
    }
},
"com.amazonaws.licensemanager#ResourceType": {
    "type": "enum",
     "members": {
        "EC2_INSTANCE": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "EC2_INSTANCE"
            }
        },
        "EC2_HOST": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "EC2_HOST"
            }
        },
        "EC2_AMI": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "EC2_AMI"
            }
        },
        "RDS": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "RDS"
            }
        },
        "SYSTEMS_MANAGER_MANAGED_INSTANCE": {
            "target": "smithy.api#Unit",
            "traits": {
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                    "smithy.api#enumValue": "SYSTEMS_MANAGER_MANAGED_INSTANCE"
                }
            }
        }
    },
    "com.amazonaws.licensemanager#S3Location": {
        "type": "structure",
        "members": {
            "bucket": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Name of the S3 bucket reports are published to.</p>"
                }
            },
            "keyPrefix": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Prefix of the S3 bucket reports are published to.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>Details of the S3 bucket that report generator reports are published
to.</p>"
        }
    },
    "com.amazonaws.licensemanager#ServerInternalException": {
        "type": "structure",
        "members": {
            "Message": {
                "target": "com.amazonaws.licensemanager#Message"
            }
        },
        "traits": {
            "aws.protocols#awsQueryError": {
                "code": "InternalError",
                "httpResponseCode": 500
            },
            "smithy.api#documentation": "<p>The server experienced an internal error. Try again.</p>",
            "smithy.api#error": "server",
            "smithy.api#httpError": 500
        }
    },
    "com.amazonaws.licensemanager#SignedToken": {
        "type": "string",
        "traits": {
            "smithy.api#length": {
                "min": 4096
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            }
        }
    },
    "com.amazonaws.licensemanager#StatusReasonMessage": {
        "type": "string",
        "traits":
{
            "smithy.api#length": {
                "min": 0,
                "max": 400
            },
            "smithy.api#pattern": "^[\\s\\S]+$"
        }
    },
    "com.amazonaws.licensemanager#String": {
        "type": "string"
    },
    "com.amazonaws.licensemanager#StringList": {
        "type": "list",
        "member": {
            "target": "com.amazonaws.licensemanager#String"
        }
    },
    "com.amazonaws.licensemanager#Tag": {
        "type": "structure",
        "members": {
            "Key": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Tag key.</p>"
                }
            },
            "Value": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation":
"<p>Tag value.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>Details about a tag for a license configuration.</p>"
        }
    },
    "com.amazonaws.licensemanager#TagKeyList": {
        "type": "list",
        "member": {
            "target": "com.amazonaws.licensemanager#String"
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        }
      },
      "com.amazonaws.licensemanager#TagList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#Tag"
        }
      },
      "com.amazonaws.licensemanager#TagResource": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#TagResourceRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#TagResourceResponse"
        },
        "errors": [
          {
            "target":
 "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Adds the specified tags to the specified license configuration.</p>"
        }
      },
      "com.amazonaws.licensemanager#TagResourceRequest": {
        "type": "structure",
        "members": {
          "ResourceArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits":
 {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license
configuration.</p>",
              "smithy.api#required": {}
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```
            }
          },
          "Tags": {
            "target": "com.amazonaws.licensemanager#TagList",
            "traits": {
              "smithy.api#documentation": "<p>One or more tags.</p>",
              "smithy.api#required": {}
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#TagResourceResponse": {
        "type": "structure",
        "members": {},
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#TokenData": {
        "type": "structure",
        "members": {
          "TokenId": {
            "target": "com.amazonaws.licensemanager#String",
             "traits": {
              "smithy.api#documentation": "<p>Token ID.</p>"
            }
          },
          "TokenType": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Type of token generated. The supported value is
<code>REFRESH_TOKEN</code>.</p>"
            }
          },
          "LicenseArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>"
            }
          },
          "ExpirationTime": {
            "target": "com.amazonaws.licensemanager#ISO8601DateTime",
            "traits": {
              "smithy.api#documentation": "<p>Token expiration time, in ISO8601-UTC
```

```
format.</p>"
                }
            },
            "TokenProperties": {
                "target": "com.amazonaws.licensemanager#MaxSize3StringList",
                "traits": {
                    "smithy.api#documentation": "<p>Data specified by the caller.</p>"
                }
            },
            "RoleArns": {
                "target": "com.amazonaws.licensemanager#ArnList",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Names (ARN) of the roles included in the
token.</p>"
                }
            },
            "Status": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Token status. The possible values are
<code>AVAILABLE</code> and <code>DELETED</code>.</p>"
                }
            }
        },
        "traits": {

          "smithy.api#documentation": "<p>Describes a token.</p>"
        }
    },
    "com.amazonaws.licensemanager#TokenList": {
        "type": "list",
        "member": {
            "target": "com.amazonaws.licensemanager#TokenData"
        }
    },
    "com.amazonaws.licensemanager#TokenString": {
        "type": "string",
        "traits": {
            "smithy.api#length": {
                "min": 0,
                "max": 4096
            },
            "smithy.api#pattern": "^\\S+$"
        }
    },
    "com.amazonaws.licensemanager#TokenType": {
        "type": "enum",
        "members": {
```

```
            "REFRESH_TOKEN": {
                "target": "smithy.api#Unit",
                "traits": {
                    "smithy.api#enumValue": "REFRESH_TOKEN"
                }
            }
        }
    },
    "com.amazonaws.licensemanager#UnsupportedDigitalSignatureMethodException":
{
        "type": "structure",
        "members": {
            "Message": {
                "target": "com.amazonaws.licensemanager#Message"
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>The digital signature method is unsupported. Try your request
again.</p>",
            "smithy.api#error": "client",
            "smithy.api#httpError": 400
        }
    },
    "com.amazonaws.licensemanager#UntagResource": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#UntagResourceRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#UntagResourceResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
             },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
```

```
        "traits": {
            "smithy.api#documentation": "<p>Removes the specified tags from the specified license
configuration.</p>"
        }
    },
    "com.amazonaws.licensemanager#UntagResourceRequest": {
        "type": "structure",
        "members": {
            "ResourceArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license
configuration.</p>",
                     "smithy.api#required": {}
                }
            },
            "TagKeys": {
                "target": "com.amazonaws.licensemanager#TagKeyList",
                "traits": {
                    "smithy.api#documentation": "<p>Keys identifying the tags to remove.</p>",
                    "smithy.api#required": {}
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#UntagResourceResponse": {
        "type": "structure",
        "members": {},
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#UpdateLicenseConfiguration": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#UpdateLicenseConfigurationRequest"
        },
        "output": {

 "target": "com.amazonaws.licensemanager#UpdateLicenseConfigurationResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
```

```
            {
              "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
              "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
              "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
              "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
              "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Modifies the attributes of an existing license configuration.</p>"
          }
        },
        "com.amazonaws.licensemanager#UpdateLicenseConfigurationRequest": {
          "type": "structure",
          "members": {
            "LicenseConfigurationArn": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license
configuration.</p>",
                "smithy.api#required": {}
              }
            },
            "LicenseConfigurationStatus": {
              "target": "com.amazonaws.licensemanager#LicenseConfigurationStatus",
              "traits": {
                "smithy.api#documentation": "<p>New status of the license configuration.</p>"
              }
            },
            "LicenseRules": {
              "target": "com.amazonaws.licensemanager#StringList",
              "traits": {

 "smithy.api#documentation": "<p>New license rule. The only rule that you can add after you create a license\n
 configuration is licenseAffinityToHost.</p>"
              }
            },
            "LicenseCount": {
              "target": "com.amazonaws.licensemanager#BoxLong",
              "traits": {
```

```
                "smithy.api#documentation": "<p>New number of licenses managed by the license
configuration.</p>"
              }
            },
            "LicenseCountHardLimit": {
              "target": "com.amazonaws.licensemanager#BoxBoolean",
              "traits": {
                "smithy.api#documentation": "<p>New hard limit of the number of available licenses.</p>"
              }
            },
            "Name": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>New name
 of the license configuration.</p>"
              }
            },
            "Description": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>New description of the license configuration.</p>"
              }
            },
            "ProductInformationList": {
              "target": "com.amazonaws.licensemanager#ProductInformationList",
              "traits": {
                "smithy.api#documentation": "<p>New product information.</p>"
              }
            },
            "DisassociateWhenNotFound": {
              "target": "com.amazonaws.licensemanager#BoxBoolean",
              "traits": {
                "smithy.api#documentation": "<p>When true, disassociates a resource when software is
uninstalled.</p>"
              }
            }
          },
          "traits":
 {
            "smithy.api#input": {}
          }
        },
        "com.amazonaws.licensemanager#UpdateLicenseConfigurationResponse": {
          "type": "structure",
          "members": {},
          "traits": {
            "smithy.api#output": {}
          }
```

```
    },
    "com.amazonaws.licensemanager#UpdateLicenseManagerReportGenerator": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#UpdateLicenseManagerReportGeneratorRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#UpdateLicenseManagerReportGeneratorResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
         },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
          "target": "com.amazonaws.licensemanager#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Updates a report generator.</p>\n        <p>After you make changes to a report generator, it starts generating new reports within 60 minutes of being updated.</p>"
      }
    },
    "com.amazonaws.licensemanager#UpdateLicenseManagerReportGeneratorRequest": {
      "type": "structure",
      "members": {
        "LicenseManagerReportGeneratorArn": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the report generator to
```

update. ",
"smithy.api#required": {}
}
},
"ReportGeneratorName": {
"target": "com.amazonaws.licensemanager#ReportGeneratorName",
"traits": {
"smithy.api#documentation": " Name of the report generator. ",
"smithy.api#required": {}
}
},
"Type": {
"target": "com.amazonaws.licensemanager#ReportTypeList",
"traits": {
"smithy.api#documentation":
" Type of reports to generate. The following report types are supported: \n \n \n
License configuration report - Reports the number and details of consumed licenses for a license
configuration. \n \n \n Resource report - Reports the tracked licenses and
resource consumption for a license configuration. \n \n ",
"smithy.api#required": {}
}
},
"ReportContext": {
"target": "com.amazonaws.licensemanager#ReportContext",
"traits": {
"smithy.api#documentation": " The report context. ",
"smithy.api#required": {}
}
},
"ReportFrequency": {
"target": "com.amazonaws.licensemanager#ReportFrequency",
"traits":
{
"smithy.api#documentation": " Frequency by which reports are generated. ",
"smithy.api#required": {}
}
},
"ClientToken": {
"target": "com.amazonaws.licensemanager#ClientRequestToken",
"traits": {
"smithy.api#documentation": " Unique, case-sensitive identifier that you provide to ensure the
idempotency of the request. ",
"smithy.api#required": {}
}
},
"Description": {
"target": "com.amazonaws.licensemanager#String",
"traits": {

```
                "smithy.api#documentation": "<p>Description of the report generator.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#input": {}
          }
        },
        "com.amazonaws.licensemanager#UpdateLicenseManagerReportGeneratorResponse":
{
          "type": "structure",
          "members": {},
          "traits": {
            "smithy.api#output": {}
          }
        },
        "com.amazonaws.licensemanager#UpdateLicenseSpecificationsForResource": {
          "type": "operation",
          "input": {
            "target": "com.amazonaws.licensemanager#UpdateLicenseSpecificationsForResourceRequest"
          },
          "output": {
            "target": "com.amazonaws.licensemanager#UpdateLicenseSpecificationsForResourceResponse"
          },
          "errors": [
            {
              "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
              "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
              "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },

            {
              "target": "com.amazonaws.licensemanager#InvalidResourceStateException"
            },
            {
              "target": "com.amazonaws.licensemanager#LicenseUsageException"
            },
            {
              "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
              "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
          ],
```

```
        "traits": {
            "smithy.api#documentation": "<p>Adds or removes the specified license configurations for the specified
Amazon Web Services resource.</p>\n          <p>You can update the license specifications of AMIs, instances, and
hosts.\n          You cannot update the license specifications for launch templates and CloudFormation templates, \n
 as they send license configurations to the operation that creates the resource.</p>"
        }
    },

    "com.amazonaws.licensemanager#UpdateLicenseSpecificationsForResourceRequest": {
        "type": "structure",
        "members": {
            "ResourceArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the Amazon Web Services
resource.</p>",
                    "smithy.api#required": {}
                }
            },
            "AddLicenseSpecifications": {
                "target": "com.amazonaws.licensemanager#LicenseSpecifications",
                "traits": {
                    "smithy.api#documentation": "<p>ARNs of the license configurations to add.</p>"
                }
            },
            "RemoveLicenseSpecifications": {
                "target": "com.amazonaws.licensemanager#LicenseSpecifications",
                "traits": {
                    "smithy.api#documentation":
 "<p>ARNs of the license configurations to remove.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#UpdateLicenseSpecificationsForResourceResponse": {
        "type": "structure",
        "members": {},
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#UpdateServiceSettings": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#UpdateServiceSettingsRequest"
```

```
        },
        "output": {
            "target": "com.amazonaws.licensemanager#UpdateServiceSettingsResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
             },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Updates License Manager settings for the current Region.</p>"
        }
    },
    "com.amazonaws.licensemanager#UpdateServiceSettingsRequest": {
        "type": "structure",
        "members": {
            "S3BucketArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the Amazon S3 bucket where
the License
 Manager information is stored.</p>"
                }
            },
            "SnsTopicArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the Amazon SNS topic used
for License Manager alerts.</p>"
                }
            },
            "OrganizationConfiguration": {
                "target": "com.amazonaws.licensemanager#OrganizationConfiguration",
                "traits": {
                    "smithy.api#documentation": "<p>Enables integration with Organizations for cross-account
discovery.</p>"
```

```
                }
            },
            "EnableCrossAccountsDiscovery": {
                "target": "com.amazonaws.licensemanager#BoxBoolean",
                "traits": {
                    "smithy.api#documentation": "<p>Activates cross-account discovery.</p>"

        }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#UpdateServiceSettingsResponse": {
        "type": "structure",
        "members": {},
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#UsageOperation": {
        "type": "string",
        "traits": {
            "smithy.api#length": {
                "min": 0,
                "max": 50
            }
        }
    },
    "com.amazonaws.licensemanager#ValidationException": {
        "type": "structure",
        "members": {
            "Message": {
                "target": "com.amazonaws.licensemanager#Message"
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>The provided input is not valid. Try your request again.</p>",

     "smithy.api#error": "client",
            "smithy.api#httpError": 400
        }
    }
  }
}
// Code generated by smithy-go-codegen DO NOT EDIT.
```

```
package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Deletes the specified license.
func (c *Client) DeleteLicense(ctx context.Context, params *DeleteLicenseInput, optFns ...func(*Options))
(*DeleteLicenseOutput, error) {
 if params == nil {
  params = &DeleteLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "DeleteLicense", params, optFns,
c.addOperationDeleteLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*DeleteLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type DeleteLicenseInput struct {

 // Amazon Resource Name (ARN) of the license.
 //
 // This member is required.
 LicenseArn *string

 // Current version of the license.
 //
 // This member is required.
 SourceVersion
 *string

 noSmithyDocumentSerde
}

type DeleteLicenseOutput struct {

 // Date when the license is deleted.
```

```
 DeletionDate *string

 // License status.
 Status types.LicenseDeletionStatus

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationDeleteLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpDeleteLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpDeleteLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "DeleteLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err !=
nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
```

```
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addOpDeleteLicenseValidationMiddleware(stack);
 err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opDeleteLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opDeleteLicense(region string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
```

```
 ServiceID:     ServiceID,
 OperationName: "DeleteLicense",
 }
}
```

1.331 govaluate 3.0.0+incompatible

1.331.1 Available under license :

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vjeantet (regex support)
iasci (ternary operator)
oxtoacart (parameter structures, deferred parameter retrieval)
wmiller848 (bitwise operators)
prashantv (optimization of bools)
dpaolella (exposure of variables used in an expression)
benpaxton (fix for missing type checks during literal elide process)
abrander (panic-finding testing tool)
xfennec (fix for dates being parsed in the current Location)
bgaifullin (lifting restriction on complex/struct types)

1.332 cachecontrol 0.12.11

1.332.1 Available under license :

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1.333 pysocks 1.6.8

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1.334 colorama 0.3.1

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1.335 etree 1.3.0

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1.336 python-dateutil 2.7.3

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1.337 ini 1.67.0

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1.338 pycparser 2.18

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pycparser -- A C parser in Python

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1.339 goautoneg 0.0.0-20191010083416-a7dc8b61c822

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1.340 intern 1.0.0

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1.341 prometheus-client-model 0.6.0

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1.342 smart 1.4.1

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1.346 trilead-ssh 1.0.0-build221

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1.348 prometheus-client 1.19.0

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1.349 goterm 0.0.0-20190703233501-fc88cf888a3f

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1.350 go.uber.org/atomi 1.11.0

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1.351 pkg-sftp 1.13.4

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1.352 go.mongodb.org-mongo-driver 1.16.1

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1.354 pyasn1 0.4.4

1.354.1 Available under license :

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1.355 perks 1.0.1

1.355.1 Available under license :

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1.356 easyjson 0.7.7

1.356.1 Available under license :

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SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

1.357 aws-sdk-go 1.51.1

1.357.1 Available under license :

{
"version": "2.0",
"service": " With License Manager, you can create user-based subscriptions to utilize licensed software with a per user subscription fee on Amazon EC2 instances. ",

```
 "operations": {
   "AssociateUser": "<p>Associates the user to an EC2 instance to utilize user-based subscriptions.</p> <note>
<p>Your estimated bill for charges on the number of users and related costs will take 48 hours to appear for billing
periods that haven't closed (marked as <b>Pending</b> billing status) in Amazon Web Services Billing. For more
information, see <a href=\"https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/invoice.html\">Viewing
your monthly charges</a> in the <i>Amazon Web Services Billing User Guide</i>.</p> </note>",
   "DeregisterIdentityProvider": "<p>Deregisters the identity provider from providing user-based
subscriptions.</p>",
   "DisassociateUser": "<p>Disassociates the user from an EC2 instance providing user-based subscriptions.</p>",
   "ListIdentityProviders":
 "<p>Lists the identity providers for user-based subscriptions.</p>",
   "ListInstances": "<p>Lists the EC2 instances providing user-based subscriptions.</p>",
   "ListProductSubscriptions": "<p>Lists the user-based subscription products available from an identity
provider.</p>",
   "ListUserAssociations": "<p>Lists user associations for an identity provider.</p>",
   "RegisterIdentityProvider": "<p>Registers an identity provider for user-based subscriptions.</p>",
   "StartProductSubscription": "<p>Starts a product subscription for a user with the specified identity provider.</p>
<note> <p>Your estimated bill for charges on the number of users and related costs will take 48 hours to appear for
billing periods that haven't closed (marked as <b>Pending</b> billing status) in Amazon Web Services Billing. For
more information, see <a
href=\"https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/invoice.html\">Viewing your monthly
charges</a> in the <i>Amazon Web
 Services Billing User Guide</i>.</p> </note>",
   "StopProductSubscription": "<p>Stops a product subscription for a user with the specified identity provider.</p>",
   "UpdateIdentityProviderSettings": "<p>Updates additional product configuration settings for the registered
identity provider.</p>"
 },
 "shapes": {
   "AccessDeniedException": {
     "base": "<p>You don't have sufficient access to perform this action.</p>",
     "refs": {
     }
   },
   "ActiveDirectoryIdentityProvider": {
     "base": "<p>Details about an Active Directory identity provider.</p>",
     "refs": {
       "IdentityProvider$ActiveDirectoryIdentityProvider": "<p>An object that details an Active Directory identity
provider.</p>"
     }
   },
   "AssociateUserRequest": {
     "base": null,
     "refs": {
     }
   },
   "AssociateUserResponse": {
     "base": null,
     "refs": {
```

```
    }
  },
  "BoxInteger": {
    "base": null,
    "refs": {
      "ListIdentityProvidersRequest$MaxResults":
 "<p>Maximum number of results to return in a single call.</p>",
      "ListInstancesRequest$MaxResults": "<p>Maximum number of results to return in a single call.</p>",
      "ListProductSubscriptionsRequest$MaxResults": "<p>Maximum number of results to return in a single
call.</p>",
      "ListUserAssociationsRequest$MaxResults": "<p>Maximum number of results to return in a single call.</p>"
    }
  },
  "ConflictException": {
    "base": "<p>The request couldn't be completed because it conflicted with the current state of the resource.</p>",
    "refs": {
    }
  },
  "DeregisterIdentityProviderRequest": {
    "base": null,
    "refs": {
    }
  },
  "DeregisterIdentityProviderResponse": {
    "base": null,
    "refs": {
    }
  },
  "DisassociateUserRequest": {
    "base": null,
    "refs": {
    }
  },
  "DisassociateUserResponse": {
    "base": null,
    "refs": {
    }
  },
  "Filter": {
    "base": "<p>A
 filter name and value pair that is used to return more specific results from a describe operation. Filters can be used
to match a set of resources by specific criteria, such as tags, attributes, or IDs.</p>",
    "refs": {
      "FilterList$member": null
    }
  },
  "FilterList": {
    "base": null,
```

```
    "refs": {
      "ListInstancesRequest$Filters": "<p>An array of structures that you can use to filter the results to those that match one or more sets of key-value pairs that you specify.</p>",
      "ListProductSubscriptionsRequest$Filters": "<p>An array of structures that you can use to filter the results to those that match one or more sets of key-value pairs that you specify.</p>",
      "ListUserAssociationsRequest$Filters": "<p>An array of structures that you can use to filter the results to those that match one or more sets of key-value pairs that you specify.</p>"
    }
  },
  "IdentityProvider": {
    "base": "<p>Details about an identity provider.</p>",
    "refs": {
      "AssociateUserRequest$IdentityProvider": "<p>The identity provider of the user.</p>",
      "DeregisterIdentityProviderRequest$IdentityProvider": "<p>An object that specifies details for the identity provider.</p>",
      "DisassociateUserRequest$IdentityProvider": "<p>An object that specifies details for the identity provider.</p>",
      "IdentityProviderSummary$IdentityProvider": "<p>An object that specifies details for the identity provider.</p>",
      "InstanceUserSummary$IdentityProvider": "<p>An object that specifies details for the identity provider.</p>",
      "ListProductSubscriptionsRequest$IdentityProvider": "<p>An object that specifies details for the identity provider.</p>",
      "ListUserAssociationsRequest$IdentityProvider": "<p>An object that specifies details for the identity provider.</p>",
      "ProductUserSummary$IdentityProvider": "<p>An object that specifies details for the identity provider.</p>",
      "RegisterIdentityProviderRequest$IdentityProvider":
 "<p>An object that specifies details for the identity provider.</p>",
      "StartProductSubscriptionRequest$IdentityProvider": "<p>An object that specifies details for the identity provider.</p>",
      "StopProductSubscriptionRequest$IdentityProvider": "<p>An object that specifies details for the identity provider.</p>",
      "UpdateIdentityProviderSettingsRequest$IdentityProvider": null
    }
  },
  "IdentityProviderSummary": {
    "base": "<p>Describes an identity provider.</p>",
    "refs": {
      "DeregisterIdentityProviderResponse$IdentityProviderSummary": "<p>Metadata that describes the results of an identity provider operation.</p>",
      "IdentityProviderSummaryList$member": null,
      "RegisterIdentityProviderResponse$IdentityProviderSummary": "<p>Metadata that describes the results of an identity provider operation.</p>",
      "UpdateIdentityProviderSettingsResponse$IdentityProviderSummary": null

    }
  },
  "IdentityProviderSummaryList": {
    "base": null,
```

```
    "refs": {
      "ListIdentityProvidersResponse$IdentityProviderSummaries": "<p>Metadata that describes the list identity providers operation.</p>"
    }
  },
  "InstanceSummary": {
    "base": "<p>Describes an EC2 instance providing user-based subscriptions.</p>",
    "refs": {
      "InstanceSummaryList$member": null
    }
  },
  "InstanceSummaryList": {
    "base": null,
    "refs": {
      "ListInstancesResponse$InstanceSummaries": "<p>Metadata that describes the list instances operation.</p>"
    }
  },
  "InstanceUserSummary": {
    "base": "<p>Describes users of an EC2 instance providing user-based subscriptions.</p>",
    "refs": {
      "AssociateUserResponse$InstanceUserSummary": "<p>Metadata that describes the associate user operation.</p>",
      "DisassociateUserResponse$InstanceUserSummary": "<p>Metadata that describes the associate user operation.</p>",

    "InstanceUserSummaryList$member": null
    }
  },
  "InstanceUserSummaryList": {
    "base": null,
    "refs": {
      "ListUserAssociationsResponse$InstanceUserSummaries": "<p>Metadata that describes the list user association operation.</p>"
    }
  },
  "InternalServerException": {
    "base": "<p>An exception occurred with the service.</p>",
    "refs": {
    }
  },
  "ListIdentityProvidersRequest": {
    "base": null,
    "refs": {
    }
  },
  "ListIdentityProvidersResponse": {
    "base": null,
    "refs": {
```

```
    }
  },
  "ListInstancesRequest": {
    "base": null,
    "refs": {
    }
  },
  "ListInstancesResponse": {
    "base": null,
    "refs": {
    }
  },
  "ListProductSubscriptionsRequest": {
    "base": null,
    "refs": {
    }
  },
  "ListProductSubscriptionsResponse": {
    "base": null,
    "refs": {
    }
  },
  "ListUserAssociationsRequest": {
    "base": null,
    "refs": {
     }
  },
  "ListUserAssociationsResponse": {
    "base": null,
    "refs": {
    }
  },
  "ProductUserSummary": {
    "base": "<p>The summary of the user-based subscription products for a user.</p>",
    "refs": {
      "ProductUserSummaryList$member": null,
      "StartProductSubscriptionResponse$ProductUserSummary": "<p>Metadata that describes the start product subscription operation.</p>",
      "StopProductSubscriptionResponse$ProductUserSummary": "<p>Metadata that describes the start product subscription operation.</p>"
    }
  },
  "ProductUserSummaryList": {
    "base": null,
    "refs": {
      "ListProductSubscriptionsResponse$ProductUserSummaries": "<p>Metadata that describes the list product subscriptions operation.</p>"
    }
```

```
  },
  "RegisterIdentityProviderRequest": {
    "base": null,
    "refs": {
    }
  },
  "RegisterIdentityProviderResponse": {
    "base": null,
    "refs": {
    }
  },
  "ResourceNotFoundException":
{
    "base": "<p>The resource couldn't be found.</p>",
    "refs": {
    }
  },
  "SecurityGroup": {
    "base": null,
    "refs": {
      "Settings$SecurityGroupId": "<p>A security group ID that allows inbound TCP port 1688 communication
between resources in your VPC and the VPC endpoint for activation servers.</p>",
      "UpdateSettings$SecurityGroupId": "<p>A security group ID that allows inbound TCP port 1688
communication between resources in your VPC and the VPC endpoints for activation servers.</p>"
    }
  },
  "ServiceQuotaExceededException": {
    "base": "<p>The request failed because a service quota is exceeded.</p>",
    "refs": {
    }
  },
  "Settings": {
    "base": "<p>The registered identity providers product related configuration settings such as the subnets to
provision VPC endpoints, and the security group ID that is associated with the VPC endpoints. The security group
should permit inbound TCP port 1688 communication
 from resources in the VPC.</p>",
    "refs": {
      "IdentityProviderSummary$Settings": "<p>An object that details the registered identity providers product
related configuration settings such as the subnets to provision VPC endpoints.</p>",
      "RegisterIdentityProviderRequest$Settings": "<p>The registered identity providers product related
configuration settings such as the subnets to provision VPC endpoints.</p>"
    }
  },
  "SettingsSubnetsList": {
    "base": null,
    "refs": {
      "Settings$Subnets": "<p>The subnets defined for the registered identity provider.</p>"
    }
```

```
  },
  "StartProductSubscriptionRequest": {
    "base": null,
    "refs": {
    }
  },
  "StartProductSubscriptionResponse": {
    "base": null,
    "refs": {
    }
  },
  "StopProductSubscriptionRequest": {
    "base": null,
    "refs": {
    }
  },
  "StopProductSubscriptionResponse": {
    "base": null,
    "refs": {
    }
  },
  "String":
 {
    "base": null,
    "refs": {
      "AccessDeniedException$message": null,
      "ActiveDirectoryIdentityProvider$DirectoryId": "<p>The directory ID for an Active Directory identity
provider.</p>",
      "AssociateUserRequest$Domain": "<p>The domain name of the user.</p>",
      "AssociateUserRequest$InstanceId": "<p>The ID of the EC2 instance, which provides user-based
subscriptions.</p>",
      "AssociateUserRequest$Username": "<p>The user name from the identity provider for the user.</p>",
      "ConflictException$message": null,
      "DeregisterIdentityProviderRequest$Product": "<p>The name of the user-based subscription product.</p>",
      "DisassociateUserRequest$Domain": "<p>The domain name of the user.</p>",
      "DisassociateUserRequest$InstanceId": "<p>The ID of the EC2 instance, which provides user-based
subscriptions.</p>",
      "DisassociateUserRequest$Username": "<p>The user name from the identity provider for the user.</p>",

   "Filter$Attribute": "<p>The name of an attribute to use as a filter.</p>",
      "Filter$Operation": "<p>The type of search (For example, eq, geq, leq)</p>",
      "Filter$Value": "<p>Value of the filter.</p>",
      "IdentityProviderSummary$FailureMessage": "<p>The failure message associated with an identity
provider.</p>",
      "IdentityProviderSummary$Product": "<p>The name of the user-based subscription product.</p>",
      "IdentityProviderSummary$Status": "<p>The status of an identity provider.</p>",
      "InstanceSummary$InstanceId": "<p>The ID of the EC2 instance, which provides user-based
subscriptions.</p>",
```

```
    "InstanceSummary$LastStatusCheckDate": "<p>The date of the last status check.</p>",
    "InstanceSummary$Status": "<p>The status of an EC2 instance resource.</p>",
    "InstanceSummary$StatusMessage": "<p>The status message for an EC2 instance.</p>",
    "InstanceUserSummary$AssociationDate": "<p>The date a user was associated with an
 EC2 instance.</p>",
    "InstanceUserSummary$DisassociationDate": "<p>The date a user was disassociated from an EC2
instance.</p>",
    "InstanceUserSummary$Domain": "<p>The domain name of the user.</p>",
    "InstanceUserSummary$InstanceId": "<p>The ID of the EC2 instance, which provides user-based
subscriptions.</p>",
    "InstanceUserSummary$Status": "<p>The status of a user associated with an EC2 instance.</p>",
    "InstanceUserSummary$StatusMessage": "<p>The status message for users of an EC2 instance.</p>",
    "InstanceUserSummary$Username": "<p>The user name from the identity provider for the user.</p>",
    "InternalServerException$message": null,
    "ListIdentityProvidersRequest$NextToken": "<p>Token for the next set of results.</p>",
    "ListIdentityProvidersResponse$NextToken": "<p>Token for the next set of results.</p>",
    "ListInstancesRequest$NextToken": "<p>Token for the next set of results.</p>",
    "ListInstancesResponse$NextToken":
 "<p>Token for the next set of results.</p>",
    "ListProductSubscriptionsRequest$NextToken": "<p>Token for the next set of results.</p>",
    "ListProductSubscriptionsRequest$Product": "<p>The name of the user-based subscription product.</p>",
    "ListProductSubscriptionsResponse$NextToken": "<p>Token for the next set of results.</p>",
    "ListUserAssociationsRequest$InstanceId": "<p>The ID of the EC2 instance, which provides user-based
subscriptions.</p>",
    "ListUserAssociationsRequest$NextToken": "<p>Token for the next set of results.</p>",
    "ListUserAssociationsResponse$NextToken": "<p>Token for the next set of results.</p>",
    "ProductUserSummary$Domain": "<p>The domain name of the user.</p>",
    "ProductUserSummary$Product": "<p>The name of the user-based subscription product.</p>",
    "ProductUserSummary$Status": "<p>The status of a product for a user.</p>",
    "ProductUserSummary$StatusMessage": "<p>The status
 message for a product for a user.</p>",
    "ProductUserSummary$SubscriptionEndDate": "<p>The end date of a subscription.</p>",
    "ProductUserSummary$SubscriptionStartDate": "<p>The start date of a subscription.</p>",
    "ProductUserSummary$Username": "<p>The user name from the identity provider of the user.</p>",
    "RegisterIdentityProviderRequest$Product": "<p>The name of the user-based subscription product.</p>",
    "ResourceNotFoundException$message": null,
    "ServiceQuotaExceededException$message": null,
    "StartProductSubscriptionRequest$Domain": "<p>The domain name of the user.</p>",
    "StartProductSubscriptionRequest$Product": "<p>The name of the user-based subscription product.</p>",
    "StartProductSubscriptionRequest$Username": "<p>The user name from the identity provider of the user.</p>",
    "StopProductSubscriptionRequest$Domain": "<p>The domain name of the user.</p>",
    "StopProductSubscriptionRequest$Product":
 "<p>The name of the user-based subscription product.</p>",
    "StopProductSubscriptionRequest$Username": "<p>The user name from the identity provider for the
user.</p>",
    "StringList$member": null,
    "ThrottlingException$message": null,
    "UpdateIdentityProviderSettingsRequest$Product": "<p>The name of the user-based subscription
```

```
product.</p>",
      "ValidationException$message": null
    }
  },
  "StringList": {
    "base": null,
    "refs": {
      "InstanceSummary$Products": "<p>A list of provided user-based subscription products.</p>"
    }
  },
  "Subnet": {
    "base": null,
    "refs": {
      "SettingsSubnetsList$member": null,
      "Subnets$member": null
    }
  },
  "Subnets": {
    "base": null,
    "refs": {
      "UpdateSettings$AddSubnets": "<p>The ID of one or more subnets in which License Manager will create a VPC endpoint for products that require connectivity to activation servers.</p>",
      "UpdateSettings$RemoveSubnets":
 "<p>The ID of one or more subnets to remove.</p>"
    }
  },
  "ThrottlingException": {
    "base": "<p>The request was denied because of request throttling. Retry the request.</p>",
    "refs": {
    }
  },
  "UpdateIdentityProviderSettingsRequest": {
    "base": null,
    "refs": {
    }
  },
  "UpdateIdentityProviderSettingsResponse": {
    "base": null,
    "refs": {
    }
  },
  "UpdateSettings": {
    "base": "<p>Updates the registered identity providers product related configuration settings such as the subnets to provision VPC endpoints.</p>",
    "refs": {
      "UpdateIdentityProviderSettingsRequest$UpdateSettings": "<p>Updates the registered identity providers product related configuration settings. You can update any combination of settings in a single operation such as the:</p> <ul> <li> <p>Subnets which you want to add to provision VPC endpoints.</p> </li> <li> <p>Subnets
```

```
which you want to remove the VPC endpoints
 from.</p> </li> <li> <p>Security group ID which permits traffic to the VPC endpoints.</p> </li> </ul>"
    }
  },
  "ValidationException": {
    "base": "<p>A parameter is not valid.</p>",
    "refs": {
    }
  }
 }
}
{
  "version": "1.0",
  "parameters": {
     "Region": {
        "builtIn": "AWS::Region",
        "required": false,
        "documentation": "The AWS region used to dispatch the request.",
        "type": "String"
     },
     "UseDualStack": {
        "builtIn": "AWS::UseDualStack",
        "required": true,
        "default": false,
        "documentation": "When true, use the dual-stack endpoint. If the configured endpoint does not support dual-stack, dispatching the request MAY return an error.",
        "type": "Boolean"
     },
     "UseFIPS": {
        "builtIn": "AWS::UseFIPS",
        "required": true,
        "default": false,
        "documentation": "When true, send this request to the FIPS-compliant regional endpoint. If the configured endpoint does not have a FIPS compliant endpoint, dispatching the request will return an error.",
        "type": "Boolean"
     },
     "Endpoint": {

    "builtIn": "SDK::Endpoint",
        "required": false,
        "documentation": "Override the endpoint used to send this request",
        "type": "String"
     }
  },
  "rules": [
     {
        "conditions": [
           {
```

```
        "fn": "aws.partition",
        "argv": [
          {
            "ref": "Region"
          }
        ],
        "assign": "PartitionResult"
      }
    ],
    "type": "tree",
    "rules": [
      {
        "conditions": [
          {
            "fn": "isSet",
            "argv": [
              {
                "ref": "Endpoint"
              }
            ]
          },
          {
            "fn": "parseURL",

           "argv": [
              {
                "ref": "Endpoint"
              }
            ],
            "assign": "url"
          }
        ],
        "type": "tree",
        "rules": [
          {
            "conditions": [
              {
                "fn": "booleanEquals",
                "argv": [
                  {
                    "ref": "UseFIPS"
                  },
                  true
                ]
              }
            ],
            "error": "Invalid Configuration: FIPS and custom endpoint are not supported",
            "type": "error"
```

```
        },
        {
          "conditions": [],
          "type": "tree",
          "rules": [
            {
              "conditions": [
                {
                  "fn": "booleanEquals",
                  "argv": [
                    {
                      "ref": "UseDualStack"
                    },
                    true
                  ]
                }
              ],
              "error": "Invalid Configuration: Dualstack and custom endpoint are not supported",
              "type": "error"
            },

          {
              "conditions": [],
              "endpoint": {
                "url": {
                  "ref": "Endpoint"
                },
                "properties": {},
                "headers": {}
              },
              "type": "endpoint"
            }
          ]
        }
      ]
    },
    {
      "conditions": [
        {
          "fn": "booleanEquals",
          "argv": [
            {
              "ref": "UseFIPS"
            },
            true
          ]
```

```
},
            {
              "fn": "booleanEquals",
              "argv": [
                {
                  "ref": "UseDualStack"
                },
                true
              ]
            }
          ],
          "type": "tree",
          "rules": [
            {
              "conditions": [
                {
                  "fn": "booleanEquals",
                  "argv": [
                    true,
                    {
                      "fn": "getAttr",
                      "argv": [
                        {
                          "ref": "PartitionResult"

},
                          "supportsFIPS"
                        ]
                      }
                    ]
                  },
                  {
                    "fn": "booleanEquals",
                    "argv": [
                      true,
                      {
                        "fn": "getAttr",
                        "argv": [
                          {
                            "ref": "PartitionResult"
                          },
                          "supportsDualStack"
                        ]
                      }
                    ]
                  }
```

```
                ],
                    "type": "tree",
                    "rules": [
                        {
                            "conditions": [],
                            "endpoint": {
                                "url": "https://license-manager-user-subscriptions-
fips.{Region}.{PartitionResult#dualStackDnsSuffix}",
                                "properties": {},
                                "headers": {}
                            },
                            "type": "endpoint"
                        }
                    ]
                },
                {
                    "conditions": [],
                    "error": "FIPS and DualStack are enabled, but this partition does not support one or both",
                    "type": "error"
                }
            ]
        },

    {
            "conditions": [
                {
                    "fn": "booleanEquals",
                    "argv": [
                        {
                            "ref": "UseFIPS"
                        },
                        true
                    ]
                }
            ],
            "type": "tree",
            "rules": [
                {
                    "conditions": [
                        {
                            "fn": "booleanEquals",
                            "argv": [
                                true,
                                {
                                    "fn": "getAttr",
                                    "argv": [
                                        {
                                            "ref": "PartitionResult"
```

```
                                },
                                "supportsFIPS"
                            ]
                        }
                    ]
                }
            ],
            "type": "tree",
            "rules": [
                {
                    "conditions": [],
                    "endpoint": {
                        "url": "https://license-manager-user-subscriptions-
fips.{Region}.{PartitionResult#dnsSuffix}",
                        "properties": {},
                        "headers": {}
                    },
                    "type": "endpoint"
                }
            ]
        },
        {

    "conditions": [],
            "error": "FIPS is enabled but this partition does not support FIPS",
            "type": "error"
        }
    ]
    },
    {
        "conditions": [
            {
                "fn": "booleanEquals",
                "argv": [
                    {
                        "ref": "UseDualStack"
                    },
                    true
                ]
            }
        ],
        "type": "tree",
        "rules": [
            {
                "conditions": [
                    {
                        "fn": "booleanEquals",
                        "argv": [
```

```
                    true,

            {
                        "fn": "getAttr",
                        "argv": [
                            {
                                "ref": "PartitionResult"
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                    "properties": {},

        "headers": {}
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                "type": "endpoint"
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        ]
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        "error": "DualStack is enabled but this partition does not support DualStack",
        "type": "error"
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    "headers": {}
  },
  "type": "endpoint"
}
  ]
 }
]
```

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}
```

AWS SDK for Go

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     "output_token": "NextToken",
     "limit_key": "MaxResults",
     "result_key": "Subscriptions"
   }
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   "jsonVersion":"1.1",
   "protocol":"json",
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   "serviceId":"License Manager",
   "signatureVersion":"v4",
   "targetPrefix":"AWSLicenseManager",
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    {"shape":"AccessDeniedException"},
    {"shape":"RateLimitExceededException"}
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    {"shape":"RateLimitExceededException"}
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   {"shape":"ResourceNotFoundException"},
   {"shape":"ResourceLimitExceededException"}
  ]
 },
 "UpdateLicenseSpecificationsForResource":{
  "name":"UpdateLicenseSpecificationsForResource",
  "http":{
   "method":"POST",
   "requestUri":"/"

},
  "input":{"shape":"UpdateLicenseSpecificationsForResourceRequest"},
  "output":{"shape":"UpdateLicenseSpecificationsForResourceResponse"},
  "errors":[
   {"shape":"InvalidParameterValueException"},
   {"shape":"InvalidResourceStateException"},
   {"shape":"LicenseUsageException"},
   {"shape":"ServerInternalException"},
   {"shape":"AuthorizationException"},
   {"shape":"AccessDeniedException"},
   {"shape":"RateLimitExceededException"}
  ]
 },
 "UpdateServiceSettings":{
  "name":"UpdateServiceSettings",
  "http":{
   "method":"POST",
   "requestUri":"/"
  },
  "input":{"shape":"UpdateServiceSettingsRequest"},
  "output":{"shape":"UpdateServiceSettingsResponse"},
```

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    "errors":[
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      {"shape":"ServerInternalException"},
      {"shape":"AuthorizationException"},
      {"shape":"AccessDeniedException"},
      {"shape":"RateLimitExceededException"}
     ]
   }
  },
 "shapes":{
   "AcceptGrantRequest":{
     "type":"structure",
     "required":["GrantArn"],
     "members":{
       "GrantArn":{"shape":"Arn"}
     }
   },
   "AcceptGrantResponse":{
     "type":"structure",
     "members":{
       "GrantArn":{"shape":"Arn"},
       "Status":{"shape":"GrantStatus"},
       "Version":{"shape":"String"}
     }
   },
   "AccessDeniedException":{
     "type":"structure",
     "members":{
       "Message":{"shape":"Message"}
     },
     "exception":true
   },
   "ActivationOverrideBehavior":{
     "type":"string",
     "enum":[
       "DISTRIBUTED_GRANTS_ONLY",
       "ALL_GRANTS_PERMITTED_BY_ISSUER"
     ]
   },
   "AllowedOperation":{
     "type":"string",
     "enum":[
       "CreateGrant",
       "CheckoutLicense",
       "CheckoutBorrowLicense",
       "CheckInLicense",
       "ExtendConsumptionLicense",
       "ListPurchasedLicenses",
```

```
      "CreateToken"
    ]
  },
  "AllowedOperationList":{
    "type":"list",
    "member":{"shape":"AllowedOperation"},
    "max":7,
    "min":1
  },
  "Arn":{
    "type":"string",
    "max":2048,
    "pattern":"^arn:aws(-(cn|us-gov|iso-b|iso-c|iso-d))?:[A-Za-z0-9][A-Za-z0-9_/.-]{0,62}:[A-Za-z0-9_/.-]{0,63}:[A-Za-z0-9_/.-]{0,63}:[A-Za-z0-9][A-Za-z0-9:_/+=,@.-]{0,1023}$"
  },
  "ArnList":{
    "type":"list",
    "member":{"shape":"Arn"}
  },
  "AuthorizationException":{
    "type":"structure",
    "members":{
      "Message":{"shape":"Message"}
    },
    "exception":true
  },
  "AutomatedDiscoveryInformation":{
    "type":"structure",
    "members":{
      "LastRunTime":{"shape":"DateTime"}
    }
  },
  "Boolean":{"type":"boolean"},
  "BorrowConfiguration":{
    "type":"structure",
    "required":[
      "AllowEarlyCheckIn",
      "MaxTimeToLiveInMinutes"
    ],
    "members":{
      "AllowEarlyCheckIn":{"shape":"BoxBoolean"},
      "MaxTimeToLiveInMinutes":{"shape":"BoxInteger"}
    }
  },
  "BoxBoolean":{"type":"boolean"},
  "BoxInteger":{"type":"integer"},
  "BoxLong":{"type":"long"},
  "CheckInLicenseRequest":{
```

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  "type":"structure",
  "required":["LicenseConsumptionToken"],
  "members":{
    "LicenseConsumptionToken":{"shape":"String"},
    "Beneficiary":{"shape":"String"}
  }
},
"CheckInLicenseResponse":{
  "type":"structure",
  "members":{
  }
},
"CheckoutBorrowLicenseRequest":{
  "type":"structure",
  "required":[
    "LicenseArn",
    "Entitlements",
    "DigitalSignatureMethod",
    "ClientToken"
  ],
  "members":{
    "LicenseArn":{"shape":"Arn"},
    "Entitlements":{"shape":"EntitlementDataList"},
    "DigitalSignatureMethod":{"shape":"DigitalSignatureMethod"},
    "NodeId":{"shape":"String"},
    "CheckoutMetadata":{"shape":"MetadataList"},
    "ClientToken":{"shape":"ClientToken"}
  }
},

"CheckoutBorrowLicenseResponse":{
  "type":"structure",
  "members":{
    "LicenseArn":{"shape":"Arn"},
    "LicenseConsumptionToken":{"shape":"String"},
    "EntitlementsAllowed":{"shape":"EntitlementDataList"},
    "NodeId":{"shape":"String"},
    "SignedToken":{"shape":"SignedToken"},
    "IssuedAt":{"shape":"ISO8601DateTime"},
    "Expiration":{"shape":"ISO8601DateTime"},
    "CheckoutMetadata":{"shape":"MetadataList"}
  }
},
"CheckoutLicenseRequest":{
  "type":"structure",
  "required":[
    "ProductSKU",
    "CheckoutType",
```

```
    "KeyFingerprint",
    "Entitlements",
    "ClientToken"
   ],
   "members":{
    "ProductSKU":{"shape":"String"},
    "CheckoutType":{"shape":"CheckoutType"},
    "KeyFingerprint":{"shape":"String"},
    "Entitlements":{"shape":"EntitlementDataList"},
    "ClientToken":{"shape":"ClientToken"},
    "Beneficiary":{"shape":"String"},
    "NodeId":{"shape":"String"}
   }
  },
  "CheckoutLicenseResponse":{
   "type":"structure",
   "members":{
    "CheckoutType":{"shape":"CheckoutType"},
    "LicenseConsumptionToken":{"shape":"String"},
    "EntitlementsAllowed":{"shape":"EntitlementDataList"},
    "SignedToken":{"shape":"SignedToken"},
    "NodeId":{"shape":"String"},
    "IssuedAt":{"shape":"ISO8601DateTime"},
    "Expiration":{"shape":"ISO8601DateTime"},
    "LicenseArn":{"shape":"String"}
   }
  },
  "CheckoutType":{
   "type":"string",
   "enum":[
    "PROVISIONAL",
    "PERPETUAL"
   ]
  },
  "ClientRequestToken":{
   "type":"string",
   "max":36,
   "min":1
  },
  "ClientToken":{
   "type":"string",
   "max":2048,
   "pattern":"\\S+"
  },
  "ConflictException":{
   "type":"structure",
   "members":{
    "Message":{"shape":"Message"}
```

```
  },
  "exception":true
},
"ConsumedLicenseSummary":{
  "type":"structure",
   "members":{
    "ResourceType":{"shape":"ResourceType"},
    "ConsumedLicenses":{"shape":"BoxLong"}
  }
},
"ConsumedLicenseSummaryList":{
  "type":"list",
  "member":{"shape":"ConsumedLicenseSummary"}
},
"ConsumptionConfiguration":{
  "type":"structure",
  "members":{
    "RenewType":{"shape":"RenewType"},
    "ProvisionalConfiguration":{"shape":"ProvisionalConfiguration"},
    "BorrowConfiguration":{"shape":"BorrowConfiguration"}
  }
},
"CreateGrantRequest":{
  "type":"structure",
  "required":[
    "ClientToken",
    "GrantName",
    "LicenseArn",
    "Principals",
    "HomeRegion",
    "AllowedOperations"
  ],
  "members":{
    "ClientToken":{"shape":"ClientToken"},
    "GrantName":{"shape":"String"},
    "LicenseArn":{"shape":"Arn"},
    "Principals":{"shape":"PrincipalArnList"},
    "HomeRegion":{"shape":"String"},
    "AllowedOperations":{"shape":"AllowedOperationList"}
   }
},
"CreateGrantResponse":{
  "type":"structure",
  "members":{
    "GrantArn":{"shape":"Arn"},
    "Status":{"shape":"GrantStatus"},
    "Version":{"shape":"String"}
  }
```

```
},
"CreateGrantVersionRequest":{
  "type":"structure",
  "required":[
    "ClientToken",
    "GrantArn"
  ],
  "members":{
    "ClientToken":{"shape":"ClientToken"},
    "GrantArn":{"shape":"Arn"},
    "GrantName":{"shape":"String"},
    "AllowedOperations":{"shape":"AllowedOperationList"},
    "Status":{"shape":"GrantStatus"},
    "StatusReason":{"shape":"StatusReasonMessage"},
    "SourceVersion":{"shape":"String"},
    "Options":{"shape":"Options"}
  }
},
"CreateGrantVersionResponse":{
  "type":"structure",
  "members":{
    "GrantArn":{"shape":"Arn"},
    "Status":{"shape":"GrantStatus"},
    "Version":{"shape":"String"}
  }
},
"CreateLicenseConfigurationRequest":{
   "type":"structure",
  "required":[
    "Name",
    "LicenseCountingType"
  ],
  "members":{
    "Name":{"shape":"String"},
    "Description":{"shape":"String"},
    "LicenseCountingType":{"shape":"LicenseCountingType"},
    "LicenseCount":{"shape":"BoxLong"},
    "LicenseCountHardLimit":{"shape":"BoxBoolean"},
    "LicenseRules":{"shape":"StringList"},
    "Tags":{"shape":"TagList"},
    "DisassociateWhenNotFound":{"shape":"BoxBoolean"},
    "ProductInformationList":{"shape":"ProductInformationList"}
  }
},
"CreateLicenseConfigurationResponse":{
  "type":"structure",
  "members":{
    "LicenseConfigurationArn":{"shape":"String"}
```

```
  }
},
"CreateLicenseConversionTaskForResourceRequest":{
  "type":"structure",
  "required":[
    "ResourceArn",
    "SourceLicenseContext",
    "DestinationLicenseContext"
  ],
  "members":{
    "ResourceArn":{"shape":"Arn"},
     "SourceLicenseContext":{"shape":"LicenseConversionContext"},
    "DestinationLicenseContext":{"shape":"LicenseConversionContext"}
  }
},
"CreateLicenseConversionTaskForResourceResponse":{
  "type":"structure",
  "members":{
    "LicenseConversionTaskId":{"shape":"LicenseConversionTaskId"}
  }
},
"CreateLicenseManagerReportGeneratorRequest":{
  "type":"structure",
  "required":[
    "ReportGeneratorName",
    "Type",
    "ReportContext",
    "ReportFrequency",
    "ClientToken"
  ],
  "members":{
    "ReportGeneratorName":{"shape":"ReportGeneratorName"},
    "Type":{"shape":"ReportTypeList"},
    "ReportContext":{"shape":"ReportContext"},
    "ReportFrequency":{"shape":"ReportFrequency"},
    "ClientToken":{"shape":"ClientRequestToken"},
    "Description":{"shape":"String"},
    "Tags":{"shape":"TagList"}
  }
},
"CreateLicenseManagerReportGeneratorResponse":{
   "type":"structure",
  "members":{
    "LicenseManagerReportGeneratorArn":{"shape":"String"}
  }
},
"CreateLicenseRequest":{
  "type":"structure",
```

```
    "required":[
      "LicenseName",
      "ProductName",
      "ProductSKU",
      "Issuer",
      "HomeRegion",
      "Validity",
      "Entitlements",
      "Beneficiary",
      "ConsumptionConfiguration",
      "ClientToken"
    ],
    "members":{
      "LicenseName":{"shape":"String"},
      "ProductName":{"shape":"String"},
      "ProductSKU":{"shape":"String"},
      "Issuer":{"shape":"Issuer"},
      "HomeRegion":{"shape":"String"},
      "Validity":{"shape":"DatetimeRange"},
      "Entitlements":{"shape":"EntitlementList"},
      "Beneficiary":{"shape":"String"},
      "ConsumptionConfiguration":{"shape":"ConsumptionConfiguration"},
      "LicenseMetadata":{"shape":"MetadataList"},
      "ClientToken":{"shape":"ClientToken"}

  }
   },
   "CreateLicenseResponse":{
    "type":"structure",
    "members":{
      "LicenseArn":{"shape":"Arn"},
      "Status":{"shape":"LicenseStatus"},
      "Version":{"shape":"String"}
    }
   },
   "CreateLicenseVersionRequest":{
    "type":"structure",
    "required":[
      "LicenseArn",
      "LicenseName",
      "ProductName",
      "Issuer",
      "HomeRegion",
      "Validity",
      "Entitlements",
      "ConsumptionConfiguration",
      "Status",
      "ClientToken"
```

```
  ],
  "members":{
    "LicenseArn":{"shape":"Arn"},
    "LicenseName":{"shape":"String"},
    "ProductName":{"shape":"String"},
    "Issuer":{"shape":"Issuer"},
    "HomeRegion":{"shape":"String"},
    "Validity":{"shape":"DatetimeRange"},
    "LicenseMetadata":{"shape":"MetadataList"},
    "Entitlements":{"shape":"EntitlementList"},
    "ConsumptionConfiguration":{"shape":"ConsumptionConfiguration"},
    "Status":{"shape":"LicenseStatus"},
     "ClientToken":{"shape":"ClientToken"},
    "SourceVersion":{"shape":"String"}
  }
},
"CreateLicenseVersionResponse":{
  "type":"structure",
  "members":{
    "LicenseArn":{"shape":"Arn"},
    "Version":{"shape":"String"},
    "Status":{"shape":"LicenseStatus"}
  }
},
"CreateTokenRequest":{
  "type":"structure",
  "required":[
    "LicenseArn",
    "ClientToken"
  ],
  "members":{
    "LicenseArn":{"shape":"Arn"},
    "RoleArns":{"shape":"ArnList"},
    "ExpirationInDays":{"shape":"Integer"},
    "TokenProperties":{"shape":"MaxSize3StringList"},
    "ClientToken":{"shape":"ClientToken"}
  }
},
"CreateTokenResponse":{
  "type":"structure",
  "members":{
    "TokenId":{"shape":"String"},
    "TokenType":{"shape":"TokenType"},
    "Token":{"shape":"TokenString"}
  }
},
"DateTime":{"type":"timestamp"},
"DatetimeRange":{
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"type":"structure",
  "required":["Begin"],
  "members":{
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    "End":{"shape":"ISO8601DateTime"}
  }
 },
 "DeleteGrantRequest":{
  "type":"structure",
  "required":[
    "GrantArn",
    "Version"
  ],
  "members":{
    "GrantArn":{"shape":"Arn"},
    "StatusReason":{"shape":"StatusReasonMessage"},
    "Version":{"shape":"String"}
  }
 },
 "DeleteGrantResponse":{
  "type":"structure",
  "members":{
    "GrantArn":{"shape":"Arn"},
    "Status":{"shape":"GrantStatus"},
    "Version":{"shape":"String"}
  }
 },
 "DeleteLicenseConfigurationRequest":{
  "type":"structure",
  "required":["LicenseConfigurationArn"],
  "members":{
    "LicenseConfigurationArn":{"shape":"String"}
  }
 },
 "DeleteLicenseConfigurationResponse":{
  "type":"structure",
  "members":{
  }
 },
 "DeleteLicenseManagerReportGeneratorRequest":{
   "type":"structure",
  "required":["LicenseManagerReportGeneratorArn"],
  "members":{
    "LicenseManagerReportGeneratorArn":{"shape":"String"}
  }
 },
 "DeleteLicenseManagerReportGeneratorResponse":{
```

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  "type":"structure",
  "members":{
  }
},
"DeleteLicenseRequest":{
  "type":"structure",
  "required":[
    "LicenseArn",
    "SourceVersion"
  ],
  "members":{
    "LicenseArn":{"shape":"Arn"},
    "SourceVersion":{"shape":"String"}
  }
},
"DeleteLicenseResponse":{
  "type":"structure",
  "members":{
    "Status":{"shape":"LicenseDeletionStatus"},
    "DeletionDate":{"shape":"ISO8601DateTime"}
  }
},
"DeleteTokenRequest":{
  "type":"structure",
  "required":["TokenId"],
  "members":{
    "TokenId":{"shape":"String"}
  }
},
"DeleteTokenResponse":{
  "type":"structure",
  "members":{
  }
},
"DigitalSignatureMethod":{

  "type":"string",
  "enum":["JWT_PS384"]
},
"Entitlement":{
  "type":"structure",
  "required":[
    "Name",
    "Unit"
  ],
  "members":{
    "Name":{"shape":"String"},
    "Value":{"shape":"String"},
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    "MaxCount":{"shape":"Long"},
    "Overage":{"shape":"BoxBoolean"},
    "Unit":{"shape":"EntitlementUnit"},
    "AllowCheckIn":{"shape":"BoxBoolean"}
   }
  },
  "EntitlementData":{
   "type":"structure",
   "required":[
    "Name",
    "Unit"
   ],
   "members":{
    "Name":{"shape":"String"},
    "Value":{"shape":"String"},
    "Unit":{"shape":"EntitlementDataUnit"}
   }
  },
  "EntitlementDataList":{
   "type":"list",
   "member":{"shape":"EntitlementData"}
  },
  "EntitlementDataUnit":{
   "type":"string",
   "enum":[
    "Count",
    "None",
    "Seconds",
    "Microseconds",
    "Milliseconds",
    "Bytes",
    "Kilobytes",

   "Megabytes",
    "Gigabytes",
    "Terabytes",
    "Bits",
    "Kilobits",
    "Megabits",
    "Gigabits",
    "Terabits",
    "Percent",
    "Bytes/Second",
    "Kilobytes/Second",
    "Megabytes/Second",
    "Gigabytes/Second",
    "Terabytes/Second",
    "Bits/Second",
```

```
      "Kilobits/Second",
      "Megabits/Second",
      "Gigabits/Second",
      "Terabits/Second",
      "Count/Second"
    ]
  },
  "EntitlementList":{
    "type":"list",
    "member":{"shape":"Entitlement"}
  },
  "EntitlementNotAllowedException":{
    "type":"structure",
    "members":{
      "Message":{"shape":"Message"}
    },
    "exception":true
  },
  "EntitlementUnit":{
    "type":"string",
    "enum":[
      "Count",
      "None",
      "Seconds",
      "Microseconds",
      "Milliseconds",
      "Bytes",
      "Kilobytes",
      "Megabytes",
      "Gigabytes",
      "Terabytes",

  "Bits",
      "Kilobits",
      "Megabits",
      "Gigabits",
      "Terabits",
      "Percent",
      "Bytes/Second",
      "Kilobytes/Second",
      "Megabytes/Second",
      "Gigabytes/Second",
      "Terabytes/Second",
      "Bits/Second",
      "Kilobits/Second",
      "Megabits/Second",
      "Gigabits/Second",
      "Terabits/Second",
```

```
    "Count/Second"
  ]
},
"EntitlementUsage":{
  "type":"structure",
  "required":[
    "Name",
    "ConsumedValue",
    "Unit"
  ],
  "members":{
    "Name":{"shape":"String"},
    "ConsumedValue":{"shape":"String"},
    "MaxCount":{"shape":"String"},
    "Unit":{"shape":"EntitlementDataUnit"}
  }
},
"EntitlementUsageList":{
  "type":"list",
  "member":{"shape":"EntitlementUsage"}
},
"ExtendLicenseConsumptionRequest":{
  "type":"structure",
  "required":["LicenseConsumptionToken"],
  "members":{
    "LicenseConsumptionToken":{"shape":"String"},
     "DryRun":{"shape":"Boolean"}
  }
},
"ExtendLicenseConsumptionResponse":{
  "type":"structure",
  "members":{
    "LicenseConsumptionToken":{"shape":"String"},
    "Expiration":{"shape":"ISO8601DateTime"}
  }
},
"FailedDependencyException":{
  "type":"structure",
  "members":{
    "Message":{"shape":"Message"},
    "ErrorCode":{"shape":"String"}
  },
  "exception":true
},
"Filter":{
  "type":"structure",
  "members":{
    "Name":{"shape":"FilterName"},
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    "Values":{"shape":"FilterValues"}
  }
},
"FilterLimitExceededException":{
  "type":"structure",
  "members":{
    "Message":{"shape":"Message"}
  },
  "exception":true
},
"FilterList":{
  "type":"list",
  "member":{"shape":"Filter"}
},
"FilterName":{"type":"string"},
"FilterValue":{"type":"string"},
"FilterValues":{
  "type":"list",
  "member":{"shape":"FilterValue"}
 },
"Filters":{
  "type":"list",
  "member":{"shape":"Filter"}
},
"GetAccessTokenRequest":{
  "type":"structure",
  "required":["Token"],
  "members":{
    "Token":{"shape":"TokenString"},
    "TokenProperties":{"shape":"MaxSize3StringList"}
  }
},
"GetAccessTokenResponse":{
  "type":"structure",
  "members":{
    "AccessToken":{"shape":"TokenString"}
  }
},
"GetGrantRequest":{
  "type":"structure",
  "required":["GrantArn"],
  "members":{
    "GrantArn":{"shape":"Arn"},
    "Version":{"shape":"String"}
  }
},
"GetGrantResponse":{
  "type":"structure",
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```
  "members":{
    "Grant":{"shape":"Grant"}
  }
},
"GetLicenseConfigurationRequest":{
  "type":"structure",
  "required":["LicenseConfigurationArn"],
  "members":{
    "LicenseConfigurationArn":{"shape":"String"}
  }
},
"GetLicenseConfigurationResponse":{
   "type":"structure",
  "members":{
    "LicenseConfigurationId":{"shape":"String"},
    "LicenseConfigurationArn":{"shape":"String"},
    "Name":{"shape":"String"},
    "Description":{"shape":"String"},
    "LicenseCountingType":{"shape":"LicenseCountingType"},
    "LicenseRules":{"shape":"StringList"},
    "LicenseCount":{"shape":"BoxLong"},
    "LicenseCountHardLimit":{"shape":"BoxBoolean"},
    "ConsumedLicenses":{"shape":"BoxLong"},
    "Status":{"shape":"String"},
    "OwnerAccountId":{"shape":"String"},
    "ConsumedLicenseSummaryList":{"shape":"ConsumedLicenseSummaryList"},
    "ManagedResourceSummaryList":{"shape":"ManagedResourceSummaryList"},
    "Tags":{"shape":"TagList"},
    "ProductInformationList":{"shape":"ProductInformationList"},
    "AutomatedDiscoveryInformation":{"shape":"AutomatedDiscoveryInformation"},
    "DisassociateWhenNotFound":{"shape":"BoxBoolean"}
  }
},
"GetLicenseConversionTaskRequest":{
   "type":"structure",
  "required":["LicenseConversionTaskId"],
  "members":{
    "LicenseConversionTaskId":{"shape":"LicenseConversionTaskId"}
  }
},
"GetLicenseConversionTaskResponse":{
  "type":"structure",
  "members":{
    "LicenseConversionTaskId":{"shape":"LicenseConversionTaskId"},
    "ResourceArn":{"shape":"String"},
    "SourceLicenseContext":{"shape":"LicenseConversionContext"},
    "DestinationLicenseContext":{"shape":"LicenseConversionContext"},
    "StatusMessage":{"shape":"String"},
```

```
    "Status":{"shape":"LicenseConversionTaskStatus"},
    "StartTime":{"shape":"DateTime"},
    "LicenseConversionTime":{"shape":"DateTime"},
    "EndTime":{"shape":"DateTime"}
   }
  },
  "GetLicenseManagerReportGeneratorRequest":{
   "type":"structure",
   "required":["LicenseManagerReportGeneratorArn"],
   "members":{
    "LicenseManagerReportGeneratorArn":{"shape":"String"}
   }
  },
  "GetLicenseManagerReportGeneratorResponse":{
   "type":"structure",
   "members":{
    "ReportGenerator":{"shape":"ReportGenerator"}
   }
  },
  "GetLicenseRequest":{
   "type":"structure",
   "required":["LicenseArn"],
   "members":{
    "LicenseArn":{"shape":"Arn"},
    "Version":{"shape":"String"}
   }
  },
  "GetLicenseResponse":{
   "type":"structure",
   "members":{
    "License":{"shape":"License"}
   }
  },
  "GetLicenseUsageRequest":{
   "type":"structure",
   "required":["LicenseArn"],
   "members":{
    "LicenseArn":{"shape":"Arn"}
   }
  },
  "GetLicenseUsageResponse":{
   "type":"structure",
   "members":{
    "LicenseUsage":{"shape":"LicenseUsage"}
   }
  },
  "GetServiceSettingsRequest":{
   "type":"structure",
```

```
  "members":{
  }
},
"GetServiceSettingsResponse":{
  "type":"structure",
  "members":{
    "S3BucketArn":{"shape":"String"},
     "SnsTopicArn":{"shape":"String"},
    "OrganizationConfiguration":{"shape":"OrganizationConfiguration"},
    "EnableCrossAccountsDiscovery":{"shape":"BoxBoolean"},
    "LicenseManagerResourceShareArn":{"shape":"String"}
  }
},
"Grant":{
  "type":"structure",
  "required":[
    "GrantArn",
    "GrantName",
    "ParentArn",
    "LicenseArn",
    "GranteePrincipalArn",
    "HomeRegion",
    "GrantStatus",
    "Version",
    "GrantedOperations"
  ],
  "members":{
    "GrantArn":{"shape":"Arn"},
    "GrantName":{"shape":"String"},
    "ParentArn":{"shape":"Arn"},
    "LicenseArn":{"shape":"Arn"},
    "GranteePrincipalArn":{"shape":"Arn"},
    "HomeRegion":{"shape":"String"},
    "GrantStatus":{"shape":"GrantStatus"},
    "StatusReason":{"shape":"StatusReasonMessage"},
    "Version":{"shape":"String"},
    "GrantedOperations":{"shape":"AllowedOperationList"},
     "Options":{"shape":"Options"}
  }
},
"GrantList":{
  "type":"list",
  "member":{"shape":"Grant"}
},
"GrantStatus":{
  "type":"string",
  "enum":[
    "PENDING_WORKFLOW",
```

```
      "PENDING_ACCEPT",
      "REJECTED",
      "ACTIVE",
      "FAILED_WORKFLOW",
      "DELETED",
      "PENDING_DELETE",
      "DISABLED",
      "WORKFLOW_COMPLETED"
    ]
  },
  "GrantedLicense":{
    "type":"structure",
    "members":{
      "LicenseArn":{"shape":"Arn"},
      "LicenseName":{"shape":"String"},
      "ProductName":{"shape":"String"},
      "ProductSKU":{"shape":"String"},
      "Issuer":{"shape":"IssuerDetails"},
      "HomeRegion":{"shape":"String"},
      "Status":{"shape":"LicenseStatus"},
      "Validity":{"shape":"DatetimeRange"},
      "Beneficiary":{"shape":"String"},
      "Entitlements":{"shape":"EntitlementList"},
      "ConsumptionConfiguration":{"shape":"ConsumptionConfiguration"},

  "LicenseMetadata":{"shape":"MetadataList"},
      "CreateTime":{"shape":"ISO8601DateTime"},
      "Version":{"shape":"String"},
      "ReceivedMetadata":{"shape":"ReceivedMetadata"}
    }
  },
  "GrantedLicenseList":{
    "type":"list",
    "member":{"shape":"GrantedLicense"}
  },
  "ISO8601DateTime":{
    "type":"string",
    "max":50,
    "pattern":"^(-?(?:[1-9][0-9]*)?[0-9]{4})-(1[0-2]|0[1-9])-(3[0-1]|0[1-9]|[1-2][0-9])T(2[0-3]|[0-1][0-9]):([0-5][0-
9]):([0-5][0-9])(\\.[0-9]+)?(Z|[+-](?:2[ 0-3]|[0-1][0-9]):[0-5][0-9])+$"
  },
  "Integer":{"type":"integer"},
  "InvalidParameterValueException":{
    "type":"structure",
    "members":{
      "Message":{"shape":"Message"}
    },
    "exception":true,
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  "synthetic":true
},
"InvalidResourceStateException":{
  "type":"structure",
  "members":{
    "Message":{"shape":"Message"}
  },
  "exception":true
},
"InventoryFilter":{
  "type":"structure",
  "required":[
     "Name",
    "Condition"
  ],
  "members":{
    "Name":{"shape":"String"},
    "Condition":{"shape":"InventoryFilterCondition"},
    "Value":{"shape":"String"}
  }
},
"InventoryFilterCondition":{
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  "enum":[
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    "NOT_EQUALS",
    "BEGINS_WITH",
    "CONTAINS"
  ]
},
"InventoryFilterList":{
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  "member":{"shape":"InventoryFilter"}
},
"Issuer":{
  "type":"structure",
  "required":["Name"],
  "members":{
    "Name":{"shape":"String"},
    "SignKey":{"shape":"String"}
  }
},
"IssuerDetails":{
  "type":"structure",
  "members":{
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    "SignKey":{"shape":"String"},
    "KeyFingerprint":{"shape":"String"}
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  }
},
"License":{
  "type":"structure",
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    "LicenseName":{"shape":"String"},

"ProductName":{"shape":"String"},
    "ProductSKU":{"shape":"String"},
    "Issuer":{"shape":"IssuerDetails"},
    "HomeRegion":{"shape":"String"},
    "Status":{"shape":"LicenseStatus"},
    "Validity":{"shape":"DatetimeRange"},
    "Beneficiary":{"shape":"String"},
    "Entitlements":{"shape":"EntitlementList"},
    "ConsumptionConfiguration":{"shape":"ConsumptionConfiguration"},
    "LicenseMetadata":{"shape":"MetadataList"},
    "CreateTime":{"shape":"ISO8601DateTime"},
    "Version":{"shape":"String"}
  }
},
"LicenseConfiguration":{
  "type":"structure",
  "members":{
    "LicenseConfigurationId":{"shape":"String"},
    "LicenseConfigurationArn":{"shape":"String"},
    "Name":{"shape":"String"},
    "Description":{"shape":"String"},
    "LicenseCountingType":{"shape":"LicenseCountingType"},
    "LicenseRules":{"shape":"StringList"},
    "LicenseCount":{"shape":"BoxLong"},
    "LicenseCountHardLimit":{"shape":"BoxBoolean"},
     "DisassociateWhenNotFound":{"shape":"BoxBoolean"},
    "ConsumedLicenses":{"shape":"BoxLong"},
    "Status":{"shape":"String"},
    "OwnerAccountId":{"shape":"String"},
    "ConsumedLicenseSummaryList":{"shape":"ConsumedLicenseSummaryList"},
    "ManagedResourceSummaryList":{"shape":"ManagedResourceSummaryList"},
    "ProductInformationList":{"shape":"ProductInformationList"},
    "AutomatedDiscoveryInformation":{"shape":"AutomatedDiscoveryInformation"}
  }
},
"LicenseConfigurationAssociation":{
  "type":"structure",
  "members":{
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    "ResourceType":{"shape":"ResourceType"},
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    "ResourceOwnerId":{"shape":"String"},
    "AssociationTime":{"shape":"DateTime"},
    "AmiAssociationScope":{"shape":"String"}
   }
  },
  "LicenseConfigurationAssociations":{
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   "member":{"shape":"LicenseConfigurationAssociation"}
  },
  "LicenseConfigurationStatus":{
   "type":"string",
   "enum":[
    "AVAILABLE",
    "DISABLED"
   ]
  },
  "LicenseConfigurationUsage":{
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    "ResourceType":{"shape":"ResourceType"},
    "ResourceStatus":{"shape":"String"},
    "ResourceOwnerId":{"shape":"String"},
    "AssociationTime":{"shape":"DateTime"},
    "ConsumedLicenses":{"shape":"BoxLong"}
   }
  },
  "LicenseConfigurationUsageList":{
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   "member":{"shape":"LicenseConfigurationUsage"}
  },
  "LicenseConfigurations":{
   "type":"list",
   "member":{"shape":"LicenseConfiguration"}
  },
  "LicenseConversionContext":{
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   "members":{
    "UsageOperation":{"shape":"UsageOperation"}
   }
  },
  "LicenseConversionTask":{
   "type":"structure",
   "members":{
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     "ResourceArn":{"shape":"String"},
    "SourceLicenseContext":{"shape":"LicenseConversionContext"},
    "DestinationLicenseContext":{"shape":"LicenseConversionContext"},
```

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    "Status":{"shape":"LicenseConversionTaskStatus"},
    "StatusMessage":{"shape":"String"},
    "StartTime":{"shape":"DateTime"},
    "LicenseConversionTime":{"shape":"DateTime"},
    "EndTime":{"shape":"DateTime"}
  }
},
"LicenseConversionTaskId":{
  "type":"string",
  "max":50,
  "pattern":"^lct-[a-zA-Z0-9]*"
},
"LicenseConversionTaskStatus":{
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  "enum":[
    "IN_PROGRESS",
    "SUCCEEDED",
    "FAILED"
  ]
},
"LicenseConversionTasks":{
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  "member":{"shape":"LicenseConversionTask"}
},
"LicenseCountingType":{
  "type":"string",
  "enum":[
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    "Instance",
    "Core",
    "Socket"
  ]
},
"LicenseDeletionStatus":{
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  "enum":[
    "PENDING_DELETE",
    "DELETED"
  ]
},
"LicenseList":{
  "type":"list",
  "member":{"shape":"License"}
},
"LicenseOperationFailure":{
  "type":"structure",
  "members":{
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    "ResourceType":{"shape":"ResourceType"},
    "ErrorMessage":{"shape":"String"},
    "FailureTime":{"shape":"DateTime"},
    "OperationName":{"shape":"String"},
    "ResourceOwnerId":{"shape":"String"},
    "OperationRequestedBy":{"shape":"String"},
    "MetadataList":{"shape":"MetadataList"}
   }
  },
  "LicenseOperationFailureList":{
   "type":"list",
   "member":{"shape":"LicenseOperationFailure"}
  },
  "LicenseSpecification":{
   "type":"structure",
   "required":["LicenseConfigurationArn"],
   "members":{
    "LicenseConfigurationArn":{"shape":"String"},
    "AmiAssociationScope":{"shape":"String"}
   }
  },
  "LicenseSpecifications":{
   "type":"list",
   "member":{"shape":"LicenseSpecification"}
  },
  "LicenseStatus":{
   "type":"string",
   "enum":[
    "AVAILABLE",
    "PENDING_AVAILABLE",
    "DEACTIVATED",
    "SUSPENDED",
    "EXPIRED",
    "PENDING_DELETE",
    "DELETED"
   ]
  },
  "LicenseUsage":{
   "type":"structure",
   "members":{
    "EntitlementUsages":{"shape":"EntitlementUsageList"}
   }
  },
  "LicenseUsageException":{
   "type":"structure",
   "members":{
    "Message":{"shape":"Message"}
   },
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  "exception":true
},
"ListAssociationsForLicenseConfigurationRequest":{
  "type":"structure",
  "required":["LicenseConfigurationArn"],
  "members":{
    "LicenseConfigurationArn":{"shape":"String"},
    "MaxResults":{"shape":"BoxInteger"},
    "NextToken":{"shape":"String"}
  }
},
"ListAssociationsForLicenseConfigurationResponse":{
  "type":"structure",
   "members":{
    "LicenseConfigurationAssociations":{"shape":"LicenseConfigurationAssociations"},
    "NextToken":{"shape":"String"}
  }
},
"ListDistributedGrantsRequest":{
  "type":"structure",
  "members":{
    "GrantArns":{"shape":"ArnList"},
    "Filters":{"shape":"FilterList"},
    "NextToken":{"shape":"String"},
    "MaxResults":{"shape":"MaxSize100"}
  }
},
"ListDistributedGrantsResponse":{
  "type":"structure",
  "members":{
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    "NextToken":{"shape":"String"}
  }
},
"ListFailuresForLicenseConfigurationOperationsRequest":{
  "type":"structure",
  "required":["LicenseConfigurationArn"],
  "members":{
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    "MaxResults":{"shape":"BoxInteger"},
    "NextToken":{"shape":"String"}
  }
},
"ListFailuresForLicenseConfigurationOperationsResponse":{
  "type":"structure",
   "members":{
    "LicenseOperationFailureList":{"shape":"LicenseOperationFailureList"},
    "NextToken":{"shape":"String"}
```

```
  }
},
"ListLicenseConfigurationsRequest":{
  "type":"structure",
  "members":{
    "LicenseConfigurationArns":{"shape":"StringList"},
    "MaxResults":{"shape":"BoxInteger"},
    "NextToken":{"shape":"String"},
    "Filters":{"shape":"Filters"}
  }
},
"ListLicenseConfigurationsResponse":{
  "type":"structure",
  "members":{
    "LicenseConfigurations":{"shape":"LicenseConfigurations"},
    "NextToken":{"shape":"String"}
  }
},
"ListLicenseConversionTasksRequest":{
  "type":"structure",
  "members":{
    "NextToken":{"shape":"String"},
    "MaxResults":{"shape":"BoxInteger"},
    "Filters":{"shape":"Filters"}
  }
},
"ListLicenseConversionTasksResponse":{
  "type":"structure",
  "members":{
    "LicenseConversionTasks":{"shape":"LicenseConversionTasks"},
     "NextToken":{"shape":"String"}
  }
},
"ListLicenseManagerReportGeneratorsRequest":{
  "type":"structure",
  "members":{
    "Filters":{"shape":"FilterList"},
    "NextToken":{"shape":"String"},
    "MaxResults":{"shape":"MaxSize100"}
  }
},
"ListLicenseManagerReportGeneratorsResponse":{
  "type":"structure",
  "members":{
    "ReportGenerators":{"shape":"ReportGeneratorList"},
    "NextToken":{"shape":"String"}
  }
},
```

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 "ListLicenseSpecificationsForResourceRequest":{
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  "required":["ResourceArn"],
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   "MaxResults":{"shape":"BoxInteger"},
   "NextToken":{"shape":"String"}
  }
 },
 "ListLicenseSpecificationsForResourceResponse":{
  "type":"structure",
  "members":{
   "LicenseSpecifications":{"shape":"LicenseSpecifications"},
   "NextToken":{"shape":"String"}

}
 },
 "ListLicenseVersionsRequest":{
  "type":"structure",
  "required":["LicenseArn"],
  "members":{
   "LicenseArn":{"shape":"Arn"},
   "NextToken":{"shape":"String"},
   "MaxResults":{"shape":"MaxSize100"}
  }
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 "ListLicenseVersionsResponse":{
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  "members":{
   "Licenses":{"shape":"LicenseList"},
   "NextToken":{"shape":"String"}
  }
 },
 "ListLicensesRequest":{
  "type":"structure",
  "members":{
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   "Filters":{"shape":"FilterList"},
   "NextToken":{"shape":"String"},
   "MaxResults":{"shape":"MaxSize100"}
  }
 },
 "ListLicensesResponse":{
  "type":"structure",
  "members":{
   "Licenses":{"shape":"LicenseList"},
   "NextToken":{"shape":"String"}
  }
```

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"ListReceivedGrantsForOrganizationRequest":{
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  "members":{
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     "Filters":{"shape":"FilterList"},
    "NextToken":{"shape":"String"},
    "MaxResults":{"shape":"MaxSize100"}
  }
},
"ListReceivedGrantsForOrganizationResponse":{
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    "NextToken":{"shape":"String"}
  }
},
"ListReceivedGrantsRequest":{
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  "members":{
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    "Filters":{"shape":"FilterList"},
    "NextToken":{"shape":"String"},
    "MaxResults":{"shape":"MaxSize100"}
  }
},
"ListReceivedGrantsResponse":{
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  "members":{
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    "NextToken":{"shape":"String"}
  }
},
"ListReceivedLicensesForOrganizationRequest":{
  "type":"structure",
  "members":{
    "Filters":{"shape":"FilterList"},
    "NextToken":{"shape":"String"},
    "MaxResults":{"shape":"MaxSize100"}
   }
},
"ListReceivedLicensesForOrganizationResponse":{
  "type":"structure",
  "members":{
    "Licenses":{"shape":"GrantedLicenseList"},
    "NextToken":{"shape":"String"}
  }
```

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},
"ListReceivedLicensesRequest":{
  "type":"structure",
  "members":{
    "LicenseArns":{"shape":"ArnList"},
    "Filters":{"shape":"FilterList"},
    "NextToken":{"shape":"String"},
    "MaxResults":{"shape":"MaxSize100"}
  }
},
"ListReceivedLicensesResponse":{
  "type":"structure",
  "members":{
    "Licenses":{"shape":"GrantedLicenseList"},
    "NextToken":{"shape":"String"}
  }
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"ListResourceInventoryRequest":{
  "type":"structure",
  "members":{
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    "NextToken":{"shape":"String"},
    "Filters":{"shape":"InventoryFilterList"}
  }
},
"ListResourceInventoryResponse":{
  "type":"structure",
  "members":{
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     "NextToken":{"shape":"String"}
  }
},
"ListTagsForResourceRequest":{
  "type":"structure",
  "required":["ResourceArn"],
  "members":{
    "ResourceArn":{"shape":"String"}
  }
},
"ListTagsForResourceResponse":{
  "type":"structure",
  "members":{
    "Tags":{"shape":"TagList"}
  }
},
"ListTokensRequest":{
  "type":"structure",
  "members":{
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    "Filters":{"shape":"FilterList"},
    "NextToken":{"shape":"String"},
    "MaxResults":{"shape":"MaxSize100"}
  }
},
"ListTokensResponse":{
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  "members":{
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    "NextToken":{"shape":"String"}
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"ListUsageForLicenseConfigurationRequest":{
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  "required":["LicenseConfigurationArn"],
  "members":{
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    "NextToken":{"shape":"String"},
    "Filters":{"shape":"Filters"}
  }
},
"ListUsageForLicenseConfigurationResponse":{
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  "members":{
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    "NextToken":{"shape":"String"}
  }
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  "members":{
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    "AssociationCount":{"shape":"BoxLong"}
  }
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"ManagedResourceSummaryList":{
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  "member":{"shape":"ManagedResourceSummary"}
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"MaxSize100":{
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  "min":1
},
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  "member":{"shape":"String"},
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"Message":{"type":"string"},
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    "Value":{"shape":"String"}
  }
},
"MetadataList":{
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  "member":{"shape":"Metadata"}
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"NoEntitlementsAllowedException":{
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  "members":{
    "Message":{"shape":"Message"}
  },
  "exception":true
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"Options":{
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  "members":{
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  }
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"OrganizationConfiguration":{
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  "required":["EnableIntegration"],
  "members":{
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  }
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"PrincipalArnList":{
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  "member":{"shape":"Arn"},
  "max":1,
  "min":1
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"ProductInformation":{
  "type":"structure",
  "required":[
    "ResourceType",
    "ProductInformationFilterList"
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```
  ],
  "members":{
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     "ProductInformationFilterList":{"shape":"ProductInformationFilterList"}
  }
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"ProductInformationFilter":{
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  "required":[
    "ProductInformationFilterName",
    "ProductInformationFilterComparator"
  ],
  "members":{
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    "ProductInformationFilterValue":{"shape":"StringList"},
    "ProductInformationFilterComparator":{"shape":"String"}
  }
},
"ProductInformationFilterList":{
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  "member":{"shape":"ProductInformationFilter"}
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"ProductInformationList":{
  "type":"list",
  "member":{"shape":"ProductInformation"}
},
"ProvisionalConfiguration":{
  "type":"structure",
  "required":["MaxTimeToLiveInMinutes"],
  "members":{
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  }
},
"RateLimitExceededException":{
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  "members":{
    "Message":{"shape":"Message"}
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  "exception":true
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"ReceivedMetadata":{
  "type":"structure",
  "members":{
    "ReceivedStatus":{"shape":"ReceivedStatus"},
    "ReceivedStatusReason":{"shape":"StatusReasonMessage"},
    "AllowedOperations":{"shape":"AllowedOperationList"}
  }
},
```

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"ReceivedStatus":{
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  "enum":[
    "PENDING_WORKFLOW",
    "PENDING_ACCEPT",
    "REJECTED",
    "ACTIVE",
    "FAILED_WORKFLOW",
    "DELETED",
    "DISABLED",
    "WORKFLOW_COMPLETED"
  ]
},
"RedirectException":{
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  "members":{
    "Location":{"shape":"Location"},
    "Message":{"shape":"Message"}
  },
  "exception":true
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"RejectGrantRequest":{
  "type":"structure",
  "required":["GrantArn"],
  "members":{
    "GrantArn":{"shape":"Arn"}
  }
},
"RejectGrantResponse":{
  "type":"structure",
  "members":{
     "GrantArn":{"shape":"Arn"},
    "Status":{"shape":"GrantStatus"},
    "Version":{"shape":"String"}
  }
},
"RenewType":{
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  "enum":[
    "None",
    "Weekly",
    "Monthly"
  ]
},
"ReportContext":{
  "type":"structure",
  "required":["licenseConfigurationArns"],
  "members":{
```

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    "licenseConfigurationArns":{"shape":"ArnList"}
  }
},
"ReportFrequency":{
  "type":"structure",
  "members":{
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    "period":{"shape":"ReportFrequencyType"}
  }
},
"ReportFrequencyType":{
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  "enum":[
    "DAY",
    "WEEK",
    "MONTH"
  ]
},
"ReportGenerator":{
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  "members":{
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    "ReportType":{"shape":"ReportTypeList"},
    "ReportContext":{"shape":"ReportContext"},
    "ReportFrequency":{"shape":"ReportFrequency"},
     "LicenseManagerReportGeneratorArn":{"shape":"String"},
    "LastRunStatus":{"shape":"String"},
    "LastRunFailureReason":{"shape":"String"},
    "LastReportGenerationTime":{"shape":"String"},
    "ReportCreatorAccount":{"shape":"String"},
    "Description":{"shape":"String"},
    "S3Location":{"shape":"S3Location"},
    "CreateTime":{"shape":"String"},
    "Tags":{"shape":"TagList"}
  }
},
"ReportGeneratorList":{
  "type":"list",
  "member":{"shape":"ReportGenerator"}
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"ReportGeneratorName":{
  "type":"string",
  "max":100,
  "min":1
},
"ReportType":{
  "type":"string",
  "enum":[
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    "LicenseConfigurationSummaryReport",
    "LicenseConfigurationUsageReport"
  ]
},
"ReportTypeList":{
  "type":"list",
  "member":{"shape":"ReportType"}
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  "members":{
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     "ResourceType":{"shape":"ResourceType"},
    "ResourceArn":{"shape":"String"},
    "Platform":{"shape":"String"},
    "PlatformVersion":{"shape":"String"},
    "ResourceOwningAccountId":{"shape":"String"}
  }
},
"ResourceInventoryList":{
  "type":"list",
  "member":{"shape":"ResourceInventory"}
},
"ResourceLimitExceededException":{
  "type":"structure",
  "members":{
    "Message":{"shape":"Message"}
  },
  "exception":true
},
"ResourceNotFoundException":{
  "type":"structure",
  "members":{
    "Message":{"shape":"Message"}
  },
  "exception":true
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"ResourceType":{
  "type":"string",
  "enum":[
    "EC2_INSTANCE",
    "EC2_HOST",
    "EC2_AMI",
    "RDS",
    "SYSTEMS_MANAGER_MANAGED_INSTANCE"
  ]
},
"S3Location":{
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    "keyPrefix":{"shape":"String"}

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},
"ServerInternalException":{
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  "members":{
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  },
  "exception":true,
  "fault":true
},
"SignedToken":{
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  "min":4096
},
"StatusReasonMessage":{
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  "max":400,
  "pattern":"[\\s\\S]+"
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"String":{"type":"string"},
"StringList":{
  "type":"list",
  "member":{"shape":"String"}
},
"Tag":{
  "type":"structure",
  "members":{
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    "Value":{"shape":"String"}
  }
},
"TagKeyList":{
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  "member":{"shape":"String"}
},
"TagList":{
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  "member":{"shape":"Tag"}
},
"TagResourceRequest":{
  "type":"structure",
  "required":[
    "ResourceArn",
```

```
    "Tags"
  ],
  "members":{
    "ResourceArn":{"shape":"String"},
    "Tags":{"shape":"TagList"}
  }
},
"TagResourceResponse":{
   "type":"structure",
  "members":{
  }
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"TokenData":{
  "type":"structure",
  "members":{
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    "TokenType":{"shape":"String"},
    "LicenseArn":{"shape":"String"},
    "ExpirationTime":{"shape":"ISO8601DateTime"},
    "TokenProperties":{"shape":"MaxSize3StringList"},
    "RoleArns":{"shape":"ArnList"},
    "Status":{"shape":"String"}
  }
},
"TokenList":{
  "type":"list",
  "member":{"shape":"TokenData"}
},
"TokenString":{
  "type":"string",
  "max":4096,
  "pattern":"\\S+"
},
"TokenType":{
  "type":"string",
  "enum":["REFRESH_TOKEN"]
},
"UnsupportedDigitalSignatureMethodException":{
  "type":"structure",
  "members":{
    "Message":{"shape":"Message"}
  },
  "exception":true
},
"UntagResourceRequest":{
  "type":"structure",
  "required":[
    "ResourceArn",
```

```
    "TagKeys"
   ],
  "members":{
    "ResourceArn":{"shape":"String"},
    "TagKeys":{"shape":"TagKeyList"}
  }
},
"UntagResourceResponse":{
  "type":"structure",
  "members":{
  }
},
"UpdateLicenseConfigurationRequest":{
  "type":"structure",
  "required":["LicenseConfigurationArn"],
  "members":{
    "LicenseConfigurationArn":{"shape":"String"},
    "LicenseConfigurationStatus":{"shape":"LicenseConfigurationStatus"},
    "LicenseRules":{"shape":"StringList"},
    "LicenseCount":{"shape":"BoxLong"},
    "LicenseCountHardLimit":{"shape":"BoxBoolean"},
    "Name":{"shape":"String"},
    "Description":{"shape":"String"},
    "ProductInformationList":{"shape":"ProductInformationList"},
    "DisassociateWhenNotFound":{"shape":"BoxBoolean"}
  }
},
"UpdateLicenseConfigurationResponse":{
  "type":"structure",
  "members":{
  }
},
"UpdateLicenseManagerReportGeneratorRequest":{
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  "required":[
    "LicenseManagerReportGeneratorArn",
    "ReportGeneratorName",
    "Type",
    "ReportContext",
    "ReportFrequency",
    "ClientToken"
  ],
  "members":{
    "LicenseManagerReportGeneratorArn":{"shape":"String"},
    "ReportGeneratorName":{"shape":"ReportGeneratorName"},
    "Type":{"shape":"ReportTypeList"},
    "ReportContext":{"shape":"ReportContext"},
    "ReportFrequency":{"shape":"ReportFrequency"},
```

```
    "ClientToken":{"shape":"ClientRequestToken"},
    "Description":{"shape":"String"}
   }
  },
  "UpdateLicenseManagerReportGeneratorResponse":{
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   "members":{
   }
  },
  "UpdateLicenseSpecificationsForResourceRequest":{
   "type":"structure",
   "required":["ResourceArn"],
   "members":{
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    "AddLicenseSpecifications":{"shape":"LicenseSpecifications"},
    "RemoveLicenseSpecifications":{"shape":"LicenseSpecifications"}
   }
  },
  "UpdateLicenseSpecificationsForResourceResponse":{
   "type":"structure",
   "members":{
   }
  },
  "UpdateServiceSettingsRequest":{
   "type":"structure",
   "members":{
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    "SnsTopicArn":{"shape":"String"},
    "OrganizationConfiguration":{"shape":"OrganizationConfiguration"},
    "EnableCrossAccountsDiscovery":{"shape":"BoxBoolean"}
   }
  },
  "UpdateServiceSettingsResponse":{
   "type":"structure",
   "members":{
   }
  },
  "UsageOperation":{
   "type":"string",
   "max":50
  },
  "ValidationException":{
   "type":"structure",
   "members":{
    "Message":{"shape":"Message"}
   },
   "exception":true
  }
```

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 }
}
{
  "testCases": [
    {
      "documentation": "For region ap-south-1 with FIPS enabled and DualStack enabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-user-subscriptions-fips.ap-south-1.api.aws"
        }
      },
      "params": {
        "UseFIPS": true,
        "Region": "ap-south-1",
        "UseDualStack": true
      }
    },
    {
      "documentation": "For region ap-south-1 with FIPS enabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-user-subscriptions-fips.ap-south-1.amazonaws.com"
        }
      },
      "params": {
        "UseFIPS": true,
        "Region": "ap-south-1",
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region ap-south-1 with FIPS disabled
and DualStack enabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-user-subscriptions.ap-south-1.api.aws"
        }
      },
      "params": {
        "UseFIPS": false,
        "Region": "ap-south-1",
        "UseDualStack": true
      }
    },
    {
      "documentation": "For region ap-south-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
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            "url": "https://license-manager-user-subscriptions.ap-south-1.amazonaws.com"
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        },
        "params": {
          "UseFIPS": false,
          "Region": "ap-south-1",
          "UseDualStack": false
        }
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        "documentation": "For region ap-east-1 with FIPS disabled and DualStack disabled",
        "expect": {
            "endpoint": {
                "url": "https://license-manager-user-subscriptions.ap-east-1.amazonaws.com"
            }
        },
        "params": {
            "UseFIPS": false,
            "Region": "ap-east-1",
            "UseDualStack": false
        }
    },
    {
        "documentation": "For region ap-southeast-1 with FIPS enabled and DualStack enabled",
        "expect": {
```

```
            "endpoint": {
                "url": "https://license-manager-user-subscriptions-fips.ap-southeast-1.api.aws"
            }
        },
        "params": {
            "UseFIPS": true,
            "Region":
"ap-southeast-1",
            "UseDualStack": true
        }
    },
    {
        "documentation": "For region ap-southeast-1 with FIPS enabled and DualStack disabled",
        "expect": {
            "endpoint": {
                "url": "https://license-manager-user-subscriptions-fips.ap-southeast-1.amazonaws.com"
            }
        },
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            "Region": "ap-southeast-1",
            "UseDualStack": false
        }
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    {
        "documentation": "For region ap-southeast-1 with FIPS disabled and DualStack enabled",
        "expect": {
            "endpoint": {
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            }
        },
        "params": {
            "UseFIPS": false,
            "Region": "ap-southeast-1",
            "UseDualStack": true
        }

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    {
        "documentation": "For region ap-southeast-1 with FIPS disabled and DualStack disabled",
        "expect": {
            "endpoint": {
                "url": "https://license-manager-user-subscriptions.ap-southeast-1.amazonaws.com"
            }
        },
        "params": {
            "UseFIPS": false,
            "Region": "ap-southeast-1",
```

```
            "UseDualStack": false
        }
    },
    {
        "documentation": "For region ap-southeast-2 with FIPS enabled and DualStack enabled",
        "expect": {
            "endpoint": {
                "url": "https://license-manager-user-subscriptions-fips.ap-southeast-2.api.aws"
            }
        },
        "params": {
            "UseFIPS": true,
            "Region": "ap-southeast-2",
            "UseDualStack": true
        }
    },
    {
        "documentation": "For region ap-southeast-2 with FIPS
enabled and DualStack disabled",
        "expect": {
            "endpoint": {
                "url": "https://license-manager-user-subscriptions-fips.ap-southeast-2.amazonaws.com"
            }
        },
        "params": {
            "UseFIPS": true,
            "Region": "ap-southeast-2",
            "UseDualStack": false
        }
    },
    {
        "documentation": "For region ap-southeast-2 with FIPS disabled and DualStack enabled",
        "expect": {
            "endpoint": {
                "url": "https://license-manager-user-subscriptions.ap-southeast-2.api.aws"
            }
        },
        "params": {
            "UseFIPS": false,
            "Region": "ap-southeast-2",
            "UseDualStack": true
        }
    },
    {
        "documentation": "For region ap-southeast-2 with FIPS disabled and DualStack disabled",
        "expect": {
            "endpoint":
```

```
{
            "url": "https://license-manager-user-subscriptions.ap-southeast-2.amazonaws.com"
          }
        },
        "params": {
          "UseFIPS": false,
          "Region": "ap-southeast-2",
          "UseDualStack": false
        }
      },
      {
        "documentation": "For region us-east-1 with FIPS enabled and DualStack enabled",
        "expect": {
          "endpoint": {
            "url": "https://license-manager-user-subscriptions-fips.us-east-1.api.aws"
          }
        },
        "params": {
          "UseFIPS": true,
          "Region": "us-east-1",
          "UseDualStack": true
        }
      },
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        "documentation": "For region us-east-1 with FIPS enabled and DualStack disabled",
        "expect": {
          "endpoint": {
            "url": "https://license-manager-user-subscriptions-fips.us-east-1.amazonaws.com"
           }
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        "params": {
          "UseFIPS": true,
          "Region": "us-east-1",
          "UseDualStack": false
        }
      },
      {
        "documentation": "For region us-east-1 with FIPS disabled and DualStack enabled",
        "expect": {
          "endpoint": {
            "url": "https://license-manager-user-subscriptions.us-east-1.api.aws"
          }
        },
        "params": {
          "UseFIPS": false,
          "Region": "us-east-1",
          "UseDualStack": true
        }
```

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},
{
   "documentation": "For region us-east-1 with FIPS disabled and DualStack disabled",
   "expect": {
      "endpoint": {
         "url": "https://license-manager-user-subscriptions.us-east-1.amazonaws.com"
      }
   },
   "params": {
      "UseFIPS": false,

"Region": "us-east-1",
      "UseDualStack": false
   }
},
{
   "documentation": "For region us-east-2 with FIPS enabled and DualStack enabled",
   "expect": {
      "endpoint": {
         "url": "https://license-manager-user-subscriptions-fips.us-east-2.api.aws"
      }
   },
   "params": {
      "UseFIPS": true,
      "Region": "us-east-2",
      "UseDualStack": true
   }
},
{
   "documentation": "For region us-east-2 with FIPS enabled and DualStack disabled",
   "expect": {
      "endpoint": {
         "url": "https://license-manager-user-subscriptions-fips.us-east-2.amazonaws.com"
      }
   },
   "params": {
      "UseFIPS": true,
      "Region": "us-east-2",
      "UseDualStack": false
   }
},
{

  "documentation": "For region us-east-2 with FIPS disabled and DualStack enabled",
   "expect": {
      "endpoint": {
         "url": "https://license-manager-user-subscriptions.us-east-2.api.aws"
      }
```

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    },
    "params": {
      "UseFIPS": false,
      "Region": "us-east-2",
      "UseDualStack": true
    }
  },
  {
    "documentation": "For region us-east-2 with FIPS disabled and DualStack disabled",
    "expect": {
      "endpoint": {
        "url": "https://license-manager-user-subscriptions.us-east-2.amazonaws.com"
      }
    },
    "params": {
      "UseFIPS": false,
      "Region": "us-east-2",
      "UseDualStack": false
    }
  },
  {
    "documentation": "For custom endpoint with fips disabled and dualstack disabled",
    "expect":
{
      "endpoint": {
        "url": "https://example.com"
      }
    },
    "params": {
      "UseFIPS": false,
      "Region": "us-east-1",
      "UseDualStack": false,
      "Endpoint": "https://example.com"
    }
  },
  {
    "documentation": "For custom endpoint with fips enabled and dualstack disabled",
    "expect": {
      "error": "Invalid Configuration: FIPS and custom endpoint are not supported"
    },
    "params": {
      "UseFIPS": true,
      "Region": "us-east-1",
      "UseDualStack": false,
      "Endpoint": "https://example.com"
    }
  },
  {
```

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        "documentation": "For custom endpoint with fips disabled and dualstack enabled",
        "expect": {
          "error": "Invalid Configuration: Dualstack and custom endpoint are not supported"

      },
        "params": {
          "UseFIPS": false,
          "Region": "us-east-1",
          "UseDualStack": true,
          "Endpoint": "https://example.com"
        }
      }
  ],
  "version": "1.0"
}
{
 "version":"2.0",
 "metadata":{
  "apiVersion":"2018-05-10",
  "endpointPrefix":"license-manager-linux-subscriptions",
  "jsonVersion":"1.1",
  "protocol":"rest-json",
  "serviceFullName":"AWS License Manager Linux Subscriptions",
  "serviceId":"License Manager Linux Subscriptions",
  "signatureVersion":"v4",
  "signingName":"license-manager-linux-subscriptions",
  "uid":"license-manager-linux-subscriptions-2018-05-10"
 },
 "operations":{
  "GetServiceSettings":{
   "name":"GetServiceSettings",
   "http":{
    "method":"POST",
    "requestUri":"/subscription/GetServiceSettings",
    "responseCode":200
   },
   "input":{"shape":"GetServiceSettingsRequest"},
   "output":{"shape":"GetServiceSettingsResponse"},
   "errors":[
    {"shape":"InternalServerException"},
    {"shape":"ThrottlingException"},
    {"shape":"ValidationException"}
   ],
   "idempotent":true
  },
  "ListLinuxSubscriptionInstances":{
   "name":"ListLinuxSubscriptionInstances",
```

```
    "http":{
      "method":"POST",
      "requestUri":"/subscription/ListLinuxSubscriptionInstances",
      "responseCode":200
    },
    "input":{"shape":"ListLinuxSubscriptionInstancesRequest"},
    "output":{"shape":"ListLinuxSubscriptionInstancesResponse"},
    "errors":[
      {"shape":"InternalServerException"},
      {"shape":"ThrottlingException"},
      {"shape":"ValidationException"}
    ],
    "idempotent":true
  },
  "ListLinuxSubscriptions":{
    "name":"ListLinuxSubscriptions",
    "http":{
      "method":"POST",
      "requestUri":"/subscription/ListLinuxSubscriptions",
      "responseCode":200
    },
    "input":{"shape":"ListLinuxSubscriptionsRequest"},
    "output":{"shape":"ListLinuxSubscriptionsResponse"},
    "errors":[
      {"shape":"InternalServerException"},
      {"shape":"ThrottlingException"},
      {"shape":"ValidationException"}
    ],
    "idempotent":true

  },
  "UpdateServiceSettings":{
    "name":"UpdateServiceSettings",
    "http":{
      "method":"POST",
      "requestUri":"/subscription/UpdateServiceSettings",
      "responseCode":200
    },
    "input":{"shape":"UpdateServiceSettingsRequest"},
    "output":{"shape":"UpdateServiceSettingsResponse"},
    "errors":[
      {"shape":"InternalServerException"},
      {"shape":"ThrottlingException"},
      {"shape":"ValidationException"}
    ],
    "idempotent":true
  }
},
```

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"shapes":{
 "Boolean":{
  "type":"boolean",
  "box":true
 },
 "BoxInteger":{
  "type":"integer",
  "box":true
 },
 "BoxLong":{
  "type":"long",
  "box":true
 },
 "Filter":{
  "type":"structure",
  "members":{
   "Name":{"shape":"String"},
   "Operator":{"shape":"Operator"},
   "Values":{"shape":"StringList"}
  }
 },
 "FilterList":{
  "type":"list",
  "member":{"shape":"Filter"}
 },
 "GetServiceSettingsRequest":{
   "type":"structure",
  "members":{
  }
 },
 "GetServiceSettingsResponse":{
  "type":"structure",
  "members":{
   "HomeRegions":{"shape":"StringList"},
   "LinuxSubscriptionsDiscovery":{"shape":"LinuxSubscriptionsDiscovery"},
   "LinuxSubscriptionsDiscoverySettings":{"shape":"LinuxSubscriptionsDiscoverySettings"},
   "Status":{"shape":"Status"},
   "StatusMessage":{"shape":"StringMap"}
  }
 },
 "Instance":{
  "type":"structure",
  "members":{
   "AccountID":{"shape":"String"},
   "AmiId":{"shape":"String"},
   "InstanceID":{"shape":"String"},
   "InstanceType":{"shape":"String"},
   "LastUpdatedTime":{"shape":"String"},
```

```
      "ProductCode":{"shape":"ProductCodeList"},
      "Region":{"shape":"String"},
      "Status":{"shape":"String"},
      "SubscriptionName":{"shape":"String"},
      "UsageOperation":{"shape":"String"}
    }
  },
  "InstanceList":{

"type":"list",
    "member":{"shape":"Instance"}
  },
  "InternalServerException":{
    "type":"structure",
    "members":{
      "message":{"shape":"String"}
    },
    "exception":true,
    "fault":true
  },
  "LinuxSubscriptionsDiscovery":{
    "type":"string",
    "enum":[
      "Enabled",
      "Disabled"
    ]
  },
  "LinuxSubscriptionsDiscoverySettings":{
    "type":"structure",
    "required":[
      "OrganizationIntegration",
      "SourceRegions"
    ],
    "members":{
      "OrganizationIntegration":{"shape":"OrganizationIntegration"},
      "SourceRegions":{"shape":"StringList"}
    }
  },
  "ListLinuxSubscriptionInstancesRequest":{
    "type":"structure",
    "members":{
      "Filters":{"shape":"FilterList"},
      "MaxResults":{"shape":"BoxInteger"},
      "NextToken":{"shape":"ListLinuxSubscriptionInstancesRequestNextTokenString"}
    }
  },
  "ListLinuxSubscriptionInstancesRequestNextTokenString":{
```

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   "type":"string",
  "max":16384,
  "min":1
},
"ListLinuxSubscriptionInstancesResponse":{
  "type":"structure",
  "members":{
    "Instances":{"shape":"InstanceList"},
    "NextToken":{"shape":"String"}
  }
},
"ListLinuxSubscriptionsRequest":{
  "type":"structure",
  "members":{
    "Filters":{"shape":"FilterList"},
    "MaxResults":{"shape":"BoxInteger"},
    "NextToken":{"shape":"ListLinuxSubscriptionsRequestNextTokenString"}
  }
},
"ListLinuxSubscriptionsRequestNextTokenString":{
  "type":"string",
  "max":16384,
  "min":1
},
"ListLinuxSubscriptionsResponse":{
  "type":"structure",
  "members":{
    "NextToken":{"shape":"String"},
    "Subscriptions":{"shape":"SubscriptionList"}
  }
},
"Operator":{
  "type":"string",
  "enum":[
    "Equal",
    "NotEqual",
    "Contains"
  ],
  "max":20,
  "min":1
},
"OrganizationIntegration":{
   "type":"string",
  "enum":[
    "Enabled",
    "Disabled"
  ]
},
```

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"ProductCodeList":{
  "type":"list",
  "member":{"shape":"String"}
},
"Status":{
  "type":"string",
  "enum":[
    "InProgress",
    "Completed",
    "Successful",
    "Failed"
  ]
},
"String":{"type":"string"},
"StringList":{
  "type":"list",
  "member":{"shape":"StringListMemberString"},
  "max":100,
  "min":1
},
"StringListMemberString":{
  "type":"string",
  "max":100,
  "min":1
},
"StringMap":{
  "type":"map",
  "key":{"shape":"String"},
  "value":{"shape":"String"}
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"Subscription":{
  "type":"structure",
  "members":{
    "InstanceCount":{"shape":"BoxLong"},
    "Name":{"shape":"String"},
    "Type":{"shape":"String"}
  }
},
"SubscriptionList":{
  "type":"list",
  "member":{"shape":"Subscription"}
},
"ThrottlingException":{
   "type":"structure",
  "members":{
    "message":{"shape":"String"}
  },
  "exception":true
```

```
  },
  "UpdateServiceSettingsRequest":{
    "type":"structure",
    "required":[
      "LinuxSubscriptionsDiscovery",
      "LinuxSubscriptionsDiscoverySettings"
    ],
    "members":{
      "AllowUpdate":{"shape":"Boolean"},
      "LinuxSubscriptionsDiscovery":{"shape":"LinuxSubscriptionsDiscovery"},
      "LinuxSubscriptionsDiscoverySettings":{"shape":"LinuxSubscriptionsDiscoverySettings"}
    }
  },
  "UpdateServiceSettingsResponse":{
    "type":"structure",
    "members":{
      "HomeRegions":{"shape":"StringList"},
      "LinuxSubscriptionsDiscovery":{"shape":"LinuxSubscriptionsDiscovery"},
      "LinuxSubscriptionsDiscoverySettings":{"shape":"LinuxSubscriptionsDiscoverySettings"},
      "Status":{"shape":"Status"},
      "StatusMessage":{"shape":"StringMap"}
    }
  },
  "ValidationException":{
    "type":"structure",
     "members":{
      "message":{"shape":"String"}
    },
    "exception":true
  }
 }
}
{
 "version": "2.0",
 "service": "<p>License Manager makes it easier to manage licenses from software vendors across multiple Amazon Web Services accounts and on-premises servers.</p>",
 "operations": {
  "AcceptGrant": "<p>Accepts the specified grant.</p>",
  "CheckInLicense": "<p>Checks in the specified license. Check in a license when it is no longer in use.</p>",
  "CheckoutBorrowLicense": "<p>Checks out the specified license for offline use.</p>",
  "CheckoutLicense": "<p>Checks out the specified license.</p> <note> <p>If the account that created the license is the same that is performing the check out, you must specify the account as the beneficiary.</p> </note>",
  "CreateGrant": "<p>Creates a grant for the specified license. A grant shares the use of license entitlements with a specific Amazon Web Services account, an organization, or an organizational unit (OU). For more information, see <a href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/granted-licenses.html\">Granted licenses in License Manager</a> in the <i>License Manager User Guide</i>.</p>",
  "CreateGrantVersion": "<p>Creates a new version of the specified grant. For more information, see <a href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/granted-licenses.html\">Granted licenses in
```

License Manager in the License Manager User Guide. ",
"CreateLicense": " Creates a license. ",
"CreateLicenseConfiguration": " Creates a license configuration. A license configuration is an abstraction of a customer license agreement that can be consumed and enforced by License Manager. Components include specifications for the license type (licensing by instance, socket, CPU, or vCPU), allowed tenancy (shared tenancy, Dedicated Instance, Dedicated Host, or all of these), license affinity to host (how long a license must be associated with a host), and the number of licenses purchased and used. ",
"CreateLicenseConversionTaskForResource":
" Creates a new license conversion task. ",
"CreateLicenseManagerReportGenerator": " Creates a report generator. ",
"CreateLicenseVersion": " Creates a new version of the specified license. ",
"CreateToken": " Creates a long-lived token. A refresh token is a JWT token used to get an access token. With an access token, you can call AssumeRoleWithWebIdentity to get role credentials that you can use to call License Manager to manage the specified license. ",
"DeleteGrant": " Deletes the specified grant. ",
"DeleteLicense": " Deletes the specified license. ",
"DeleteLicenseConfiguration": " Deletes the specified license configuration. You cannot delete a license configuration that is in use. ",
"DeleteLicenseManagerReportGenerator": " Deletes the specified report generator. This action deletes the report generator, which stops it from generating future reports. The action cannot be reversed. It
has no effect on the previous reports from this generator. ",
"DeleteToken": " Deletes the specified token. Must be called in the license home Region. ",
"ExtendLicenseConsumption": " Extends the expiration date for license consumption. ",
"GetAccessToken": " Gets a temporary access token to use with AssumeRoleWithWebIdentity. Access tokens are valid for one hour. ",
"GetGrant": " Gets detailed information about the specified grant. ",
"GetLicense": " Gets detailed information about the specified license. ",
"GetLicenseConfiguration": " Gets detailed information about the specified license configuration. ",
"GetLicenseConversionTask": " Gets information about the specified license type conversion task. ",
"GetLicenseManagerReportGenerator": " Gets information about the specified report generator. ",
"GetLicenseUsage": " Gets detailed information about the usage of the specified license. ",
"GetServiceSettings":
" Gets the License Manager settings for the current Region. ",
"ListAssociationsForLicenseConfiguration": " Lists the resource associations for the specified license configuration. Resource associations need not consume licenses from a license configuration. For example, an AMI or a stopped instance might not consume a license (depending on the license rules). ",
"ListDistributedGrants": " Lists the grants distributed for the specified license. ",
"ListFailuresForLicenseConfigurationOperations": " Lists the license configuration operations that failed. ",
"ListLicenseConfigurations": " Lists the license configurations for your account. ",
"ListLicenseConversionTasks": " Lists the license type conversion tasks for your account. ",
"ListLicenseManagerReportGenerators": " Lists the report generators for your account. ",
"ListLicenseSpecificationsForResource": " Describes the license configurations for the
specified resource. ",
"ListLicenseVersions": " Lists all versions of the specified license. ",
"ListLicenses": " Lists the licenses for your account. ",
"ListReceivedGrants": " Lists grants that are received. Received grants are grants created while specifying the recipient as this Amazon Web Services account, your organization, or an organizational unit (OU) to which this

member account belongs. ",
"ListReceivedGrantsForOrganization": " Lists the grants received for all accounts in the organization. ",
"ListReceivedLicenses": " Lists received licenses. ",
"ListReceivedLicensesForOrganization": " Lists the licenses received for all accounts in the organization. ",
"ListResourceInventory": " Lists resources managed using Systems Manager inventory. ",
"ListTagsForResource": " Lists the tags for the specified license configuration. ",
"ListTokens": " Lists your tokens. ",
"ListUsageForLicenseConfiguration":
" Lists all license usage records for a license configuration, displaying license consumption details by resource at a selected point in time. Use this action to audit the current license consumption for any license inventory and configuration. ",
"RejectGrant": " Rejects the specified grant. ",
"TagResource": " Adds the specified tags to the specified license configuration. ",
"UntagResource": " Removes the specified tags from the specified license configuration. ",
"UpdateLicenseConfiguration": " Modifies the attributes of an existing license configuration. ",
"UpdateLicenseManagerReportGenerator": " Updates a report generator. After you make changes to a report generator, it starts generating new reports within 60 minutes of being updated. ",
"UpdateLicenseSpecificationsForResource": " Adds or removes the specified license configurations for the specified Amazon Web Services resource. You can update the
license specifications of AMIs, instances, and hosts. You cannot update the license specifications for launch templates and CloudFormation templates, as they send license configurations to the operation that creates the resource. ",
"UpdateServiceSettings": " Updates License Manager settings for the current Region. "
},
"shapes": {
"AcceptGrantRequest": {
"base": null,
"refs": {
}
},
"AcceptGrantResponse": {
"base": null,
"refs": {
}
},
"AccessDeniedException": {
"base": " Access to resource denied. ",
"refs": {
}
},
"ActivationOverrideBehavior": {
"base": null,
"refs": {
"Options$ActivationOverrideBehavior": " An activation option for your grant that determines the behavior of activating a grant. Activation options can only be used with granted licenses sourced from the Amazon Web Services Marketplace. Additionally, the operation must specify the value of <code>ACTIVE</code>

for the <code>Status</code> parameter.   As a license administrator, you can optionally specify an <code>ActivationOverrideBehavior</code> when activating a grant.   As a grantor, you can optionally specify an <code>ActivationOverrideBehavior</code> when you activate a grant for a grantee account in your organization.   As a grantee, if the grantor creating the distributed grant doesnt specify an <code>ActivationOverrideBehavior</code>, you can optionally specify one when you are activating the grant.   <dl> <dt>DISTRIBUTED_GRANTS_ONLY</dt> <dd> Use this value to activate a grant without replacing any member accounts active grants for the same product. </dd> <dt>ALL_GRANTS_PERMITTED_BY_ISSUER</dt> <dd> Use this value to activate a grant and disable other active grants in any member accounts for the same product. This action will also replace their previously activated grants with this activated grant.
</dd> </dl>"
    }
  },
  "AllowedOperation": {
    "base": null,
    "refs": {
      "AllowedOperationList$member": null
    }
  },
  "AllowedOperationList": {
    "base": null,
    "refs": {
      "CreateGrantRequest$AllowedOperations": " Allowed operations for the grant. ",
      "CreateGrantVersionRequest$AllowedOperations": " Allowed operations for the grant. ",
      "Grant$GrantedOperations": " Granted operations. ",
      "ReceivedMetadata$AllowedOperations": " Allowed operations. "
    }
  },
  "Arn": {
    "base": null,
    "refs": {
      "AcceptGrantRequest$GrantArn": " Amazon Resource Name (ARN) of the grant. ",
      "AcceptGrantResponse$GrantArn": " Grant ARN. ",
      "ArnList$member": null,
      "CheckoutBorrowLicenseRequest$LicenseArn": " Amazon Resource Name (ARN) of the license. The license must use the borrow consumption configuration. ",
      "CheckoutBorrowLicenseResponse$LicenseArn":
" Amazon Resource Name (ARN) of the license. ",
      "CreateGrantRequest$LicenseArn": " Amazon Resource Name (ARN) of the license. ",
      "CreateGrantResponse$GrantArn": " Grant ARN. ",
      "CreateGrantVersionRequest$GrantArn": " Amazon Resource Name (ARN) of the grant. ",
      "CreateGrantVersionResponse$GrantArn": " Grant ARN. ",
      "CreateLicenseConversionTaskForResourceRequest$ResourceArn": " Amazon Resource Name (ARN) of the resource you are converting the license type for. ",
      "CreateLicenseResponse$LicenseArn": " Amazon Resource Name (ARN) of the license. ",
      "CreateLicenseVersionRequest$LicenseArn": " Amazon Resource Name (ARN) of the license. ",
      "CreateLicenseVersionResponse$LicenseArn": " License ARN. ",
      "CreateTokenRequest$LicenseArn": " Amazon Resource Name (ARN) of the license. The ARN is mapped

```
to the aud claim of the JWT token.</p>",
      "DeleteGrantRequest$GrantArn":
 "<p>Amazon Resource Name (ARN) of the grant.</p>",
      "DeleteGrantResponse$GrantArn": "<p>Grant ARN.</p>",
      "DeleteLicenseRequest$LicenseArn": "<p>Amazon Resource Name (ARN) of the license.</p>",
      "GetGrantRequest$GrantArn": "<p>Amazon Resource Name (ARN) of the grant.</p>",
      "GetLicenseRequest$LicenseArn": "<p>Amazon Resource Name (ARN) of the license.</p>",
      "GetLicenseUsageRequest$LicenseArn": "<p>Amazon Resource Name (ARN) of the license.</p>",
      "Grant$GrantArn": "<p>Amazon Resource Name (ARN) of the grant.</p>",
      "Grant$ParentArn": "<p>Parent ARN.</p>",
      "Grant$LicenseArn": "<p>License ARN.</p>",
      "Grant$GranteePrincipalArn": "<p>The grantee principal ARN.</p>",
      "GrantedLicense$LicenseArn": "<p>Amazon Resource Name (ARN) of the license.</p>",
      "License$LicenseArn": "<p>Amazon Resource Name (ARN) of the license.</p>",
      "ListLicenseVersionsRequest$LicenseArn": "<p>Amazon Resource Name (ARN) of
 the license.</p>",
      "ListReceivedGrantsForOrganizationRequest$LicenseArn": "<p>The Amazon Resource Name (ARN) of the
received license.</p>",
      "PrincipalArnList$member": null,
      "RejectGrantRequest$GrantArn": "<p>Amazon Resource Name (ARN) of the grant.</p>",
      "RejectGrantResponse$GrantArn": "<p>Grant ARN.</p>"
    }
  },
  "ArnList": {
    "base": null,
    "refs": {
      "CreateTokenRequest$RoleArns": "<p>Amazon Resource Name (ARN) of the IAM roles to embed in the
token. License Manager does not check whether the roles are in use.</p>",
      "ListDistributedGrantsRequest$GrantArns": "<p>Amazon Resource Names (ARNs) of the grants.</p>",
      "ListLicensesRequest$LicenseArns": "<p>Amazon Resource Names (ARNs) of the licenses.</p>",
      "ListReceivedGrantsRequest$GrantArns": "<p>Amazon Resource Names (ARNs) of the grants.</p>",
      "ListReceivedLicensesRequest$LicenseArns": "<p>Amazon Resource Names (ARNs) of the licenses.</p>",

    "ReportContext$licenseConfigurationArns": "<p>Amazon Resource Name (ARN) of the license configuration
that this generator reports on.</p>",
      "TokenData$RoleArns": "<p>Amazon Resource Names (ARN) of the roles included in the token.</p>"
    }
  },
  "AuthorizationException": {
    "base": "<p>The Amazon Web Services user account does not have permission to perform the action. Check the
IAM policy associated with this account.</p>",
    "refs": {
    }
  },
  "AutomatedDiscoveryInformation": {
    "base": "<p>Describes automated discovery.</p>",
    "refs": {
      "GetLicenseConfigurationResponse$AutomatedDiscoveryInformation": "<p>Automated discovery
```

```
information.</p>",
      "LicenseConfiguration$AutomatedDiscoveryInformation": "<p>Automated discovery information.</p>"
    }
  },
  "Boolean": {
    "base": null,
    "refs": {
      "ExtendLicenseConsumptionRequest$DryRun": "<p>Checks whether you have the required permissions for the action,
 without actually making the request. Provides an error response if you do not have the required permissions.</p>",
      "OrganizationConfiguration$EnableIntegration": "<p>Enables Organizations integration.</p>"
    }
  },
  "BorrowConfiguration": {
    "base": "<p>Details about a borrow configuration.</p>",
    "refs": {
      "ConsumptionConfiguration$BorrowConfiguration": "<p>Details about a borrow configuration.</p>"
    }
  },
  "BoxBoolean": {
    "base": null,
    "refs": {
      "BorrowConfiguration$AllowEarlyCheckIn": "<p>Indicates whether early check-ins are allowed.</p>",
      "CreateLicenseConfigurationRequest$LicenseCountHardLimit": "<p>Indicates whether hard or soft license enforcement is used. Exceeding a hard limit blocks the launch of new instances.</p>",
      "CreateLicenseConfigurationRequest$DisassociateWhenNotFound": "<p>When true, disassociates a resource when software is uninstalled.</p>",
      "Entitlement$Overage": "<p>Indicates
 whether overages are allowed.</p>",
      "Entitlement$AllowCheckIn": "<p>Indicates whether check-ins are allowed.</p>",
      "GetLicenseConfigurationResponse$LicenseCountHardLimit": "<p>Sets the number of available licenses as a hard limit.</p>",
      "GetLicenseConfigurationResponse$DisassociateWhenNotFound": "<p>When true, disassociates a resource when software is uninstalled.</p>",
      "GetServiceSettingsResponse$EnableCrossAccountsDiscovery": "<p>Indicates whether cross-account discovery is enabled.</p>",
      "LicenseConfiguration$LicenseCountHardLimit": "<p>Number of available licenses as a hard limit.</p>",
      "LicenseConfiguration$DisassociateWhenNotFound": "<p>When true, disassociates a resource when software is uninstalled.</p>",
      "UpdateLicenseConfigurationRequest$LicenseCountHardLimit": "<p>New hard limit of the number of available licenses.</p>",
      "UpdateLicenseConfigurationRequest$DisassociateWhenNotFound": "<p>When true, disassociates
 a resource when software is uninstalled.</p>",
      "UpdateServiceSettingsRequest$EnableCrossAccountsDiscovery": "<p>Activates cross-account discovery.</p>"
    }
  },
  "BoxInteger": {
```

```
    "base": null,
    "refs": {
      "BorrowConfiguration$MaxTimeToLiveInMinutes": "<p>Maximum time for the borrow configuration, in minutes.</p>",
      "ListAssociationsForLicenseConfigurationRequest$MaxResults": "<p>Maximum number of results to return in a single call.</p>",
      "ListFailuresForLicenseConfigurationOperationsRequest$MaxResults": "<p>Maximum number of results to return in a single call.</p>",
      "ListLicenseConfigurationsRequest$MaxResults": "<p>Maximum number of results to return in a single call.</p>",
      "ListLicenseConversionTasksRequest$MaxResults": "<p>Maximum number of results to return in a single call.</p>",
      "ListLicenseSpecificationsForResourceRequest$MaxResults": "<p>Maximum number of results to return in a single call.</p>",

    "ListResourceInventoryRequest$MaxResults": "<p>Maximum number of results to return in a single call.</p>",
      "ListUsageForLicenseConfigurationRequest$MaxResults": "<p>Maximum number of results to return in a single call.</p>",
      "ProvisionalConfiguration$MaxTimeToLiveInMinutes": "<p>Maximum time for the provisional configuration, in minutes.</p>"
    }
  },
  "BoxLong": {
    "base": null,
    "refs": {
      "ConsumedLicenseSummary$ConsumedLicenses": "<p>Number of licenses consumed by the resource.</p>",
      "CreateLicenseConfigurationRequest$LicenseCount": "<p>Number of licenses managed by the license configuration.</p>",
      "GetLicenseConfigurationResponse$LicenseCount": "<p>Number of available licenses.</p>",
      "GetLicenseConfigurationResponse$ConsumedLicenses": "<p>Number of licenses assigned to resources.</p>",
      "LicenseConfiguration$LicenseCount": "<p>Number of licenses managed by the license configuration.</p>",
      "LicenseConfiguration$ConsumedLicenses":
 "<p>Number of licenses consumed. </p>",
      "LicenseConfigurationUsage$ConsumedLicenses": "<p>Number of licenses consumed by the resource.</p>",
      "ManagedResourceSummary$AssociationCount": "<p>Number of resources associated with licenses.</p>",
      "UpdateLicenseConfigurationRequest$LicenseCount": "<p>New number of licenses managed by the license configuration.</p>"
    }
  },
  "CheckInLicenseRequest": {
    "base": null,
    "refs": {
    }
  },
  "CheckInLicenseResponse": {
    "base": null,
    "refs": {
    }
```

```
  },
  "CheckoutBorrowLicenseRequest": {
    "base": null,
    "refs": {
    }
  },
  "CheckoutBorrowLicenseResponse": {
    "base": null,
    "refs": {
    }
  },
  "CheckoutLicenseRequest": {
    "base": null,
    "refs": {
    }
  },
  "CheckoutLicenseResponse": {
    "base": null,
    "refs": {
    }
  },
  "CheckoutType": {
    "base": null,
    "refs": {
      "CheckoutLicenseRequest$CheckoutType": "<p>Checkout type.</p>",
      "CheckoutLicenseResponse$CheckoutType": "<p>Checkout type.</p>"
    }
  },
  "ClientRequestToken": {
    "base": null,
    "refs": {
      "CreateLicenseManagerReportGeneratorRequest$ClientToken": "<p>Unique, case-sensitive identifier that you provide to ensure the idempotency of the request.</p>",
      "UpdateLicenseManagerReportGeneratorRequest$ClientToken": "<p>Unique, case-sensitive identifier that you provide to ensure the idempotency of the request.</p>"
    }
  },
  "ClientToken": {
    "base": null,
    "refs": {
      "CheckoutBorrowLicenseRequest$ClientToken": "<p>Unique, case-sensitive identifier that you provide to ensure the idempotency of the request.</p>",
      "CheckoutLicenseRequest$ClientToken": "<p>Unique, case-sensitive identifier that you provide to ensure the idempotency of the request.</p>",
      "CreateGrantRequest$ClientToken": "<p>Unique, case-sensitive
 identifier that you provide to ensure the idempotency of the request.</p>",
      "CreateGrantVersionRequest$ClientToken": "<p>Unique, case-sensitive identifier that you provide to ensure the idempotency of the request.</p>",
```

```
      "CreateLicenseRequest$ClientToken": "<p>Unique, case-sensitive identifier that you provide to ensure the idempotency of the request.</p>",
      "CreateLicenseVersionRequest$ClientToken": "<p>Unique, case-sensitive identifier that you provide to ensure the idempotency of the request.</p>",
      "CreateTokenRequest$ClientToken": "<p>Idempotency token, valid for 10 minutes.</p>"
    }
  },
  "ConflictException": {
    "base": "<p>There was a conflict processing the request. Try your request again.</p>",
    "refs": {
    }
  },
  "ConsumedLicenseSummary": {
    "base": "<p>Details about license consumption.</p>",
    "refs": {
      "ConsumedLicenseSummaryList$member": null
    }
  },
  "ConsumedLicenseSummaryList": {
     "base": null,
    "refs": {
      "GetLicenseConfigurationResponse$ConsumedLicenseSummaryList": "<p>Summaries of the licenses consumed by resources.</p>",
      "LicenseConfiguration$ConsumedLicenseSummaryList": "<p>Summaries for licenses consumed by various resources.</p>"
    }
  },
  "ConsumptionConfiguration": {
    "base": "<p>Details about a consumption configuration.</p>",
    "refs": {
      "CreateLicenseRequest$ConsumptionConfiguration": "<p>Configuration for consumption of the license. Choose a provisional configuration for workloads running with continuous connectivity. Choose a borrow configuration for workloads with offline usage.</p>",
      "CreateLicenseVersionRequest$ConsumptionConfiguration": "<p>Configuration for consumption of the license. Choose a provisional configuration for workloads running with continuous connectivity. Choose a borrow configuration for workloads with offline usage.</p>",
      "GrantedLicense$ConsumptionConfiguration":
 "<p>Configuration for consumption of the license.</p>",
      "License$ConsumptionConfiguration": "<p>Configuration for consumption of the license.</p>"
    }
  },
  "CreateGrantRequest": {
    "base": null,
    "refs": {
    }
  },
  "CreateGrantResponse": {
    "base": null,
```

```
  "refs": {
  }
},
"CreateGrantVersionRequest": {
  "base": null,
  "refs": {
  }
},
"CreateGrantVersionResponse": {
  "base": null,
  "refs": {
  }
},
"CreateLicenseConfigurationRequest": {
  "base": null,
  "refs": {
  }
},
"CreateLicenseConfigurationResponse": {
  "base": null,
  "refs": {
  }
},
"CreateLicenseConversionTaskForResourceRequest": {
  "base": null,
  "refs": {
  }
},
"CreateLicenseConversionTaskForResourceResponse": {
  "base": null,
  "refs": {
  }
},
"CreateLicenseManagerReportGeneratorRequest": {
  "base": null,
  "refs": {

 }
},
"CreateLicenseManagerReportGeneratorResponse": {
  "base": null,
  "refs": {
  }
},
"CreateLicenseRequest": {
  "base": null,
  "refs": {
  }
```

```
  },
  "CreateLicenseResponse": {
    "base": null,
    "refs": {
    }
  },
  "CreateLicenseVersionRequest": {
    "base": null,
    "refs": {
    }
  },
  "CreateLicenseVersionResponse": {
    "base": null,
    "refs": {
    }
  },
  "CreateTokenRequest": {
    "base": null,
    "refs": {
    }
  },
  "CreateTokenResponse": {
    "base": null,
    "refs": {
    }
  },
  "DateTime": {
    "base": null,
    "refs": {
      "AutomatedDiscoveryInformation$LastRunTime": "<p>Time that automated discovery last ran.</p>",
      "GetLicenseConversionTaskResponse$StartTime": "<p>Time at which the license type conversion task was started .</p>",
      "GetLicenseConversionTaskResponse$LicenseConversionTime": "<p>Amount of time to complete the license type conversion.</p>",
      "GetLicenseConversionTaskResponse$EndTime": "<p>Time at which the license type conversion task was completed.</p>",
      "LicenseConfigurationAssociation$AssociationTime": "<p>Time when the license configuration was associated with the resource.</p>",
      "LicenseConfigurationUsage$AssociationTime": "<p>Time when the license configuration was initially associated with the resource.</p>",
      "LicenseConversionTask$StartTime": "<p>The time the conversion task was started at.</p>",
      "LicenseConversionTask$LicenseConversionTime": "<p>The time the usage operation value of the resource was changed.</p>",
      "LicenseConversionTask$EndTime": "<p>The time the conversion task was completed.</p>",
      "LicenseOperationFailure$FailureTime": "<p>Failure time.</p>"
    }
  },
  "DatetimeRange": {
```

```
    "base": "<p>Describes a time range, in ISO8601-UTC format.</p>",
    "refs": {
      "CreateLicenseRequest$Validity": "<p>Date
 and time range during which the license is valid, in ISO8601-UTC format.</p>",
      "CreateLicenseVersionRequest$Validity": "<p>Date and time range during which the license is valid, in
ISO8601-UTC format.</p>",
      "GrantedLicense$Validity": "<p>Date and time range during which the granted license is valid, in ISO8601-
UTC format.</p>",
      "License$Validity": "<p>Date and time range during which the license is valid, in ISO8601-UTC format.</p>"
    }
  },
  "DeleteGrantRequest": {
    "base": null,
    "refs": {
    }
  },
  "DeleteGrantResponse": {
    "base": null,
    "refs": {
    }
  },
  "DeleteLicenseConfigurationRequest": {
    "base": null,
    "refs": {
    }
  },
  "DeleteLicenseConfigurationResponse": {
    "base": null,
    "refs": {
    }
  },
  "DeleteLicenseManagerReportGeneratorRequest": {
    "base": null,
    "refs": {
    }
  },
  "DeleteLicenseManagerReportGeneratorResponse": {
    "base": null,
     "refs": {
    }
  },
  "DeleteLicenseRequest": {
    "base": null,
    "refs": {
    }
  },
  "DeleteLicenseResponse": {
    "base": null,
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    "refs": {
    }
  },
  "DeleteTokenRequest": {
    "base": null,
    "refs": {
    }
  },
  "DeleteTokenResponse": {
    "base": null,
    "refs": {
    }
  },
  "DigitalSignatureMethod": {
    "base": null,
    "refs": {
      "CheckoutBorrowLicenseRequest$DigitalSignatureMethod": "<p>Digital signature method. The possible value is JSON Web Signature (JWS) algorithm PS384. For more information, see <a href=\"https://tools.ietf.org/html/rfc7518#section-3.5\">RFC 7518 Digital Signature with RSASSA-PSS</a>.</p>"
    }
  },
  "Entitlement": {
    "base": "<p>Describes a resource entitled for use with a license.</p>",
    "refs": {
      "EntitlementList$member": null
    }
  },
  "EntitlementData": {
    "base": "<p>Data associated with an entitlement resource.</p>",

    "refs": {
      "EntitlementDataList$member": null
    }
  },
  "EntitlementDataList": {
    "base": null,
    "refs": {
      "CheckoutBorrowLicenseRequest$Entitlements": "<p>License entitlements. Partial checkouts are not supported.</p>",
      "CheckoutBorrowLicenseResponse$EntitlementsAllowed": "<p>Allowed license entitlements.</p>",
      "CheckoutLicenseRequest$Entitlements": "<p>License entitlements.</p>",
      "CheckoutLicenseResponse$EntitlementsAllowed": "<p>Allowed license entitlements.</p>"
    }
  },
  "EntitlementDataUnit": {
    "base": null,
    "refs": {
      "EntitlementData$Unit": "<p>Entitlement data unit.</p>",
```

```
    "EntitlementUsage$Unit": "<p>Entitlement usage unit.</p>"
   }
  },
  "EntitlementList": {
   "base": null,
   "refs": {
    "CreateLicenseRequest$Entitlements": "<p>License entitlements.</p>",
    "CreateLicenseVersionRequest$Entitlements": "<p>License entitlements.</p>",
    "GrantedLicense$Entitlements":
"<p>License entitlements.</p>",
    "License$Entitlements": "<p>License entitlements.</p>"
   }
  },
  "EntitlementNotAllowedException": {
   "base": "<p>The entitlement is not allowed.</p>",
   "refs": {
   }
  },
  "EntitlementUnit": {
   "base": null,
   "refs": {
    "Entitlement$Unit": "<p>Entitlement unit.</p>"
   }
  },
  "EntitlementUsage": {
   "base": "<p>Usage associated with an entitlement resource.</p>",
   "refs": {
    "EntitlementUsageList$member": null
   }
  },
  "EntitlementUsageList": {
   "base": null,
   "refs": {
    "LicenseUsage$EntitlementUsages": "<p>License entitlement usages.</p>"
   }
  },
  "ExtendLicenseConsumptionRequest": {
   "base": null,
   "refs": {
   }
  },
  "ExtendLicenseConsumptionResponse": {
   "base": null,
   "refs": {
   }
  },
  "FailedDependencyException": {
   "base": "<p>A dependency required to run the API is missing.</p>",
```

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    "refs": {
    }
  },
  "Filter": {
    "base": "<p>A filter name and value pair that is used to return more specific results from a describe operation. Filters can be used to match a set of resources by specific criteria, such as tags, attributes, or IDs.</p>",
    "refs": {
      "FilterList$member": null,
      "Filters$member": null
    }
  },
  "FilterLimitExceededException": {
    "base": "<p>The request uses too many filters or too many filter values.</p>",
    "refs": {
    }
  },
  "FilterList": {
    "base": null,
    "refs": {
      "ListDistributedGrantsRequest$Filters": "<p>Filters to scope the results. The following filters are supported:</p> <ul> <li> <p> <code>LicenseArn</code> </p> </li> <li> <p> <code>GrantStatus</code> </p> </li> <li> <p> <code>GranteePrincipalARN</code> </p> </li> <li> <p> <code>ProductSKU</code> </p> </li> <li> <p> <code>LicenseIssuerName</code> </p> </li> </ul>",
      "ListLicenseManagerReportGeneratorsRequest$Filters": "<p>Filters to scope the results. The following filters are supported: </p> <ul> <li> <p> <code>LicenseConfigurationArn</code> </p> </li> </ul>",
      "ListLicensesRequest$Filters": "<p>Filters to scope the results. The following filters are supported:</p> <ul> <li> <p> <code>Beneficiary</code> </p> </li> <li> <p> <code>ProductSKU</code> </p> </li> <li> <p> <code>Fingerprint</code> </p> </li> <li> <p> <code>Status</code> </p> </li> </ul>",
      "ListReceivedGrantsForOrganizationRequest$Filters": "<p>Filters to scope the results. The following filters are supported:</p> <ul> <li> <p> <code>ParentArn</code> </p> </li> <li> <p> <code>GranteePrincipalArn</code> </p> </li> </ul>",
      "ListReceivedGrantsRequest$Filters": "<p>Filters to scope the results. The following filters are supported:</p> <ul> <li> <p> <code>ProductSKU</code> </p> </li> <li> <p> <code>LicenseIssuerName</code> </p> </li> <li> <p> <code>LicenseArn</code> </p> </li> <li> <p> <code>GrantStatus</code> </p> </li> <li> <p> <code>GranterAccountId</code> </p> </li> </ul>",
      "ListReceivedLicensesForOrganizationRequest$Filters": "<p>Filters to scope the results. The following filters are supported:</p> <ul> <li> <p> <code>Beneficiary</code> </p> </li> <li> <p> <code>ProductSKU</code> </p> </li> </ul>",
      "ListReceivedLicensesRequest$Filters": "<p>Filters to scope the results. The following filters are supported:</p> <ul> <li> <p> <code>ProductSKU</code> </p> </li> <li> <p> <code>Status</code> </p> </li> <li> <p> <code>Fingerprint</code> </p> </li> <li> <p> <code>IssuerName</code> </p> </li> <li> <p> <code>Beneficiary</code> </p> </li> </ul>",
      "ListTokensRequest$Filters": "<p>Filters to scope the results. The following filter is supported:</p> <ul> <li> <p> <code>LicenseArns</code> </p> </li> </ul>"
    }
  },
  "FilterName": {
```

```
    "base": null,
    "refs": {
      "Filter$Name": "<p>Name of the filter. Filter names are case-sensitive.</p>"
     }
   },
   "FilterValue": {
    "base": null,
    "refs": {
      "FilterValues$member": null
    }
   },
   "FilterValues": {
    "base": null,
    "refs": {
      "Filter$Values": "<p>The value of the filter, which is case-sensitive. You can only specify one value for the filter.</p>"
    }
   },
   "Filters": {
    "base": null,
    "refs": {
      "ListLicenseConfigurationsRequest$Filters": "<p>Filters to scope the results. The following filters and logical operators are supported:</p> <ul> <li> <p> <code>licenseCountingType</code> - The dimension for which licenses are counted. Possible values are <code>vCPU</code> | <code>Instance</code> | <code>Core</code> | <code>Socket</code>. Logical operators are <code>EQUALS</code> | <code>NOT_EQUALS</code>.</p> </li> <li> <p> <code>enforceLicenseCount</code> - A Boolean value that indicates whether hard license enforcement is used. Logical operators are <code>EQUALS</code> | <code>NOT_EQUALS</code>.</p>
 </li> <li> <p> <code>usagelimitExceeded</code> - A Boolean value that indicates whether the available licenses have been exceeded. Logical operators are <code>EQUALS</code> | <code>NOT_EQUALS</code>.</p> </li> </ul>",
      "ListLicenseConversionTasksRequest$Filters": "<p> Filters to scope the results. Valid filters are <code>ResourceArns</code> and <code>Status</code>. </p>",
      "ListUsageForLicenseConfigurationRequest$Filters": "<p>Filters to scope the results. The following filters and logical operators are supported:</p> <ul> <li> <p> <code>resourceArn</code> - The ARN of the license configuration resource. Logical operators are <code>EQUALS</code> | <code>NOT_EQUALS</code>.</p> </li> <li> <p> <code>resourceType</code> - The resource type (<code>EC2_INSTANCE</code> | <code>EC2_HOST</code> | <code>EC2_AMI</code> | <code>SYSTEMS_MANAGER_MANAGED_INSTANCE</code>). Logical operators are <code>EQUALS</code> | <code>NOT_EQUALS</code>.</p> </li> <li> <p> <code>resourceAccount</code>
 - The ID of the account that owns the resource. Logical operators are <code>EQUALS</code> | <code>NOT_EQUALS</code>.</p> </li> </ul>"
    }
   },
   "GetAccessTokenRequest": {
    "base": null,
    "refs": {
    }
   },
```

```
  "GetAccessTokenResponse": {
    "base": null,
    "refs": {
    }
  },
  "GetGrantRequest": {
    "base": null,
    "refs": {
    }
  },
  "GetGrantResponse": {
    "base": null,
    "refs": {
    }
  },
  "GetLicenseConfigurationRequest": {
    "base": null,
    "refs": {
    }
  },
  "GetLicenseConfigurationResponse": {
    "base": null,
    "refs": {
    }
  },
  "GetLicenseConversionTaskRequest": {
    "base": null,
    "refs": {
    }
  },
  "GetLicenseConversionTaskResponse": {
    "base": null,
    "refs": {
    }
  },
  "GetLicenseManagerReportGeneratorRequest": {
    "base": null,
    "refs": {
    }
  },
  "GetLicenseManagerReportGeneratorResponse": {
    "base":
null,
    "refs": {
    }
  },
  "GetLicenseRequest": {
    "base": null,
```

```
    "refs": {
    }
  },
  "GetLicenseResponse": {
    "base": null,
    "refs": {
    }
  },
  "GetLicenseUsageRequest": {
    "base": null,
    "refs": {
    }
  },
  "GetLicenseUsageResponse": {
    "base": null,
    "refs": {
    }
  },
  "GetServiceSettingsRequest": {
    "base": null,
    "refs": {
    }
  },
  "GetServiceSettingsResponse": {
    "base": null,
    "refs": {
    }
  },
  "Grant": {
    "base": "<p>Describes a grant.</p>",
    "refs": {
      "GetGrantResponse$Grant": "<p>Grant details.</p>",
      "GrantList$member": null
    }
  },
  "GrantList": {
    "base": null,
    "refs": {
      "ListDistributedGrantsResponse$Grants": "<p>Distributed grant details.</p>",
      "ListReceivedGrantsForOrganizationResponse$Grants": "<p>Lists the grants the organization has
received.</p>",
      "ListReceivedGrantsResponse$Grants":
 "<p>Received grant details.</p>"
    }
  },
  "GrantStatus": {
    "base": null,
    "refs": {
```

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      "AcceptGrantResponse$Status": "<p>Grant status.</p>",
      "CreateGrantResponse$Status": "<p>Grant status.</p>",
      "CreateGrantVersionRequest$Status": "<p>Grant status.</p>",
      "CreateGrantVersionResponse$Status": "<p>Grant status.</p>",
      "DeleteGrantResponse$Status": "<p>Grant status.</p>",
      "Grant$GrantStatus": "<p>Grant status.</p>",
      "RejectGrantResponse$Status": "<p>Grant status.</p>"
    }
  },
  "GrantedLicense": {
    "base": "<p>Describes a license that is granted to a grantee.</p>",
    "refs": {
      "GrantedLicenseList$member": null
    }
  },
  "GrantedLicenseList": {
    "base": null,
    "refs": {
      "ListReceivedLicensesForOrganizationResponse$Licenses": "<p>Lists the licenses the organization has
received.</p>",
      "ListReceivedLicensesResponse$Licenses": "<p>Received license
 details.</p>"
    }
  },
  "ISO8601DateTime": {
    "base": null,
    "refs": {
      "CheckoutBorrowLicenseResponse$IssuedAt": "<p>Date and time at which the license checkout is
issued.</p>",
      "CheckoutBorrowLicenseResponse$Expiration": "<p>Date and time at which the license checkout
expires.</p>",
      "CheckoutLicenseResponse$IssuedAt": "<p>Date and time at which the license checkout is issued.</p>",
      "CheckoutLicenseResponse$Expiration": "<p>Date and time at which the license checkout expires.</p>",
      "DatetimeRange$Begin": "<p>Start of the time range.</p>",
      "DatetimeRange$End": "<p>End of the time range.</p>",
      "DeleteLicenseResponse$DeletionDate": "<p>Date when the license is deleted.</p>",
      "ExtendLicenseConsumptionResponse$Expiration": "<p>Date and time at which the license consumption
expires.</p>",
      "GrantedLicense$CreateTime": "<p>Creation time of the granted license.</p>",
      "License$CreateTime": "<p>License
 creation time.</p>",
      "TokenData$ExpirationTime": "<p>Token expiration time, in ISO8601-UTC format.</p>"
    }
  },
  "Integer": {
    "base": null,
    "refs": {
      "CreateTokenRequest$ExpirationInDays": "<p>Token expiration, in days, counted from token creation. The
```

default is 365 days. ",
"ReportFrequency$value": " Number of times within the frequency period that a report is generated. The only supported value is <code>1</code>. "
}
},
"InvalidParameterValueException": {
"base": " One or more parameter values are not valid. ",
"refs": {
}
},
"InvalidResourceStateException": {
"base": " License Manager cannot allocate a license to a resource because of its state. For example, you cannot allocate a license to an instance in the process of shutting down. ",
"refs": {
}
},
"InventoryFilter": {
"base": " An inventory filter. ",
"refs": {

"InventoryFilterList$member": null
}
},
"InventoryFilterCondition": {
"base": null,
"refs": {
"InventoryFilter$Condition": " Condition of the filter. "
}
},
"InventoryFilterList": {
"base": null,
"refs": {
"ListResourceInventoryRequest$Filters": " Filters to scope the results. The following filters and logical operators are supported: <ul> <code>account_id</code> - The ID of the Amazon Web Services account that owns the resource. Logical operators are <code>EQUALS</code> | <code>NOT_EQUALS</code>.   <code>application_name</code> - The name of the application. Logical operators are <code>EQUALS</code> | <code>BEGINS_WITH</code>.   <code>license_included</code> - The type of license included. Logical operators are <code>EQUALS</code> | <code>NOT_EQUALS</code>. Possible values are <code>sql-server-enterprise</code> | <code>sql-server-standard</code> | <code>sql-server-web</code>
| <code>windows-server-datacenter</code>.   <code>platform</code> - The platform of the resource. Logical operators are <code>EQUALS</code> | <code>BEGINS_WITH</code>.   <code>resource_id</code> - The ID of the resource. Logical operators are <code>EQUALS</code> | <code>NOT_EQUALS</code>.   <code>tag:<key></code> - The key/value combination of a tag assigned to the resource. Logical operators are <code>EQUALS</code> (single account) or <code>EQUALS</code> | <code>NOT_EQUALS</code> (cross account). "
}
},

```
  "Issuer": {
    "base": "<p>Details about the issuer of a license.</p>",
    "refs": {
      "CreateLicenseRequest$Issuer": "<p>License issuer.</p>",
      "CreateLicenseVersionRequest$Issuer": "<p>License issuer.</p>"
    }
  },
  "IssuerDetails": {
    "base": "<p>Details associated with the issuer of a license.</p>",
    "refs": {
      "GrantedLicense$Issuer": "<p>Granted
 license issuer.</p>",
      "License$Issuer": "<p>License issuer.</p>"
    }
  },
  "License": {
    "base": "<p>Software license that is managed in License Manager.</p>",
    "refs": {
      "GetLicenseResponse$License": "<p>License details.</p>",
      "LicenseList$member": null
    }
  },
  "LicenseConfiguration": {
    "base": "<p>A license configuration is an abstraction of a customer license agreement that can be consumed and
 enforced by License Manager. Components include specifications for the license type (licensing by instance, socket,
 CPU, or vCPU), allowed tenancy (shared tenancy, Dedicated Instance, Dedicated Host, or all of these), host affinity
 (how long a VM must be associated with a host), and the number of licenses purchased and used.</p>",
    "refs": {
      "LicenseConfigurations$member": null
    }
  },
  "LicenseConfigurationAssociation": {
    "base": "<p>Describes an association with a license configuration.</p>",
     "refs": {
      "LicenseConfigurationAssociations$member": null
    }
  },
  "LicenseConfigurationAssociations": {
    "base": null,
    "refs": {
      "ListAssociationsForLicenseConfigurationResponse$LicenseConfigurationAssociations": "<p>Information
 about the associations for the license configuration.</p>"
    }
  },
  "LicenseConfigurationStatus": {
    "base": null,
    "refs": {
      "UpdateLicenseConfigurationRequest$LicenseConfigurationStatus": "<p>New status of the license
```

```
configuration.</p>"
    }
  },
  "LicenseConfigurationUsage": {
    "base": "<p>Details about the usage of a resource associated with a license configuration.</p>",
    "refs": {
      "LicenseConfigurationUsageList$member": null
    }
  },
  "LicenseConfigurationUsageList": {
    "base": null,
    "refs": {
      "ListUsageForLicenseConfigurationResponse$LicenseConfigurationUsageList": "<p>Information about the
license configurations.</p>"
    }

  },
  "LicenseConfigurations": {
    "base": null,
    "refs": {
      "ListLicenseConfigurationsResponse$LicenseConfigurations": "<p>Information about the license
configurations.</p>"
    }
  },
  "LicenseConversionContext": {
    "base": "<p>Information about a license type conversion task.</p>",
    "refs": {
      "CreateLicenseConversionTaskForResourceRequest$SourceLicenseContext": "<p>Information that identifies
the license type you are converting from. For the structure of the source license, see <a
href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/conversion-procedures.html#conversion-
cli\">Convert a license type using the CLI </a> in the <i>License Manager User Guide</i>.</p>",
      "CreateLicenseConversionTaskForResourceRequest$DestinationLicenseContext": "<p>Information that
identifies the license type you are converting to. For the structure of the destination license, see <a
href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/conversion-procedures.html#conversion-
cli\">Convert
 a license type using the CLI </a> in the <i>License Manager User Guide</i>.</p>",
      "GetLicenseConversionTaskResponse$SourceLicenseContext": "<p>Information about the license type
converted from.</p>",
      "GetLicenseConversionTaskResponse$DestinationLicenseContext": "<p>Information about the license type
converted to.</p>",
      "LicenseConversionTask$SourceLicenseContext": "<p>Information about the license type this conversion task
converted from.</p>",
      "LicenseConversionTask$DestinationLicenseContext": "<p>Information about the license type this conversion
task converted to.</p>"
    }
  },
  "LicenseConversionTask": {
    "base": "<p>Information about a license type conversion task.</p>",
```

```
    "refs": {
      "LicenseConversionTasks$member": null
    }
  },
  "LicenseConversionTaskId": {
    "base": null,
    "refs": {
      "CreateLicenseConversionTaskForResourceResponse$LicenseConversionTaskId":
 "<p>The ID of the created license type conversion task.</p>",
      "GetLicenseConversionTaskRequest$LicenseConversionTaskId": "<p>ID of the license type conversion task to
retrieve information on.</p>",
      "GetLicenseConversionTaskResponse$LicenseConversionTaskId": "<p>ID of the license type conversion
task.</p>",
      "LicenseConversionTask$LicenseConversionTaskId": "<p>The ID of the license type conversion task.</p>"
    }
  },
  "LicenseConversionTaskStatus": {
    "base": null,
    "refs": {
      "GetLicenseConversionTaskResponse$Status": "<p>Status of the license type conversion task.</p>",
      "LicenseConversionTask$Status": "<p>The status of the conversion task.</p>"
    }
  },
  "LicenseConversionTasks": {
    "base": null,
    "refs": {
      "ListLicenseConversionTasksResponse$LicenseConversionTasks": "<p>Information about the license
configuration tasks for your account.</p>"
    }
  },
  "LicenseCountingType":
 {
    "base": null,
    "refs": {
      "CreateLicenseConfigurationRequest$LicenseCountingType": "<p>Dimension used to track the license
inventory.</p>",
      "GetLicenseConfigurationResponse$LicenseCountingType": "<p>Dimension for which the licenses are
counted.</p>",
      "LicenseConfiguration$LicenseCountingType": "<p>Dimension to use to track the license inventory.</p>"
    }
  },
  "LicenseDeletionStatus": {
    "base": null,
    "refs": {
      "DeleteLicenseResponse$Status": "<p>License status.</p>"
    }
  },
  "LicenseList": {
```

```
    "base": null,
    "refs": {
      "ListLicenseVersionsResponse$Licenses": "<p>License details.</p>",
      "ListLicensesResponse$Licenses": "<p>License details.</p>"
    }
  },
  "LicenseOperationFailure": {
    "base": "<p>Describes the failure of a license operation.</p>",
    "refs": {
      "LicenseOperationFailureList$member": null
    }
  },
  "LicenseOperationFailureList": {
    "base":
 null,
    "refs": {
      "ListFailuresForLicenseConfigurationOperationsResponse$LicenseOperationFailureList": "<p>License
configuration operations that failed.</p>"
    }
  },
  "LicenseSpecification": {
    "base": "<p>Details for associating a license configuration with a resource.</p>",
    "refs": {
      "LicenseSpecifications$member": null
    }
  },
  "LicenseSpecifications": {
    "base": null,
    "refs": {
      "ListLicenseSpecificationsForResourceResponse$LicenseSpecifications": "<p>License configurations
associated with a resource.</p>",
      "UpdateLicenseSpecificationsForResourceRequest$AddLicenseSpecifications": "<p>ARNs of the license
configurations to add.</p>",
      "UpdateLicenseSpecificationsForResourceRequest$RemoveLicenseSpecifications": "<p>ARNs of the license
configurations to remove.</p>"
    }
  },
  "LicenseStatus": {
    "base": null,
    "refs": {
      "CreateLicenseResponse$Status": "<p>License status.</p>",
       "CreateLicenseVersionRequest$Status": "<p>License status.</p>",
      "CreateLicenseVersionResponse$Status": "<p>License status.</p>",
      "GrantedLicense$Status": "<p>Granted license status.</p>",
      "License$Status": "<p>License status.</p>"
    }
  },
  "LicenseUsage": {
```

```
    "base": "<p>Describes the entitlement usage associated with a license.</p>",
    "refs": {
      "GetLicenseUsageResponse$LicenseUsage": "<p>License usage details.</p>"
    }
  },
  "LicenseUsageException": {
    "base": "<p>You do not have enough licenses available to support a new resource launch.</p>",
    "refs": {
    }
  },
  "ListAssociationsForLicenseConfigurationRequest": {
    "base": null,
    "refs": {
    }
  },
  "ListAssociationsForLicenseConfigurationResponse": {
    "base": null,
    "refs": {
    }
  },
  "ListDistributedGrantsRequest": {
    "base": null,
    "refs": {
    }
  },
  "ListDistributedGrantsResponse":
{
    "base": null,
    "refs": {
    }
  },
  "ListFailuresForLicenseConfigurationOperationsRequest": {
    "base": null,
    "refs": {
    }
  },
  "ListFailuresForLicenseConfigurationOperationsResponse": {
    "base": null,
    "refs": {
    }
  },
  "ListLicenseConfigurationsRequest": {
    "base": null,
    "refs": {
    }
  },
  "ListLicenseConfigurationsResponse": {
    "base": null,
```

```
    "refs": {
    }
  },
  "ListLicenseConversionTasksRequest": {
    "base": null,
    "refs": {
    }
  },
  "ListLicenseConversionTasksResponse": {
    "base": null,
    "refs": {
    }
  },
  "ListLicenseManagerReportGeneratorsRequest": {
    "base": null,
    "refs": {
    }
  },
  "ListLicenseManagerReportGeneratorsResponse": {
    "base": null,
    "refs": {
    }
  },
  "ListLicenseSpecificationsForResourceRequest": {
    "base": null,
    "refs": {
    }
  },
  "ListLicenseSpecificationsForResourceResponse":
{
    "base": null,
    "refs": {
    }
  },
  "ListLicenseVersionsRequest": {
    "base": null,
    "refs": {
    }
  },
  "ListLicenseVersionsResponse": {
    "base": null,
    "refs": {
    }
  },
  "ListLicensesRequest": {
    "base": null,
    "refs": {
    }
```

```
  },
  "ListLicensesResponse": {
    "base": null,
    "refs": {
    }
  },
  "ListReceivedGrantsForOrganizationRequest": {
    "base": null,
    "refs": {
    }
  },
  "ListReceivedGrantsForOrganizationResponse": {
    "base": null,
    "refs": {
    }
  },
  "ListReceivedGrantsRequest": {
    "base": null,
    "refs": {
    }
  },
  "ListReceivedGrantsResponse": {
    "base": null,
    "refs": {
    }
  },
  "ListReceivedLicensesForOrganizationRequest": {
    "base": null,
    "refs": {
    }
  },
  "ListReceivedLicensesForOrganizationResponse": {
    "base": null,
    "refs": {
    }
  },
  "ListReceivedLicensesRequest":
{
    "base": null,
    "refs": {
    }
  },
  "ListReceivedLicensesResponse": {
    "base": null,
    "refs": {
    }
  },
  "ListResourceInventoryRequest": {
```

```
    "base": null,
    "refs": {
    }
  },
  "ListResourceInventoryResponse": {
    "base": null,
    "refs": {
    }
  },
  "ListTagsForResourceRequest": {
    "base": null,
    "refs": {
    }
  },
  "ListTagsForResourceResponse": {
    "base": null,
    "refs": {
    }
  },
  "ListTokensRequest": {
    "base": null,
    "refs": {
    }
  },
  "ListTokensResponse": {
    "base": null,
    "refs": {
    }
  },
  "ListUsageForLicenseConfigurationRequest": {
    "base": null,
    "refs": {
    }
  },
  "ListUsageForLicenseConfigurationResponse": {
    "base": null,
    "refs": {
    }
  },
  "Location": {
    "base": null,
    "refs": {
      "RedirectException$Location": null
    }
  },
  "Long":
{
    "base": null,
```

```
    "refs": {
      "Entitlement$MaxCount": "<p>Maximum entitlement count. Use if the unit is not None.</p>"
    }
  },
  "ManagedResourceSummary": {
    "base": "<p>Summary information about a managed resource.</p>",
    "refs": {
      "ManagedResourceSummaryList$member": null
    }
  },
  "ManagedResourceSummaryList": {
    "base": null,
    "refs": {
      "GetLicenseConfigurationResponse$ManagedResourceSummaryList": "<p>Summaries of the managed resources.</p>",
      "LicenseConfiguration$ManagedResourceSummaryList": "<p>Summaries for managed resources.</p>"
    }
  },
  "MaxSize100": {
    "base": null,
    "refs": {
      "ListDistributedGrantsRequest$MaxResults": "<p>Maximum number of results to return in a single call.</p>",
      "ListLicenseManagerReportGeneratorsRequest$MaxResults": "<p>Maximum number of results to return in a single call.</p>",
      "ListLicenseVersionsRequest$MaxResults": "<p>Maximum
 number of results to return in a single call.</p>",
      "ListLicensesRequest$MaxResults": "<p>Maximum number of results to return in a single call.</p>",
      "ListReceivedGrantsForOrganizationRequest$MaxResults": "<p>Maximum number of results to return in a single call.</p>",
      "ListReceivedGrantsRequest$MaxResults": "<p>Maximum number of results to return in a single call.</p>",
      "ListReceivedLicensesForOrganizationRequest$MaxResults": "<p>Maximum number of results to return in a single call.</p>",
      "ListReceivedLicensesRequest$MaxResults": "<p>Maximum number of results to return in a single call.</p>",
      "ListTokensRequest$MaxResults": "<p>Maximum number of results to return in a single call.</p>"
    }
  },
  "MaxSize3StringList": {
    "base": null,
    "refs": {
      "CreateTokenRequest$TokenProperties": "<p>Data specified by the caller to be included in the JWT token. The data is mapped to the amr claim of the JWT token.</p>",

    "GetAccessTokenRequest$TokenProperties": "<p>Token properties to validate against those present in the JWT token.</p>",
      "TokenData$TokenProperties": "<p>Data specified by the caller.</p>"
    }
  },
  "Message": {
```

```
    "base": null,
    "refs": {
      "AccessDeniedException$Message": null,
      "AuthorizationException$Message": null,
      "ConflictException$Message": null,
      "EntitlementNotAllowedException$Message": null,
      "FailedDependencyException$Message": null,
      "FilterLimitExceededException$Message": null,
      "InvalidParameterValueException$Message": null,
      "InvalidResourceStateException$Message": null,
      "LicenseUsageException$Message": null,
      "NoEntitlementsAllowedException$Message": null,
      "RateLimitExceededException$Message": null,
      "RedirectException$Message": null,
      "ResourceLimitExceededException$Message": null,
      "ResourceNotFoundException$Message": null,
      "ServerInternalException$Message":
  null,
      "UnsupportedDigitalSignatureMethodException$Message": null,
      "ValidationException$Message": null
    }
  },
  "Metadata": {
    "base": "<p>Describes key/value pairs.</p>",
    "refs": {
      "MetadataList$member": null
    }
  },
  "MetadataList": {
    "base": null,
    "refs": {
      "CheckoutBorrowLicenseRequest$CheckoutMetadata": "<p>Information about constraints.</p>",
      "CheckoutBorrowLicenseResponse$CheckoutMetadata": "<p>Information about constraints.</p>",
      "CreateLicenseRequest$LicenseMetadata": "<p>Information about the license.</p>",
      "CreateLicenseVersionRequest$LicenseMetadata": "<p>Information about the license.</p>",
      "GrantedLicense$LicenseMetadata": "<p>Granted license metadata.</p>",
      "License$LicenseMetadata": "<p>License metadata.</p>",
      "LicenseOperationFailure$MetadataList": "<p>Reserved.</p>"
    }
  },
  "NoEntitlementsAllowedException": {

    "base": "<p>There are no entitlements found for this license, or the entitlement maximum count is reached.</p>",
    "refs": {
    }
  },
  "Options": {
    "base": "<p>The options you can specify when you create a new version of a grant, such as activation override
```

behavior. For more information, see Granted licenses in License Manager in the License Manager User Guide. ",
    "refs": {
      "CreateGrantVersionRequest$Options": " The options specified for the grant. ",
      "Grant$Options": " The options specified for the grant. "
    }
  },
  "OrganizationConfiguration": {
    "base": " Configuration information for Organizations. ",
    "refs": {
      "GetServiceSettingsResponse$OrganizationConfiguration": " Indicates whether Organizations is integrated with License Manager for cross-account discovery. ",
      "UpdateServiceSettingsRequest$OrganizationConfiguration":
 " Enables integration with Organizations for cross-account discovery. "
    }
  },
  "PrincipalArnList": {
    "base": null,
    "refs": {
      "CreateGrantRequest$Principals": " The grant principals. You can specify one of the following as an Amazon Resource Name (ARN): <ul> An Amazon Web Services account, which includes only the account specified.   An organizational unit (OU), which includes all accounts in the OU.   An organization, which will include all accounts across your organization. "
    }
  },
  "ProductInformation": {
    "base": " Describes product information for a license configuration. ",
    "refs": {
      "ProductInformationList$member": null
    }
  },
  "ProductInformationFilter": {
    "base": " Describes product information filters. ",
    "refs": {
      "ProductInformationFilterList$member":
 null
    }
  },
  "ProductInformationFilterList": {
    "base": null,
    "refs": {
      "ProductInformation$ProductInformationFilterList": " A Product information filter consists of a <code>ProductInformationFilterComparator</code> which is a logical operator, a <code>ProductInformationFilterName</code> which specifies the type of filter being declared, and a <code>ProductInformationFilterValue</code> that specifies the value to filter on. Accepted values for <code>ProductInformationFilterName</code> are listed here along with descriptions and valid options for

<code>ProductInformationFilterComparator</code>. The following filters and are supported when the resource type is <code>SSM_MANAGED</code>: <ul> <code>Application Name</code> - The name of the application. Logical operator is <code>EQUALS</code>.   <code>Application Publisher</code> - The publisher of the application. Logical operator is <code>EQUALS</code>.   <code>Application Version</code> - The version of the application. Logical operator is <code>EQUALS</code>.   <code>Platform Name</code> - The name of the platform. Logical operator is <code>EQUALS</code>.   <code>Platform Type</code> - The platform type. Logical operator is <code>EQUALS</code>.   <code>Tag:key</code> - The key of a tag attached to an Amazon Web Services resource you wish to exclude from automated discovery. Logical operator is <code>NOT_EQUALS</code>. The key for your tag must be appended to <code>Tag:</code> following the example: <code>Tag:name-of-your-key</code>. <code>ProductInformationFilterValue</code> is optional if you are not using values for the key.   <code>AccountId</code> - The 12-digit ID of an Amazon Web Services account you wish to exclude from automated discovery. Logical operator is <code>NOT_EQUALS</code>.   <code>License Included</code> - The type of license included. Logical operators are <code>EQUALS</code> and <code>NOT_EQUALS</code>. Possible values are: <code>sql-server-enterprise</code> | <code>sql-server-standard</code> | <code>sql-server-web</code> | <code>windows-server-datacenter</code>.   The following filters and logical operators are supported when the resource type is <code>RDS</code>: <ul> <code>Engine Edition</code> - The edition of the database engine. Logical operator is <code>EQUALS</code>. Possible values are: <code>oracle-ee</code> | <code>oracle-se</code> | <code>oracle-se1</code> | <code>oracle-se2</code>.   <code>License Pack</code> - The license pack. Logical operator is <code>EQUALS</code>. Possible values are: <code>data guard</code> | <code>diagnostic pack sqlt</code> | <code>tuning pack sqlt</code> | <code>ols</code> | <code>olap</code>. "
    }
  },
  "ProductInformationList": {
    "base": null,
    "refs": {
      "CreateLicenseConfigurationRequest$ProductInformationList":
" Product information. ",
      "GetLicenseConfigurationResponse$ProductInformationList": " Product information. ",
      "LicenseConfiguration$ProductInformationList": " Product information. ",
      "UpdateLicenseConfigurationRequest$ProductInformationList": " New product information. "
    }
  },
  "ProvisionalConfiguration": {
    "base": " Details about a provisional configuration. ",
    "refs": {
      "ConsumptionConfiguration$ProvisionalConfiguration": " Details about a provisional configuration. "
    }
  },
  "RateLimitExceededException": {
    "base": " Too many requests have been submitted. Try again after a brief wait. ",
    "refs": {
    }
  },
  "ReceivedMetadata": {
    "base": " Metadata associated with received licenses and grants. ",

```
    "refs": {
      "GrantedLicense$ReceivedMetadata": "<p>Granted license received metadata.</p>"
     }
   },
   "ReceivedStatus": {
    "base": null,
    "refs": {
      "ReceivedMetadata$ReceivedStatus": "<p>Received status.</p>"
    }
   },
   "RedirectException": {
    "base": "<p>This is not the correct Region for the resource. Try again.</p>",
    "refs": {
    }
   },
   "RejectGrantRequest": {
    "base": null,
    "refs": {
    }
   },
   "RejectGrantResponse": {
    "base": null,
    "refs": {
    }
   },
   "RenewType": {
    "base": null,
    "refs": {
      "ConsumptionConfiguration$RenewType": "<p>Renewal frequency.</p>"
    }
   },
   "ReportContext": {
    "base": "<p>Details of the license configuration that this generator reports on.</p>",
    "refs": {
      "CreateLicenseManagerReportGeneratorRequest$ReportContext": "<p>Defines the type of license
configuration the report generator tracks.</p>",
      "ReportGenerator$ReportContext": "<p>License configuration type for this generator.</p>",
      "UpdateLicenseManagerReportGeneratorRequest$ReportContext":
 "<p>The report context.</p>"
    }
   },
   "ReportFrequency": {
    "base": "<p>Details about how frequently reports are generated.</p>",
    "refs": {
      "CreateLicenseManagerReportGeneratorRequest$ReportFrequency": "<p>Frequency by which reports are
generated. Reports can be generated daily, monthly, or weekly.</p>",
      "ReportGenerator$ReportFrequency": "<p>Details about how frequently reports are generated.</p>",
      "UpdateLicenseManagerReportGeneratorRequest$ReportFrequency": "<p>Frequency by which reports are
```

```
generated.</p>"
    }
  },
  "ReportFrequencyType": {
    "base": null,
    "refs": {
      "ReportFrequency$period": "<p>Time period between each report. The period can be daily, weekly, or monthly.</p>"
    }
  },
  "ReportGenerator": {
    "base": "<p>Describe the details of a report generator.</p>",
    "refs": {
      "GetLicenseManagerReportGeneratorResponse$ReportGenerator":
 "<p>A report generator that creates periodic reports about your license configurations.</p>",
      "ReportGeneratorList$member": null
    }
  },
  "ReportGeneratorList": {
    "base": null,
    "refs": {
      "ListLicenseManagerReportGeneratorsResponse$ReportGenerators": "<p>A report generator that creates periodic reports about your license configurations.</p>"
    }
  },
  "ReportGeneratorName": {
    "base": null,
    "refs": {
      "CreateLicenseManagerReportGeneratorRequest$ReportGeneratorName": "<p>Name of the report generator.</p>",
      "UpdateLicenseManagerReportGeneratorRequest$ReportGeneratorName": "<p>Name of the report generator.</p>"
    }
  },
  "ReportType": {
    "base": null,
    "refs": {
      "ReportTypeList$member": null
    }
  },
  "ReportTypeList": {
    "base": null,
    "refs": {
      "CreateLicenseManagerReportGeneratorRequest$Type": "<p>Type of reports to generate. The following report types an
 be generated:</p> <ul> <li> <p>License configuration report - Reports the number and details of consumed licenses for a license configuration.</p> </li> <li> <p>Resource report - Reports the tracked licenses and resource consumption for a license configuration.</p> </li> </ul>",
```

```
      "ReportGenerator$ReportType": "<p>Type of reports that are generated.</p>",
      "UpdateLicenseManagerReportGeneratorRequest$Type": "<p>Type of reports to generate. The following report types are supported:</p> <ul> <li> <p>License configuration report - Reports the number and details of consumed licenses for a license configuration.</p> </li> <li> <p>Resource report - Reports the tracked licenses and resource consumption for a license configuration.</p> </li> </ul>"
    }
  },
  "ResourceInventory": {
    "base": "<p>Details about a resource.</p>",
    "refs": {
      "ResourceInventoryList$member": null
    }
  },
  "ResourceInventoryList": {
    "base": null,
    "refs": {
      "ListResourceInventoryResponse$ResourceInventoryList": "<p>Information about the resources.</p>"
    }
  },
  "ResourceLimitExceededException": {
    "base": "<p>Your resource limits have been exceeded.</p>",
    "refs": {
    }
  },
  "ResourceNotFoundException": {
    "base": "<p>The resource cannot be found.</p>",
    "refs": {
    }
  },
  "ResourceType": {
    "base": null,
    "refs": {
      "ConsumedLicenseSummary$ResourceType": "<p>Resource type of the resource consuming a license.</p>",
      "LicenseConfigurationAssociation$ResourceType": "<p>Type of server resource.</p>",
      "LicenseConfigurationUsage$ResourceType": "<p>Type of resource.</p>",
      "LicenseOperationFailure$ResourceType": "<p>Resource type.</p>",
      "ManagedResourceSummary$ResourceType": "<p>Type of resource associated with a license.</p>",
      "ResourceInventory$ResourceType": "<p>Type of resource.</p>"
    }
  },
  "S3Location": {
    "base":
 "<p>Details of the S3 bucket that report generator reports are published to.</p>",
    "refs": {
      "ReportGenerator$S3Location": "<p>Details of the S3 bucket that report generator reports are published to.</p>"
    }
  },
```

```
  "ServerInternalException": {
    "base": "<p>The server experienced an internal error. Try again.</p>",
    "refs": {
    }
  },
  "SignedToken": {
    "base": null,
    "refs": {
      "CheckoutBorrowLicenseResponse$SignedToken": "<p>Signed token.</p>",
      "CheckoutLicenseResponse$SignedToken": "<p>Signed token.</p>"
    }
  },
  "StatusReasonMessage": {
    "base": null,
    "refs": {
      "CreateGrantVersionRequest$StatusReason": "<p>Grant status reason.</p>",
      "DeleteGrantRequest$StatusReason": "<p>The Status reason for the delete request.</p>",
      "Grant$StatusReason": "<p>Grant status reason.</p>",
      "ReceivedMetadata$ReceivedStatusReason": "<p>Received status reason.</p>"
    }
  },

 "String": {
    "base": null,
    "refs": {
      "AcceptGrantResponse$Version": "<p>Grant version.</p>",
      "CheckInLicenseRequest$LicenseConsumptionToken": "<p>License consumption token.</p>",
      "CheckInLicenseRequest$Beneficiary": "<p>License beneficiary.</p>",
      "CheckoutBorrowLicenseRequest$NodeId": "<p>Node ID.</p>",
      "CheckoutBorrowLicenseResponse$LicenseConsumptionToken": "<p>License consumption token.</p>",
      "CheckoutBorrowLicenseResponse$NodeId": "<p>Node ID.</p>",
      "CheckoutLicenseRequest$ProductSKU": "<p>Product SKU.</p>",
      "CheckoutLicenseRequest$KeyFingerprint": "<p>Key fingerprint identifying the license.</p>",
      "CheckoutLicenseRequest$Beneficiary": "<p>License beneficiary.</p>",
      "CheckoutLicenseRequest$NodeId": "<p>Node ID.</p>",
      "CheckoutLicenseResponse$LicenseConsumptionToken": "<p>License consumption token.</p>",
      "CheckoutLicenseResponse$NodeId": "<p>Node ID.</p>",
      "CheckoutLicenseResponse$LicenseArn":
"<p>Amazon Resource Name (ARN) of the checkout license.</p>",
      "CreateGrantRequest$GrantName": "<p>Grant name.</p>",
      "CreateGrantRequest$HomeRegion": "<p>Home Region of the grant.</p>",
      "CreateGrantResponse$Version": "<p>Grant version.</p>",
      "CreateGrantVersionRequest$GrantName": "<p>Grant name.</p>",
      "CreateGrantVersionRequest$SourceVersion": "<p>Current version of the grant.</p>",
      "CreateGrantVersionResponse$Version": "<p>New version of the grant.</p>",
      "CreateLicenseConfigurationRequest$Name": "<p>Name of the license configuration.</p>",
      "CreateLicenseConfigurationRequest$Description": "<p>Description of the license configuration.</p>",
      "CreateLicenseConfigurationResponse$LicenseConfigurationArn": "<p>Amazon Resource Name (ARN) of the
```

```
license configuration.</p>",
    "CreateLicenseManagerReportGeneratorRequest$Description": "<p>Description of the report generator.</p>",
    "CreateLicenseManagerReportGeneratorResponse$LicenseManagerReportGeneratorArn":
"<p>The Amazon Resource Name (ARN) of the new report generator.</p>",
    "CreateLicenseRequest$LicenseName": "<p>License name.</p>",
    "CreateLicenseRequest$ProductName": "<p>Product name.</p>",
    "CreateLicenseRequest$ProductSKU": "<p>Product SKU.</p>",
    "CreateLicenseRequest$HomeRegion": "<p>Home Region for the license.</p>",
    "CreateLicenseRequest$Beneficiary": "<p>License beneficiary.</p>",
    "CreateLicenseResponse$Version": "<p>License version.</p>",
    "CreateLicenseVersionRequest$LicenseName": "<p>License name.</p>",
    "CreateLicenseVersionRequest$ProductName": "<p>Product name.</p>",
    "CreateLicenseVersionRequest$HomeRegion": "<p>Home Region of the license.</p>",
    "CreateLicenseVersionRequest$SourceVersion": "<p>Current version of the license.</p>",
    "CreateLicenseVersionResponse$Version": "<p>New version of the license.</p>",
    "CreateTokenResponse$TokenId":
"<p>Token ID.</p>",
    "DeleteGrantRequest$Version": "<p>Current version of the grant.</p>",
    "DeleteGrantResponse$Version": "<p>Grant version.</p>",
    "DeleteLicenseConfigurationRequest$LicenseConfigurationArn": "<p>ID of the license configuration.</p>",
    "DeleteLicenseManagerReportGeneratorRequest$LicenseManagerReportGeneratorArn": "<p>Amazon
Resource Name (ARN) of the report generator to be deleted.</p>",
    "DeleteLicenseRequest$SourceVersion": "<p>Current version of the license.</p>",
    "DeleteTokenRequest$TokenId": "<p>Token ID.</p>",
    "Entitlement$Name": "<p>Entitlement name.</p>",
    "Entitlement$Value": "<p>Entitlement resource. Use only if the unit is None.</p>",
    "EntitlementData$Name": "<p>Entitlement data name.</p>",
    "EntitlementData$Value": "<p>Entitlement data value.</p>",
    "EntitlementUsage$Name": "<p>Entitlement usage name.</p>",
    "EntitlementUsage$ConsumedValue":
"<p>Resource usage consumed.</p>",
    "EntitlementUsage$MaxCount": "<p>Maximum entitlement usage count.</p>",
    "ExtendLicenseConsumptionRequest$LicenseConsumptionToken": "<p>License consumption token.</p>",
    "ExtendLicenseConsumptionResponse$LicenseConsumptionToken": "<p>License consumption token.</p>",
    "FailedDependencyException$ErrorCode": null,
    "GetGrantRequest$Version": "<p>Grant version.</p>",
    "GetLicenseConfigurationRequest$LicenseConfigurationArn": "<p>Amazon Resource Name (ARN) of the
license configuration.</p>",
    "GetLicenseConfigurationResponse$LicenseConfigurationId": "<p>Unique ID for the license
configuration.</p>",
    "GetLicenseConfigurationResponse$LicenseConfigurationArn": "<p>Amazon Resource Name (ARN) of the
license configuration.</p>",
    "GetLicenseConfigurationResponse$Name": "<p>Name of the license configuration.</p>",
    "GetLicenseConfigurationResponse$Description": "<p>Description of the license
configuration.</p>",
    "GetLicenseConfigurationResponse$Status": "<p>License configuration status.</p>",
    "GetLicenseConfigurationResponse$OwnerAccountId": "<p>Account ID of the owner of the license
configuration.</p>",
```

"GetLicenseConversionTaskResponse$ResourceArn": " Amazon Resource Names (ARN) of the resources the license conversion task is associated with. ",

"GetLicenseConversionTaskResponse$StatusMessage": " The status message for the conversion task. ",

"GetLicenseManagerReportGeneratorRequest$LicenseManagerReportGeneratorArn": " Amazon Resource Name (ARN) of the report generator. ",

"GetLicenseRequest$Version": " License version. ",

"GetServiceSettingsResponse$S3BucketArn": " Regional S3 bucket path for storing reports, license trail event data, discovery data, and so on. ",

"GetServiceSettingsResponse$SnsTopicArn": " SNS topic configured to receive notifications from License Manager. ",

"GetServiceSettingsResponse$LicenseManagerResourceShareArn": " Amazon Resource Name (ARN) of the resource share. The License Manager management account provides member accounts with access to this share. ",

"Grant$GrantName": " Grant name. ",

"Grant$HomeRegion": " Home Region of the grant. ",

"Grant$Version": " Grant version. ",

"GrantedLicense$LicenseName": " License name. ",

"GrantedLicense$ProductName": " Product name. ",

"GrantedLicense$ProductSKU": " Product SKU. ",

"GrantedLicense$HomeRegion": " Home Region of the granted license. ",

"GrantedLicense$Beneficiary": " Granted license beneficiary. ",

"GrantedLicense$Version": " Version of the granted license. ",

"InventoryFilter$Name": " Name of the filter. ",

"InventoryFilter$Value": " Value of the filter. ",

"Issuer$Name": " Issuer name. ",

"Issuer$SignKey":
" Asymmetric KMS key from Key Management Service. The KMS key must have a key usage of sign and verify, and support the RSASSA-PSS SHA-256 signing algorithm. ",

"IssuerDetails$Name": " Issuer name. ",

"IssuerDetails$SignKey": " Asymmetric KMS key from Key Management Service. The KMS key must have a key usage of sign and verify, and support the RSASSA-PSS SHA-256 signing algorithm. ",

"IssuerDetails$KeyFingerprint": " Issuer key fingerprint. ",

"License$LicenseName": " License name. ",

"License$ProductName": " Product name. ",

"License$ProductSKU": " Product SKU. ",

"License$HomeRegion": " Home Region of the license. ",

"License$Beneficiary": " License beneficiary. ",

"License$Version": " License version. ",

"LicenseConfiguration$LicenseConfigurationId": " Unique ID of the license configuration. ",

"LicenseConfiguration$LicenseConfigurationArn":
" Amazon Resource Name (ARN) of the license configuration. ",

"LicenseConfiguration$Name": " Name of the license configuration. ",

"LicenseConfiguration$Description": " Description of the license configuration. ",

"LicenseConfiguration$Status": " Status of the license configuration. ",

"LicenseConfiguration$OwnerAccountId": " Account ID of the license configuration's owner. ",

"LicenseConfigurationAssociation$ResourceArn": " Amazon Resource Name (ARN) of the resource. ",

"LicenseConfigurationAssociation$ResourceOwnerId": " ID of the Amazon Web Services account that owns the resource consuming licenses. ",

"LicenseConfigurationAssociation$AmiAssociationScope": " Scope of AMI associations. The possible value is <code>cross-account</code>. ",
"LicenseConfigurationUsage$ResourceArn": " Amazon Resource Name (ARN) of the resource. ",
"LicenseConfigurationUsage$ResourceStatus":
" Status of the resource. ",
"LicenseConfigurationUsage$ResourceOwnerId": " ID of the account that owns the resource. ",
"LicenseConversionTask$ResourceArn": " The Amazon Resource Name (ARN) of the resource associated with the license type conversion task. ",
"LicenseConversionTask$StatusMessage": " The status message for the conversion task. ",
"LicenseOperationFailure$ResourceArn": " Amazon Resource Name (ARN) of the resource. ",
"LicenseOperationFailure$ErrorMessage": " Error message. ",
"LicenseOperationFailure$OperationName": " Name of the operation. ",
"LicenseOperationFailure$ResourceOwnerId": " ID of the Amazon Web Services account that owns the resource. ",
"LicenseOperationFailure$OperationRequestedBy": " The requester is \"License Manager Automated Discovery\". ",
"LicenseSpecification$LicenseConfigurationArn": " Amazon Resource Name (ARN) of the license configuration. ",
"LicenseSpecification$AmiAssociationScope": " Scope of AMI associations. The possible value is <code>cross-account</code>. ",
"ListAssociationsForLicenseConfigurationRequest$LicenseConfigurationArn": " Amazon Resource Name (ARN) of a license configuration. ",
"ListAssociationsForLicenseConfigurationRequest$NextToken": " Token for the next set of results. ",
"ListAssociationsForLicenseConfigurationResponse$NextToken": " Token for the next set of results. ",
"ListDistributedGrantsRequest$NextToken": " Token for the next set of results. ",
"ListDistributedGrantsResponse$NextToken": " Token for the next set of results. ",
"ListFailuresForLicenseConfigurationOperationsRequest$LicenseConfigurationArn": " Amazon Resource Name of the license configuration. ",
"ListFailuresForLicenseConfigurationOperationsRequest$NextToken": " Token for the next set of results. ",

"ListFailuresForLicenseConfigurationOperationsResponse$NextToken": " Token for the next set of results. ",
"ListLicenseConfigurationsRequest$NextToken": " Token for the next set of results. ",
"ListLicenseConfigurationsResponse$NextToken": " Token for the next set of results. ",
"ListLicenseConversionTasksRequest$NextToken": " Token for the next set of results. ",
"ListLicenseConversionTasksResponse$NextToken": " Token for the next set of results. ",
"ListLicenseManagerReportGeneratorsRequest$NextToken": " Token for the next set of results. ",
"ListLicenseManagerReportGeneratorsResponse$NextToken": " Token for the next set of results. ",
"ListLicenseSpecificationsForResourceRequest$ResourceArn": " Amazon Resource Name (ARN) of a resource that has an associated license configuration. ",
"ListLicenseSpecificationsForResourceRequest$NextToken": " Token for the next set of results. ",
"ListLicenseSpecificationsForResourceResponse$NextToken": " Token for the next set of results. ",
"ListLicenseVersionsRequest$NextToken": " Token for the next set of results. ",
"ListLicenseVersionsResponse$NextToken": " Token for the next set of results. ",
"ListLicensesRequest$NextToken": " Token for the next set of results. ",
"ListLicensesResponse$NextToken": " Token for the next set of results. ",
"ListReceivedGrantsForOrganizationRequest$NextToken": " Token for the next set of results. ",

```
"ListReceivedGrantsForOrganizationResponse$NextToken": "<p>Token for the next set of results.</p>",
"ListReceivedGrantsRequest$NextToken": "<p>Token for the next set of results.</p>",
"ListReceivedGrantsResponse$NextToken": "<p>Token for the next set of results.</p>",
"ListReceivedLicensesForOrganizationRequest$NextToken": "<p>Token for the next set of results.</p>",
"ListReceivedLicensesForOrganizationResponse$NextToken":
"<p>Token for the next set of results.</p>",
"ListReceivedLicensesRequest$NextToken": "<p>Token for the next set of results.</p>",
"ListReceivedLicensesResponse$NextToken": "<p>Token for the next set of results.</p>",
"ListResourceInventoryRequest$NextToken": "<p>Token for the next set of results.</p>",
"ListResourceInventoryResponse$NextToken": "<p>Token for the next set of results.</p>",
"ListTagsForResourceRequest$ResourceArn": "<p>Amazon Resource Name (ARN) of the license
configuration.</p>",
"ListTokensRequest$NextToken": "<p>Token for the next set of results.</p>",
"ListTokensResponse$NextToken": "<p>Token for the next set of results.</p>",
"ListUsageForLicenseConfigurationRequest$LicenseConfigurationArn": "<p>Amazon Resource Name (ARN)
of the license configuration.</p>",
"ListUsageForLicenseConfigurationRequest$NextToken": "<p>Token for the next set of results.</p>",
"ListUsageForLicenseConfigurationResponse$NextToken": "<p>Token for the next set of results.</p>",
"MaxSize3StringList$member": null,
"Metadata$Name": "<p>The key name.</p>",
"Metadata$Value": "<p>The value.</p>",
"ProductInformation$ResourceType": "<p>Resource type. The possible values are
<code>SSM_MANAGED</code> | <code>RDS</code>.</p>",
"ProductInformationFilter$ProductInformationFilterName": "<p>Filter name.</p>",
"ProductInformationFilter$ProductInformationFilterComparator": "<p>Logical operator.</p>",
"RejectGrantResponse$Version": "<p>Grant version.</p>",
"ReportGenerator$ReportGeneratorName": "<p>Name of the report generator.</p>",
"ReportGenerator$LicenseManagerReportGeneratorArn": "<p>Amazon Resource Name (ARN) of the report
generator.</p>",
"ReportGenerator$LastRunStatus": "<p>Status of the last report generation attempt.</p>",
"ReportGenerator$LastRunFailureReason": "<p>Failure
message for the last report generation attempt.</p>",
"ReportGenerator$LastReportGenerationTime": "<p>Time the last report was generated at.</p>",
"ReportGenerator$ReportCreatorAccount": "<p>The Amazon Web Services account ID used to create the
report generator.</p>",
"ReportGenerator$Description": "<p>Description of the report generator.</p>",
"ReportGenerator$CreateTime": "<p>Time the report was created.</p>",
"ResourceInventory$ResourceId": "<p>ID of the resource.</p>",
"ResourceInventory$ResourceArn": "<p>Amazon Resource Name (ARN) of the resource.</p>",
"ResourceInventory$Platform": "<p>Platform of the resource.</p>",
"ResourceInventory$PlatformVersion": "<p>Platform version of the resource in the inventory.</p>",
"ResourceInventory$ResourceOwningAccountId": "<p>ID of the account that owns the resource.</p>",
"S3Location$bucket": "<p>Name of the S3 bucket reports are published to.</p>",

"S3Location$keyPrefix": "<p>Prefix of the S3 bucket reports are published to.</p>",
"StringList$member": null,
"Tag$Key": "<p>Tag key.</p>",
"Tag$Value": "<p>Tag value.</p>",
```

```
    "TagKeyList$member": null,
    "TagResourceRequest$ResourceArn": "<p>Amazon Resource Name (ARN) of the license configuration.</p>",
    "TokenData$TokenId": "<p>Token ID.</p>",
    "TokenData$TokenType": "<p>Type of token generated. The supported value is
<code>REFRESH_TOKEN</code>.</p>",
    "TokenData$LicenseArn": "<p>Amazon Resource Name (ARN) of the license.</p>",
    "TokenData$Status": "<p>Token status. The possible values are <code>AVAILABLE</code> and
<code>DELETED</code>.</p>",
    "UntagResourceRequest$ResourceArn": "<p>Amazon Resource Name (ARN) of the license
configuration.</p>",
    "UpdateLicenseConfigurationRequest$LicenseConfigurationArn": "<p>Amazon Resource Name (ARN) of the
license configuration.</p>",
    "UpdateLicenseConfigurationRequest$Name":
 "<p>New name of the license configuration.</p>",
    "UpdateLicenseConfigurationRequest$Description": "<p>New description of the license configuration.</p>",
    "UpdateLicenseManagerReportGeneratorRequest$LicenseManagerReportGeneratorArn": "<p>Amazon
Resource Name (ARN) of the report generator to update.</p>",
    "UpdateLicenseManagerReportGeneratorRequest$Description": "<p>Description of the report generator.</p>",
    "UpdateLicenseSpecificationsForResourceRequest$ResourceArn": "<p>Amazon Resource Name (ARN) of the
Amazon Web Services resource.</p>",
    "UpdateServiceSettingsRequest$S3BucketArn": "<p>Amazon Resource Name (ARN) of the Amazon S3
bucket where the License Manager information is stored.</p>",
    "UpdateServiceSettingsRequest$SnsTopicArn": "<p>Amazon Resource Name (ARN) of the Amazon SNS
topic used for License Manager alerts.</p>"
   }
  },
  "StringList": {
   "base": null,
   "refs": {
    "CreateLicenseConfigurationRequest$LicenseRules":
 "<p>License rules. The syntax is #name=value (for example, #allowedTenancy=EC2-DedicatedHost). The
available rules vary by dimension, as follows.</p> <ul> <li> <p> <code>Cores</code> dimension:
<code>allowedTenancy</code> | <code>licenseAffinityToHost</code> | <code>maximumCores</code> |
<code>minimumCores</code> </p> </li> <li> <p> <code>Instances</code> dimension:
<code>allowedTenancy</code> | <code>maximumCores</code> | <code>minimumCores</code> |
<code>maximumSockets</code> | <code>minimumSockets</code> | <code>maximumVcpus</code> |
<code>minimumVcpus</code> </p> </li> <li> <p> <code>Sockets</code> dimension:
<code>allowedTenancy</code> | <code>licenseAffinityToHost</code> | <code>maximumSockets</code> |
<code>minimumSockets</code> </p> </li> <li> <p> <code>vCPUs</code> dimension:
<code>allowedTenancy</code> | <code>honorVcpuOptimization</code> | <code>maximumVcpus</code> |
<code>minimumVcpus</code> </p> </li> </ul> <p>The unit for <code>licenseAffinityToHost</code>
 is days and the range is 1 to 180. The possible values for <code>allowedTenancy</code> are <code>EC2-
Default</code>, <code>EC2-DedicatedHost</code>, and <code>EC2-DedicatedInstance</code>. The possible
values for <code>honorVcpuOptimization</code> are <code>True</code> and <code>False</code>.</p>",
    "GetLicenseConfigurationResponse$LicenseRules": "<p>License rules.</p>",
    "LicenseConfiguration$LicenseRules": "<p>License rules.</p>",
    "ListLicenseConfigurationsRequest$LicenseConfigurationArns": "<p>Amazon Resource Names (ARN) of the
license configurations.</p>",
```

```
      "ListTokensRequest$TokenIds": "<p>Token IDs.</p>",
      "ProductInformationFilter$ProductInformationFilterValue": "<p>Filter value.</p>",
      "UpdateLicenseConfigurationRequest$LicenseRules": "<p>New license rule. The only rule that you can add after you create a license configuration is licenseAffinityToHost.</p>"
    }
  },
  "Tag": {
    "base": "<p>Details about a tag
 for a license configuration.</p>",
    "refs": {
      "TagList$member": null
    }
  },
  "TagKeyList": {
    "base": null,
    "refs": {
      "UntagResourceRequest$TagKeys": "<p>Keys identifying the tags to remove.</p>"
    }
  },
  "TagList": {
    "base": null,
    "refs": {
      "CreateLicenseConfigurationRequest$Tags": "<p>Tags to add to the license configuration.</p>",
      "CreateLicenseManagerReportGeneratorRequest$Tags": "<p>Tags to add to the report generator.</p>",
      "GetLicenseConfigurationResponse$Tags": "<p>Tags for the license configuration.</p>",
      "ListTagsForResourceResponse$Tags": "<p>Information about the tags.</p>",
      "ReportGenerator$Tags": "<p>Tags associated with the report generator.</p>",
      "TagResourceRequest$Tags": "<p>One or more tags.</p>"
    }
  },
  "TagResourceRequest": {
    "base": null,
    "refs": {
    }
  },
  "TagResourceResponse": {
    "base": null,
    "refs": {

    }
  },
  "TokenData": {
    "base": "<p>Describes a token.</p>",
    "refs": {
      "TokenList$member": null
    }
  },
  "TokenList": {
```

```
    "base": null,
    "refs": {
      "ListTokensResponse$Tokens": "<p>Received token details.</p>"
    }
  },
  "TokenString": {
    "base": null,
    "refs": {
      "CreateTokenResponse$Token": "<p>Refresh token, encoded as a JWT token.</p>",
      "GetAccessTokenRequest$Token": "<p>Refresh token, encoded as a JWT token.</p>",
      "GetAccessTokenResponse$AccessToken": "<p>Temporary access token.</p>"
    }
  },
  "TokenType": {
    "base": null,
    "refs": {
      "CreateTokenResponse$TokenType": "<p>Token type.</p>"
    }
  },
  "UnsupportedDigitalSignatureMethodException": {
    "base": "<p>The digital signature method is unsupported. Try your request again.</p>",
    "refs": {
    }
  },
  "UntagResourceRequest": {
    "base": null,
    "refs": {
    }
  },
  "UntagResourceResponse":
{
    "base": null,
    "refs": {
    }
  },
  "UpdateLicenseConfigurationRequest": {
    "base": null,
    "refs": {
    }
  },
  "UpdateLicenseConfigurationResponse": {
    "base": null,
    "refs": {
    }
  },
  "UpdateLicenseManagerReportGeneratorRequest": {
    "base": null,
    "refs": {
```

```
    }
  },
  "UpdateLicenseManagerReportGeneratorResponse": {
    "base": null,
    "refs": {
    }
  },
  "UpdateLicenseSpecificationsForResourceRequest": {
    "base": null,
    "refs": {
    }
  },
  "UpdateLicenseSpecificationsForResourceResponse": {
    "base": null,
    "refs": {
    }
  },
  "UpdateServiceSettingsRequest": {
    "base": null,
    "refs": {
    }
  },
  "UpdateServiceSettingsResponse": {
    "base": null,
    "refs": {
    }
  },
  "UsageOperation": {
    "base": null,
    "refs": {
      "LicenseConversionContext$UsageOperation": "<p>The Usage operation value
 that corresponds to the license type you are converting your resource from. For more information about which
platforms correspond to which usage operation values see <a
href=\"https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/billing-info-fields.html#billing-info\">Sample
data: usage operation by platform </a> </p>"
    }
  },
  "ValidationException": {
    "base": "<p>The provided input is not valid. Try your request again.</p>",
    "refs": {
    }
  }
 }
}
{
 "version": "2.0",
 "service": "<p>With License Manager, you can discover and track your commercial Linux subscriptions on running
Amazon EC2 instances.</p>",
```

```
 "operations": {
   "GetServiceSettings": "<p>Lists the Linux subscriptions service settings.</p>",
   "ListLinuxSubscriptionInstances": "<p>Lists the running Amazon EC2 instances that were discovered with commercial Linux subscriptions.</p>",
   "ListLinuxSubscriptions": "<p>Lists the Linux subscriptions that have been discovered. If you have linked your organization, the returned results will include data aggregated across your accounts in Organizations.</p>",
   "UpdateServiceSettings": "<p>Updates the service settings for Linux subscriptions.</p>"
 },
 "shapes": {
   "Boolean": {
     "base": null,
     "refs": {
       "UpdateServiceSettingsRequest$AllowUpdate": "<p>Describes if updates are allowed to the service settings for Linux subscriptions. If you allow updates, you can aggregate Linux subscription data in
 more than one home Region.</p>"
     }
   },
   "BoxInteger": {
     "base": null,
     "refs": {
       "ListLinuxSubscriptionInstancesRequest$MaxResults": "<p>Maximum number of results to return in a single call.</p>",
       "ListLinuxSubscriptionsRequest$MaxResults": "<p>Maximum number of results to return in a single call.</p>"
     }
   },
   "BoxLong": {
     "base": null,
     "refs": {
       "Subscription$InstanceCount": "<p>The total amount of running instances using this subscription.</p>"
     }
   },
   "Filter": {
     "base": "<p>A filter object that is used to return more specific results from a describe operation. Filters can be used to match a set of resources by specific criteria.</p>",
     "refs": {
       "FilterList$member": null
     }
   },
   "FilterList": {
     "base": null,
     "refs": {
       "ListLinuxSubscriptionInstancesRequest$Filters": "<p>An array of structures that you can use to filter the results to those that match one
 or more sets of key-value pairs that you specify. For example, you can filter by the name of <code>AmiID</code> with an optional operator to see subscriptions that match, partially match, or don't match a certain Amazon Machine Image (AMI) ID.</p> <p>The valid names for this filter are:</p> <ul> <li> <p> <code>AmiID</code> </p> </li> <li> <p> <code>InstanceID</code> </p> </li> <li> <p> <code>AccountID</code> </p> </li> <li> <p> <code>Status</code> </p> </li> <li> <p> <code>Region</code> </p> </li> <li> <p>
```

<code>UsageOperation</code>   <code>ProductCode</code>   <code>InstanceType</code>   The valid Operators for this filter are: <ul> <code>contains</code>   <code>equals</code>   <code>Notequal</code> ",

"ListLinuxSubscriptionsRequest$Filters": " An array of structures that you can use to filter the results to those that match one or more sets of key-value

pairs that you specify. For example, you can filter by the name of <code>Subscription</code> with an optional operator to see subscriptions that match, partially match, or don't match a certain subscription's name. The valid names for this filter are: <ul> <code>Subscription</code>   The valid Operators for this filter are: <ul> <code>contains</code>   <code>equals</code>   <code>Notequal</code> "

}

},

"GetServiceSettingsRequest": {

"base": null,

"refs": {

}

},

"GetServiceSettingsResponse": {

"base": null,

"refs": {

}

},

"Instance": {

"base": " Details discovered information about a running instance using Linux subscriptions. ",

"refs": {

"InstanceList$member": null

}

},

"InstanceList": {

"base": null,

"refs": {

"ListLinuxSubscriptionInstancesResponse$Instances":

" An array that contains instance objects. "

}

},

"InternalServerException": {

"base": " An exception occurred with the service. ",

"refs": {

}

},

"LinuxSubscriptionsDiscovery": {

"base": null,

"refs": {

"GetServiceSettingsResponse$LinuxSubscriptionsDiscovery": " Lists if discovery has been enabled for Linux subscriptions. ",

"UpdateServiceSettingsRequest$LinuxSubscriptionsDiscovery": " Describes if the discovery of Linux subscriptions is enabled. ",

```
      "UpdateServiceSettingsResponse$LinuxSubscriptionsDiscovery": "<p>Lists if discovery has been enabled for Linux subscriptions.</p>"
    }
  },
  "LinuxSubscriptionsDiscoverySettings": {
    "base": "<p>Lists the settings defined for discovering Linux subscriptions.</p>",
    "refs": {
      "GetServiceSettingsResponse$LinuxSubscriptionsDiscoverySettings": "<p>Lists the settings defined for Linux subscriptions discovery. The settings
 include if Organizations integration has been enabled, and which Regions data will be aggregated from.</p>",
      "UpdateServiceSettingsRequest$LinuxSubscriptionsDiscoverySettings": "<p>The settings defined for Linux subscriptions discovery. The settings include if Organizations integration has been enabled, and which Regions data will be aggregated from.</p>",
      "UpdateServiceSettingsResponse$LinuxSubscriptionsDiscoverySettings": "<p>The settings defined for Linux subscriptions discovery. The settings include if Organizations integration has been enabled, and which Regions data will be aggregated from.</p>"
    }
  },
  "ListLinuxSubscriptionInstancesRequest": {
    "base": "<p>NextToken length limit is half of ddb accepted limit. Increase this limit if parameters in request increases.</p>",
    "refs": {
    }
  },
  "ListLinuxSubscriptionInstancesRequestNextTokenString": {
    "base": null,
    "refs": {
      "ListLinuxSubscriptionInstancesRequest$NextToken":
 "<p>Token for the next set of results.</p>"
    }
  },
  "ListLinuxSubscriptionInstancesResponse": {
    "base": null,
    "refs": {
    }
  },
  "ListLinuxSubscriptionsRequest": {
    "base": "<p>NextToken length limit is half of ddb accepted limit. Increase this limit if parameters in request increases.</p>",
    "refs": {
    }
  },
  "ListLinuxSubscriptionsRequestNextTokenString": {
    "base": null,
    "refs": {
      "ListLinuxSubscriptionsRequest$NextToken": "<p>Token for the next set of results.</p>"
    }
  },
```

```
  "ListLinuxSubscriptionsResponse": {
    "base": null,
    "refs": {
    }
  },
  "Operator": {
    "base": null,
    "refs": {
      "Filter$Operator": "<p>An operator for filtering results.</p>"
    }
  },
  "OrganizationIntegration": {
    "base": null,
    "refs": {
      "LinuxSubscriptionsDiscoverySettings$OrganizationIntegration": "<p>Details if you have enabled resource discovery across
 your accounts in Organizations.</p>"
    }
  },
  "ProductCodeList": {
    "base": null,
    "refs": {
      "Instance$ProductCode": "<p>The product code for the instance. For more information, see <a href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/linux-subscriptions-usage-operation.html\">Usage operation values</a> in the <i>License Manager User Guide</i> .</p>"
    }
  },
  "Status": {
    "base": null,
    "refs": {
      "GetServiceSettingsResponse$Status": "<p>Indicates the status of Linux subscriptions settings being applied.</p>",
      "UpdateServiceSettingsResponse$Status": "<p>Indicates the status of Linux subscriptions settings being applied.</p>"
    }
  },
  "String": {
    "base": null,
    "refs": {
      "Filter$Name": "<p>The type of name to filter by.</p>",
      "Instance$AccountID": "<p>The account ID which owns the instance.</p>",
      "Instance$AmiId": "<p>The AMI ID used to launch the instance.</p>",
      "Instance$InstanceID": "<p>The instance ID of the resource.</p>",
      "Instance$InstanceType": "<p>The instance type of the resource.</p>",
      "Instance$LastUpdatedTime": "<p>The time in which the last discovery updated the instance details.</p>",
      "Instance$Region": "<p>The Region the instance is running in.</p>",
      "Instance$Status": "<p>The status of the instance.</p>",
      "Instance$SubscriptionName": "<p>The name of the subscription being used by the instance.</p>",
```

```
      "Instance$UsageOperation": "<p>The usage operation of the instance. For more information, see For more information, see <a href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/linux-subscriptions-usage-operation.html\">Usage operation values</a> in the <i>License Manager User Guide</i>.</p>",
      "InternalServerException$message": null,
      "ListLinuxSubscriptionInstancesResponse$NextToken": "<p>Token for the next set of results.</p>",
      "ListLinuxSubscriptionsResponse$NextToken":
 "<p>Token for the next set of results.</p>",
      "ProductCodeList$member": null,
      "StringMap$key": null,
      "StringMap$value": null,
      "Subscription$Name": "<p>The name of the subscription.</p>",
      "Subscription$Type": "<p>The type of subscription. The type can be subscription-included with Amazon EC2, Bring Your Own Subscription model (BYOS), or from the Amazon Web Services Marketplace. Certain subscriptions may use licensing from the Amazon Web Services Marketplace as well as OS licensing from Amazon EC2 or BYOS.</p>",
      "ThrottlingException$message": null,
      "ValidationException$message": null
    }
  },
  "StringList": {
    "base": null,
    "refs": {
      "Filter$Values": "<p>One or more values for the name to filter by.</p>",
      "GetServiceSettingsResponse$HomeRegions": "<p>The Region in which License Manager displays the aggregated data for Linux subscriptions.</p>",
      "LinuxSubscriptionsDiscoverySettings$SourceRegions":
 "<p>The Regions in which to discover data for Linux subscriptions.</p>",
      "UpdateServiceSettingsResponse$HomeRegions": "<p>The Region in which License Manager displays the aggregated data for Linux subscriptions.</p>"
    }
  },
  "StringListMemberString": {
    "base": null,
    "refs": {
      "StringList$member": null
    }
  },
  "StringMap": {
    "base": null,
    "refs": {
      "GetServiceSettingsResponse$StatusMessage": "<p>A message which details the Linux subscriptions service settings current status.</p>",
      "UpdateServiceSettingsResponse$StatusMessage": "<p>A message which details the Linux subscriptions service settings current status.</p>"
    }
  },
  "Subscription": {
    "base": "<p>An object which details a discovered Linux subscription.</p>",
```

```
    "refs": {
      "SubscriptionList$member": null
    }
  },
  "SubscriptionList": {
    "base": null,
    "refs": {

  "ListLinuxSubscriptionsResponse$Subscriptions": "<p>An array that contains subscription objects.</p>"
    }
  },
  "ThrottlingException": {
    "base": "<p>The request was denied due to request throttling.</p>",
    "refs": {
    }
  },
  "UpdateServiceSettingsRequest": {
    "base": null,
    "refs": {
    }
  },
  "UpdateServiceSettingsResponse": {
    "base": null,
    "refs": {
    }
  },
  "ValidationException": {
    "base": "<p>The provided input is not valid. Try your request again.</p>",
    "refs": {
    }
  }
 }
}
{
  "testCases": [
    {
      "documentation": "For region af-south-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager.af-south-1.amazonaws.com"
        }
      },
      "params": {
        "UseFIPS": false,
        "UseDualStack": false,
        "Region": "af-south-1"
      }
    },
```

```
  {
    "documentation": "For region ap-east-1 with FIPS disabled and DualStack disabled",
    "expect": {
      "endpoint": {
        "url": "https://license-manager.ap-east-1.amazonaws.com"
      }
    },
    "params": {
      "UseFIPS": false,
      "UseDualStack": false,
      "Region": "ap-east-1"
    }
  },
  {
    "documentation": "For region ap-northeast-1 with FIPS disabled and DualStack disabled",

"expect": {
      "endpoint": {
        "url": "https://license-manager.ap-northeast-1.amazonaws.com"
      }
    },
    "params": {
      "UseFIPS": false,
      "UseDualStack": false,
      "Region": "ap-northeast-1"
    }
  },
  {
    "documentation": "For region ap-northeast-2 with FIPS disabled and DualStack disabled",
    "expect": {
      "endpoint": {
        "url": "https://license-manager.ap-northeast-2.amazonaws.com"
      }
    },
    "params": {
      "UseFIPS": false,
      "UseDualStack": false,
      "Region": "ap-northeast-2"
    }
  },
  {
    "documentation": "For region ap-northeast-3 with FIPS disabled and DualStack disabled",
    "expect": {
      "endpoint": {
        "url": "https://license-manager.ap-northeast-3.amazonaws.com"
       }
    },
    "params": {
```

```
            "UseFIPS": false,
            "UseDualStack": false,
            "Region": "ap-northeast-3"
        }
    },
    {
        "documentation": "For region ap-south-1 with FIPS disabled and DualStack disabled",
        "expect": {
            "endpoint": {
                "url": "https://license-manager.ap-south-1.amazonaws.com"
            }
        },
        "params": {
            "UseFIPS": false,
            "UseDualStack": false,
            "Region": "ap-south-1"
        }
    },
    {
        "documentation": "For region ap-southeast-1 with FIPS disabled and DualStack disabled",
        "expect": {
            "endpoint": {
                "url": "https://license-manager.ap-southeast-1.amazonaws.com"
            }
        },
        "params": {
            "UseFIPS": false,
            "UseDualStack":
false,
            "Region": "ap-southeast-1"
        }
    },
    {
        "documentation": "For region ap-southeast-2 with FIPS disabled and DualStack disabled",
        "expect": {
            "endpoint": {
                "url": "https://license-manager.ap-southeast-2.amazonaws.com"
            }
        },
        "params": {
            "UseFIPS": false,
            "UseDualStack": false,
            "Region": "ap-southeast-2"
        }
    },
    {
        "documentation": "For region ap-southeast-3 with FIPS disabled and DualStack disabled",
        "expect": {
```

```
            "endpoint": {
                "url": "https://license-manager.ap-southeast-3.amazonaws.com"
            }
        },
        "params": {
            "UseFIPS": false,
            "UseDualStack": false,
            "Region": "ap-southeast-3"
        }
    },
    {
        "documentation":
"For region ca-central-1 with FIPS disabled and DualStack disabled",
        "expect": {
            "endpoint": {
                "url": "https://license-manager.ca-central-1.amazonaws.com"
            }
        },
        "params": {
            "UseFIPS": false,
            "UseDualStack": false,
            "Region": "ca-central-1"
        }
    },
    {
        "documentation": "For region eu-central-1 with FIPS disabled and DualStack disabled",
        "expect": {
            "endpoint": {
                "url": "https://license-manager.eu-central-1.amazonaws.com"
            }
        },
        "params": {
            "UseFIPS": false,
            "UseDualStack": false,
            "Region": "eu-central-1"
        }
    },
    {
        "documentation": "For region eu-north-1 with FIPS disabled and DualStack disabled",
        "expect": {
            "endpoint":
{
                "url": "https://license-manager.eu-north-1.amazonaws.com"
            }
        },
        "params": {
            "UseFIPS": false,
            "UseDualStack": false,
```

```
            "Region": "eu-north-1"
          }
        },
        {
          "documentation": "For region eu-south-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager.eu-south-1.amazonaws.com"
            }
          },
          "params": {
            "UseFIPS": false,
            "UseDualStack": false,
            "Region": "eu-south-1"
          }
        },
        {
          "documentation": "For region eu-west-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager.eu-west-1.amazonaws.com"
            }
          },
          "params":
    {
            "UseFIPS": false,
            "UseDualStack": false,
            "Region": "eu-west-1"
          }
        },
        {
          "documentation": "For region eu-west-2 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager.eu-west-2.amazonaws.com"
            }
          },
          "params": {
            "UseFIPS": false,
            "UseDualStack": false,
            "Region": "eu-west-2"
          }
        },
        {
          "documentation": "For region eu-west-3 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager.eu-west-3.amazonaws.com"
```

```
        }
      },
      "params": {
        "UseFIPS": false,
        "UseDualStack": false,
        "Region": "eu-west-3"
      }

},
  {
    "documentation": "For region me-south-1 with FIPS disabled and DualStack disabled",
    "expect": {
      "endpoint": {
        "url": "https://license-manager.me-south-1.amazonaws.com"
      }
    },
    "params": {
      "UseFIPS": false,
      "UseDualStack": false,
      "Region": "me-south-1"
    }
  },
  {
    "documentation": "For region sa-east-1 with FIPS disabled and DualStack disabled",
    "expect": {
      "endpoint": {
        "url": "https://license-manager.sa-east-1.amazonaws.com"
      }
    },
    "params": {
      "UseFIPS": false,
      "UseDualStack": false,
      "Region": "sa-east-1"
    }
  },
  {
    "documentation": "For region us-east-1 with FIPS disabled and DualStack disabled",
    "expect": {

    "endpoint": {
        "url": "https://license-manager.us-east-1.amazonaws.com"
      }
    },
    "params": {
      "UseFIPS": false,
      "UseDualStack": false,
      "Region": "us-east-1"
    }
```

```
},
{
   "documentation": "For region us-east-1 with FIPS enabled and DualStack disabled",
   "expect": {
      "endpoint": {
         "url": "https://license-manager-fips.us-east-1.amazonaws.com"
      }
   },
   "params": {
      "UseFIPS": true,
      "UseDualStack": false,
      "Region": "us-east-1"
   }
},
{
   "documentation": "For region us-east-2 with FIPS disabled and DualStack disabled",
   "expect": {
      "endpoint": {
         "url": "https://license-manager.us-east-2.amazonaws.com"
      }
   },

 "params": {
      "UseFIPS": false,
      "UseDualStack": false,
      "Region": "us-east-2"
   }
},
{
   "documentation": "For region us-east-2 with FIPS enabled and DualStack disabled",
   "expect": {
      "endpoint": {
         "url": "https://license-manager-fips.us-east-2.amazonaws.com"
      }
   },
   "params": {
      "UseFIPS": true,
      "UseDualStack": false,
      "Region": "us-east-2"
   }
},
{
   "documentation": "For region us-west-1 with FIPS disabled and DualStack disabled",
   "expect": {
      "endpoint": {
         "url": "https://license-manager.us-west-1.amazonaws.com"
      }
   },
```

```
      "params": {
        "UseFIPS": false,
        "UseDualStack": false,
        "Region": "us-west-1"

    }
    },
    {
      "documentation": "For region us-west-1 with FIPS enabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-fips.us-west-1.amazonaws.com"
        }
      },
      "params": {
        "UseFIPS": true,
        "UseDualStack": false,
        "Region": "us-west-1"
      }
    },
    {
      "documentation": "For region us-west-2 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager.us-west-2.amazonaws.com"
        }
      },
      "params": {
        "UseFIPS": false,
        "UseDualStack": false,
        "Region": "us-west-2"
      }
    },
    {
      "documentation": "For region us-west-2 with FIPS enabled and DualStack disabled",
      "expect":
  {
        "endpoint": {
          "url": "https://license-manager-fips.us-west-2.amazonaws.com"
        }
      },
      "params": {
        "UseFIPS": true,
        "UseDualStack": false,
        "Region": "us-west-2"
      }
    },
    {
```

```
    "documentation": "For region us-east-1 with FIPS enabled and DualStack enabled",
    "expect": {
      "endpoint": {
        "url": "https://license-manager-fips.us-east-1.api.aws"
      }
    },
    "params": {
      "UseFIPS": true,
      "UseDualStack": true,
      "Region": "us-east-1"
    }
  },
  {
    "documentation": "For region us-east-1 with FIPS disabled and DualStack enabled",
    "expect": {
      "endpoint": {
        "url": "https://license-manager.us-east-1.api.aws"
      }
    },

   "params": {
      "UseFIPS": false,
      "UseDualStack": true,
      "Region": "us-east-1"
    }
  },
  {
    "documentation": "For region cn-north-1 with FIPS disabled and DualStack disabled",
    "expect": {
      "endpoint": {
        "url": "https://license-manager.cn-north-1.amazonaws.com.cn"
      }
    },
    "params": {
      "UseFIPS": false,
      "UseDualStack": false,
      "Region": "cn-north-1"
    }
  },
  {
    "documentation": "For region cn-northwest-1 with FIPS disabled and DualStack disabled",
    "expect": {
      "endpoint": {
        "url": "https://license-manager.cn-northwest-1.amazonaws.com.cn"
      }
    },
    "params": {
      "UseFIPS": false,
```

```
            "UseDualStack": false,
            "Region": "cn-northwest-1"
          }
      },
      {
        "documentation": "For region cn-north-1 with FIPS enabled and DualStack enabled",
        "expect": {
          "endpoint": {
            "url": "https://license-manager-fips.cn-north-1.api.amazonwebservices.com.cn"
          }
        },
        "params": {
          "UseFIPS": true,
          "UseDualStack": true,
          "Region": "cn-north-1"
        }
      },
      {
        "documentation": "For region cn-north-1 with FIPS enabled and DualStack disabled",
        "expect": {
          "endpoint": {
            "url": "https://license-manager-fips.cn-north-1.amazonaws.com.cn"
          }
        },
        "params": {
          "UseFIPS": true,
          "UseDualStack": false,
          "Region": "cn-north-1"
        }
      },
      {
        "documentation": "For region cn-north-1 with FIPS disabled
and DualStack enabled",
        "expect": {
          "endpoint": {
            "url": "https://license-manager.cn-north-1.api.amazonwebservices.com.cn"
          }
        },
        "params": {
          "UseFIPS": false,
          "UseDualStack": true,
          "Region": "cn-north-1"
        }
      },
      {
        "documentation": "For region us-gov-east-1 with FIPS disabled and DualStack disabled",
        "expect": {
          "endpoint": {
```

```
            "url": "https://license-manager.us-gov-east-1.amazonaws.com"
        }
    },
    "params": {
        "UseFIPS": false,
        "UseDualStack": false,
        "Region": "us-gov-east-1"
    }
},
{
    "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack disabled",
    "expect": {
        "endpoint": {
            "url": "https://license-manager-fips.us-gov-east-1.amazonaws.com"
         }
    },
    "params": {
        "UseFIPS": true,
        "UseDualStack": false,
        "Region": "us-gov-east-1"
    }
},
{
    "documentation": "For region us-gov-west-1 with FIPS disabled and DualStack disabled",
    "expect": {
        "endpoint": {
            "url": "https://license-manager.us-gov-west-1.amazonaws.com"
        }
    },
    "params": {
        "UseFIPS": false,
        "UseDualStack": false,
        "Region": "us-gov-west-1"
    }
},
{
    "documentation": "For region us-gov-west-1 with FIPS enabled and DualStack disabled",
    "expect": {
        "endpoint": {
            "url": "https://license-manager-fips.us-gov-west-1.amazonaws.com"
        }
    },
    "params": {

        "UseFIPS": true,
        "UseDualStack": false,
        "Region": "us-gov-west-1"
    }
```

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    },
    {
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      "expect": {
        "endpoint": {
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        }
      },
      "params": {
        "UseFIPS": true,
        "UseDualStack": true,
        "Region": "us-gov-east-1"
      }
    },
    {
      "documentation": "For region us-gov-east-1 with FIPS disabled and DualStack enabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager.us-gov-east-1.api.aws"
        }
      },
      "params": {
        "UseFIPS": false,
        "UseDualStack": true,
        "Region": "us-gov-east-1"
      }

  },
    {
      "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager.us-iso-east-1.c2s.ic.gov"
        }
      },
      "params": {
        "UseFIPS": false,
        "UseDualStack": false,
        "Region": "us-iso-east-1"
      }
    },
    {
      "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack enabled",
      "expect": {
        "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
      },
      "params": {
        "UseFIPS": true,
```

```
            "UseDualStack": true,
            "Region": "us-iso-east-1"
          }
        },
        {
          "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack disabled",
          "expect": {

         "endpoint": {
                "url": "https://license-manager-fips.us-iso-east-1.c2s.ic.gov"
            }
          },
          "params": {
            "UseFIPS": true,
            "UseDualStack": false,
            "Region": "us-iso-east-1"
          }
        },
        {
          "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack enabled",
          "expect": {
            "error": "DualStack is enabled but this partition does not support DualStack"
          },
          "params": {
            "UseFIPS": false,
            "UseDualStack": true,
            "Region": "us-iso-east-1"
          }
        },
        {
          "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager.us-isob-east-1.sc2s.sgov.gov"
            }
          },
          "params":
    {
            "UseFIPS": false,
            "UseDualStack": false,
            "Region": "us-isob-east-1"
          }
        },
        {
          "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack enabled",
          "expect": {
            "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
          },
```

```
    "params": {
      "UseFIPS": true,
      "UseDualStack": true,
      "Region": "us-isob-east-1"
    }
  },
  {
    "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack disabled",
    "expect": {
      "endpoint": {
        "url": "https://license-manager-fips.us-isob-east-1.sc2s.sgov.gov"
      }
    },
    "params": {
      "UseFIPS": true,
      "UseDualStack": false,
      "Region": "us-isob-east-1"
    }
  },
  {
    "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack enabled",
    "expect": {
      "error": "DualStack is enabled but this partition does not support DualStack"
    },
    "params": {
      "UseFIPS": false,
      "UseDualStack": true,
      "Region": "us-isob-east-1"
    }
  },
  {
    "documentation": "For custom endpoint with region set and fips disabled and dualstack disabled",
    "expect": {
      "endpoint": {
        "url": "https://example.com"
      }
    },
    "params": {
      "UseFIPS": false,
      "UseDualStack": false,
      "Region": "us-east-1",
      "Endpoint": "https://example.com"
    }
  },
  {
    "documentation": "For custom endpoint with region not set and fips disabled and dualstack disabled",
    "expect": {
      "endpoint": {
```

```
            "url": "https://example.com"
          }
        },
        "params": {
          "UseFIPS": false,
          "UseDualStack": false,
          "Endpoint": "https://example.com"
        }
      },
      {
        "documentation": "For custom endpoint with fips enabled and dualstack disabled",
        "expect": {
          "error": "Invalid Configuration: FIPS and custom endpoint are not supported"
        },
        "params": {
          "UseFIPS": true,
          "UseDualStack": false,
          "Region": "us-east-1",
          "Endpoint": "https://example.com"
        }
      },
      {
        "documentation": "For custom endpoint with fips disabled and dualstack enabled",
        "expect": {
          "error": "Invalid Configuration: Dualstack and custom endpoint are not supported"
        },
         "params": {
          "UseFIPS": false,
          "UseDualStack": true,
          "Region": "us-east-1",
          "Endpoint": "https://example.com"
        }
      },
      {
        "documentation": "Missing region",
        "expect": {
          "error": "Invalid Configuration: Missing Region"
        }
      }
  ],
  "version": "1.0"
}
{
  "testCases": [
    {
      "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack enabled",
      "expect": {
        "endpoint": {
```

```
            "url": "https://license-manager-linux-subscriptions-fips.us-gov-east-1.api.aws"
          }
        },
        "params": {
          "Region": "us-gov-east-1",
          "UseDualStack": true,
          "UseFIPS": true
        }
      },
      {
        "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack disabled",
        "expect": {
          "endpoint": {
            "url": "https://license-manager-linux-subscriptions-fips.us-gov-east-1.amazonaws.com"
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        },
        "params": {
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     "result_key": "InstanceSummaries"
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      "type": "Boolean"
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                    "headers": {}
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              "type": "error"
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                "headers": {}
            },
            "type": "endpoint"
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    }
  ]
}
```


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    "IdentityProvider":{"shape":"IdentityProvider"},
    "Product":{"shape":"String"}
  }
 },
"DeregisterIdentityProviderResponse":{
  "type":"structure",
```

```
  "required":["IdentityProviderSummary"],
  "members":{
    "IdentityProviderSummary":{"shape":"IdentityProviderSummary"}
  }
},
"DisassociateUserRequest":{
  "type":"structure",
  "required":[
    "IdentityProvider",
    "InstanceId",
    "Username"
  ],
  "members":{
    "Domain":{"shape":"String"},
    "IdentityProvider":{"shape":"IdentityProvider"},
    "InstanceId":{"shape":"String"},
    "Username":{"shape":"String"}
  }
},
"DisassociateUserResponse":{
  "type":"structure",
  "required":["InstanceUserSummary"],
  "members":{
    "InstanceUserSummary":{"shape":"InstanceUserSummary"}
  }
},
"Filter":{
  "type":"structure",
  "members":{
    "Attribute":{"shape":"String"},
    "Operation":{"shape":"String"},
    "Value":{"shape":"String"}
  }
},
"FilterList":{
  "type":"list",
   "member":{"shape":"Filter"}
},
"IdentityProvider":{
  "type":"structure",
  "members":{
    "ActiveDirectoryIdentityProvider":{"shape":"ActiveDirectoryIdentityProvider"}
  },
  "union":true
},
"IdentityProviderSummary":{
  "type":"structure",
  "required":[
```

```
    "IdentityProvider",
    "Product",
    "Settings",
    "Status"
  ],
  "members":{
    "FailureMessage":{"shape":"String"},
    "IdentityProvider":{"shape":"IdentityProvider"},
    "Product":{"shape":"String"},
    "Settings":{"shape":"Settings"},
    "Status":{"shape":"String"}
  }
},
"IdentityProviderSummaryList":{
  "type":"list",
  "member":{"shape":"IdentityProviderSummary"}
},
"InstanceSummary":{
  "type":"structure",
  "required":[
    "InstanceId",
    "Products",
    "Status"
  ],
  "members":{
    "InstanceId":{"shape":"String"},
    "LastStatusCheckDate":{"shape":"String"},
     "Products":{"shape":"StringList"},
    "Status":{"shape":"String"},
    "StatusMessage":{"shape":"String"}
  }
},
"InstanceSummaryList":{
  "type":"list",
  "member":{"shape":"InstanceSummary"}
},
"InstanceUserSummary":{
  "type":"structure",
  "required":[
    "IdentityProvider",
    "InstanceId",
    "Status",
    "Username"
  ],
  "members":{
    "AssociationDate":{"shape":"String"},
    "DisassociationDate":{"shape":"String"},
    "Domain":{"shape":"String"},
```

```
    "IdentityProvider":{"shape":"IdentityProvider"},
    "InstanceId":{"shape":"String"},
    "Status":{"shape":"String"},
    "StatusMessage":{"shape":"String"},
    "Username":{"shape":"String"}
   }
  },
  "InstanceUserSummaryList":{
   "type":"list",
   "member":{"shape":"InstanceUserSummary"}
  },
  "InternalServerException":{
   "type":"structure",
   "members":{

   "message":{"shape":"String"}
   },
   "exception":true,
   "fault":true
  },
  "ListIdentityProvidersRequest":{
   "type":"structure",
   "members":{
    "MaxResults":{"shape":"BoxInteger"},
    "NextToken":{"shape":"String"}
   }
  },
  "ListIdentityProvidersResponse":{
   "type":"structure",
   "required":["IdentityProviderSummaries"],
   "members":{
    "IdentityProviderSummaries":{"shape":"IdentityProviderSummaryList"},
    "NextToken":{"shape":"String"}
   }
  },
  "ListInstancesRequest":{
   "type":"structure",
   "members":{
    "Filters":{"shape":"FilterList"},
    "MaxResults":{"shape":"BoxInteger"},
    "NextToken":{"shape":"String"}
   }
  },
  "ListInstancesResponse":{
   "type":"structure",
   "members":{
    "InstanceSummaries":{"shape":"InstanceSummaryList"},
    "NextToken":{"shape":"String"}
```

```
    }
  },
  "ListProductSubscriptionsRequest":{
    "type":"structure",
     "required":[
      "IdentityProvider",
      "Product"
    ],
    "members":{
      "Filters":{"shape":"FilterList"},
      "IdentityProvider":{"shape":"IdentityProvider"},
      "MaxResults":{"shape":"BoxInteger"},
      "NextToken":{"shape":"String"},
      "Product":{"shape":"String"}
    }
  },
  "ListProductSubscriptionsResponse":{
    "type":"structure",
    "members":{
      "NextToken":{"shape":"String"},
      "ProductUserSummaries":{"shape":"ProductUserSummaryList"}
    }
  },
  "ListUserAssociationsRequest":{
    "type":"structure",
    "required":[
      "IdentityProvider",
      "InstanceId"
    ],
    "members":{
      "Filters":{"shape":"FilterList"},
      "IdentityProvider":{"shape":"IdentityProvider"},
      "InstanceId":{"shape":"String"},
      "MaxResults":{"shape":"BoxInteger"},
      "NextToken":{"shape":"String"}
    }
  },
  "ListUserAssociationsResponse":{
    "type":"structure",

"members":{
      "InstanceUserSummaries":{"shape":"InstanceUserSummaryList"},
      "NextToken":{"shape":"String"}
    }
  },
  "ProductUserSummary":{
    "type":"structure",
    "required":[
```

```
    "IdentityProvider",
    "Product",
    "Status",
    "Username"
  ],
  "members":{
    "Domain":{"shape":"String"},
    "IdentityProvider":{"shape":"IdentityProvider"},
    "Product":{"shape":"String"},
    "Status":{"shape":"String"},
    "StatusMessage":{"shape":"String"},
    "SubscriptionEndDate":{"shape":"String"},
    "SubscriptionStartDate":{"shape":"String"},
    "Username":{"shape":"String"}
  }
},
"ProductUserSummaryList":{
  "type":"list",
  "member":{"shape":"ProductUserSummary"}
},
"RegisterIdentityProviderRequest":{
  "type":"structure",
  "required":[
    "IdentityProvider",
    "Product"
  ],
  "members":{
    "IdentityProvider":{"shape":"IdentityProvider"},
     "Product":{"shape":"String"},
    "Settings":{"shape":"Settings"}
  }
},
"RegisterIdentityProviderResponse":{
  "type":"structure",
  "required":["IdentityProviderSummary"],
  "members":{
    "IdentityProviderSummary":{"shape":"IdentityProviderSummary"}
  }
},
"ResourceNotFoundException":{
  "type":"structure",
  "members":{
    "message":{"shape":"String"}
  },
  "error":{
    "httpStatusCode":404,
    "senderFault":true
  },
```

```
  "exception":true
},
"SecurityGroup":{
  "type":"string",
  "max":200,
  "min":5,
  "pattern":"^sg-(([0-9a-z]{8})|([0-9a-z]{17}))$"
},
"ServiceQuotaExceededException":{
  "type":"structure",
  "members":{
    "message":{"shape":"String"}
  },
  "exception":true
},
"Settings":{
  "type":"structure",
  "required":[
    "SecurityGroupId",
    "Subnets"
  ],
  "members":{
    "SecurityGroupId":{"shape":"SecurityGroup"},
     "Subnets":{"shape":"SettingsSubnetsList"}
  }
},
"SettingsSubnetsList":{
  "type":"list",
  "member":{"shape":"Subnet"},
  "min":1
},
"StartProductSubscriptionRequest":{
  "type":"structure",
  "required":[
    "IdentityProvider",
    "Product",
    "Username"
  ],
  "members":{
    "Domain":{"shape":"String"},
    "IdentityProvider":{"shape":"IdentityProvider"},
    "Product":{"shape":"String"},
    "Username":{"shape":"String"}
  }
},
"StartProductSubscriptionResponse":{
  "type":"structure",
  "required":["ProductUserSummary"],
```

```
  "members":{
    "ProductUserSummary":{"shape":"ProductUserSummary"}
  }
},
"StopProductSubscriptionRequest":{
  "type":"structure",
  "required":[
    "IdentityProvider",
    "Product",
    "Username"
  ],
  "members":{
    "Domain":{"shape":"String"},
    "IdentityProvider":{"shape":"IdentityProvider"},
     "Product":{"shape":"String"},
    "Username":{"shape":"String"}
  }
},
"StopProductSubscriptionResponse":{
  "type":"structure",
  "required":["ProductUserSummary"],
  "members":{
    "ProductUserSummary":{"shape":"ProductUserSummary"}
  }
},
"String":{"type":"string"},
"StringList":{
  "type":"list",
  "member":{"shape":"String"}
},
"Subnet":{
  "type":"string",
  "pattern":"subnet-[a-z0-9]{8,17}"
},
"Subnets":{
  "type":"list",
  "member":{"shape":"Subnet"}
},
"ThrottlingException":{
  "type":"structure",
  "members":{
    "message":{"shape":"String"}
  },
  "exception":true
},
"UpdateIdentityProviderSettingsRequest":{
  "type":"structure",
  "required":[
```

```
      "IdentityProvider",
      "Product",
      "UpdateSettings"
    ],
    "members":{
      "IdentityProvider":{"shape":"IdentityProvider"},
       "Product":{"shape":"String"},
      "UpdateSettings":{"shape":"UpdateSettings"}
    }
  },
  "UpdateIdentityProviderSettingsResponse":{
    "type":"structure",
    "required":["IdentityProviderSummary"],
    "members":{
      "IdentityProviderSummary":{"shape":"IdentityProviderSummary"}
    }
  },
  "UpdateSettings":{
    "type":"structure",
    "required":[
      "AddSubnets",
      "RemoveSubnets"
    ],
    "members":{
      "AddSubnets":{"shape":"Subnets"},
      "RemoveSubnets":{"shape":"Subnets"},
      "SecurityGroupId":{"shape":"SecurityGroup"}
    }
  },
  "ValidationException":{
    "type":"structure",
    "members":{
      "message":{"shape":"String"}
    },
    "exception":true
  }
 }
}
```


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```
{
 "pagination": {
 }
}
{
  "version": "1.0",
  "parameters": {
    "Region": {
      "builtIn": "AWS::Region",
      "required": false,
      "documentation": "The AWS region used to dispatch the request.",
      "type": "String"
    },
    "UseDualStack": {
      "builtIn": "AWS::UseDualStack",
      "required": true,
      "default": false,
      "documentation": "When true, use the dual-stack endpoint. If the configured endpoint does not support dual-stack, dispatching the request MAY return an error.",
      "type": "Boolean"
    },
    "UseFIPS": {
      "builtIn": "AWS::UseFIPS",
      "required": true,
      "default": false,
      "documentation": "When true, send this request to the FIPS-compliant regional endpoint. If the configured endpoint does not have a FIPS compliant endpoint, dispatching the request will return an error.",
      "type": "Boolean"
    },
    "Endpoint": {

   "builtIn": "SDK::Endpoint",
      "required": false,
      "documentation": "Override the endpoint used to send this request",
      "type": "String"
    }
  },
  "rules": [
    {
      "conditions": [
```

```
            {
              "fn": "isSet",
              "argv": [
                {
                  "ref": "Endpoint"
                }
              ]
            }
          ],
          "type": "tree",
          "rules": [
            {
              "conditions": [
                {
                  "fn": "booleanEquals",
                  "argv": [
                    {
                      "ref": "UseFIPS"
                    },
                    true
                  ]
                }
              ],
              "error": "Invalid Configuration: FIPS and custom
endpoint are not supported",
              "type": "error"
            },
            {
              "conditions": [],
              "type": "tree",
              "rules": [
                {
                  "conditions": [
                    {
                      "fn": "booleanEquals",
                      "argv": [
                        {
                          "ref": "UseDualStack"
                        },
                        true
                      ]
                    }
                  ],
                  "error": "Invalid Configuration: Dualstack and custom endpoint are not supported",
                  "type": "error"
                },
                {
                  "conditions": [],
```

```
"endpoint": {
                    "url": {
                      "ref": "Endpoint"
                    },
                    "properties": {},
                    "headers": {}
                  },
                  "type": "endpoint"
                }
              ]
            }
          ]
        },
        {
          "conditions": [],
          "type": "tree",
          "rules": [
            {
              "conditions": [
                {
                  "fn": "isSet",
                  "argv": [
                    {
                      "ref": "Region"
                    }
                  ]
                }
              ],
              "type": "tree",
              "rules": [
                {
                  "conditions": [
                    {
                      "fn": "aws.partition",
                      "argv": [
                        {
                          "ref": "Region"
                        }
                      ],
                      "assign": "PartitionResult"
                    }
                  ],
                  "type": "tree",
                  "rules": [
                    {
                      "conditions": [
                        {
```

```
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                "argv": [
                  {
                    "ref": "UseFIPS"
                  },

true
                ]
              },
              {
                "fn": "booleanEquals",
                "argv": [
                  {
                    "ref": "UseDualStack"
                  },
                  true
                ]
              }
            ],
            "type": "tree",
            "rules": [
              {
                "conditions": [
                  {
                    "fn": "booleanEquals",
                    "argv": [
                      true,
                      {
                        "fn": "getAttr",
                        "argv": [
                          {
                            "ref": "PartitionResult"
                          },
                          "supportsFIPS"
                        ]
                      }
                    ]
                  },
                  {
                    "fn": "booleanEquals",
                    "argv": [

                true,
                      {
                        "fn": "getAttr",
                        "argv": [
                          {
                            "ref": "PartitionResult"
```

```
                                    },
                                    "supportsDualStack"
                                ]
                            }
                        ]
                    }
                ],
                "type": "tree",
                "rules": [
                    {

                        "conditions": [],
                        "type": "tree",
                        "rules": [
                            {
                                "conditions": [],
                                "endpoint": {
                                    "url": "https://license-manager-
fips.{Region}.{PartitionResult#dualStackDnsSuffix}",
                                    "properties": {},
                                    "headers": {}
                                },
                                "type": "endpoint"
                            }
                        ]

            }
                ]
            },
            {
                "conditions": [],
                "error": "FIPS and DualStack are enabled, but this partition does not support one or
both",
                "type": "error"
            }
        ]
    },
    {
        "conditions": [
            {
                "fn": "booleanEquals",
                "argv": [
                    {
                        "ref": "UseFIPS"
                    },
                    true
```

```
                ]
              }
            ],
            "type": "tree",
            "rules": [
              {
                "conditions": [
                  {
                    "fn": "booleanEquals",
                    "argv": [
                      true,
                      {
                        "fn": "getAttr",
                        "argv": [
                          {
                            "ref": "PartitionResult"
},
                          "supportsFIPS"
                        ]
                      }
                    ]
                  }
                ],
                "type": "tree",
                "rules": [
                  {
                    "conditions": [],
                    "type": "tree",
                    "rules": [
                      {
                        "conditions": [],
                        "endpoint": {
                          "url":
"https://license-manager-fips.{Region}.{PartitionResult#dnsSuffix}",
                          "properties": {},
                          "headers": {}
                        },
                        "type": "endpoint"
                      }
                    ]
                  }
                ]
              },
              {
                "conditions": [],
                "error": "FIPS is enabled but this partition does not support FIPS",
                "type": "error"
```

```
                }
              ]

        },
            {
              "conditions": [
                {
                  "fn": "booleanEquals",
                  "argv": [
                    {
                      "ref": "UseDualStack"
                    },
                    true
                  ]
                }
              ],
              "type": "tree",
              "rules": [
                {
                  "conditions": [
                    {
                      "fn": "booleanEquals",
                      "argv":
[
                        true,
                        {
                          "fn": "getAttr",
                          "argv": [
                            {
                              "ref": "PartitionResult"
                            },
                            "supportsDualStack"
                          ]
                        }
                      ]
                    }
                  ],
                  "type": "tree",
                  "rules": [

          {
                        "conditions": [],
                        "type": "tree",
                        "rules": [
                          {
                            "conditions": [],
                            "endpoint": {
                              "url": "https://license-
```

```
manager.{Region}.{PartitionResult#dualStackDnsSuffix}",
                                        "properties": {},
                                        "headers": {}
                                    },
                                    "type": "endpoint"
                                }
                            ]

                        }
                        ]
                    },
                    {
                        "conditions": [],
                        "error": "DualStack is enabled but this partition does not support DualStack",
                        "type": "error"
                    }
                ]
            },
            {
                "conditions": [],
                "type": "tree",
                "rules": [
                    {
                        "conditions": [],
                        "endpoint": {
                            "url": "https://license-manager.{Region}.{PartitionResult#dnsSuffix}",
                             "properties": {},
                            "headers": {}
                        },
                        "type": "endpoint"
                    }
                ]
            }
        ]
    }
    ]
},
{
    "conditions": [],
    "error": "Invalid Configuration: Missing Region",
    "type": "error"
}
]
}
]
}
```

1.358 kubernetes-utils 0.0.0-20240310230437-4693a0247e57

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1.359 logr 1.4.1

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1.361 jcommon 1.0.16

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*
* Changes
* -------
* 10-Dec-2001 : Version 1 (DG);
* 28-Feb-2002 : Moved into package com.jrefinery.ui.about (DG);
* 08-Oct-2002 : Fixed errors reported by Checkstyle (DG);
*
*/

package org.jfree.ui.about;

/**
* A simple class representing a contributor to a software project.
* <P>
* Used in the AboutFrame class.
*
* @author David Gilbert
*/
public class Contributor {

   /** The name. */
   private
 String name;

   /** The e-mail address. */
   private String email;

   /**
```

```
     * Creates a new contributor.
     *
     * @param name  the name.
     * @param email  the e-mail address.
     */
    public Contributor(final String name, final String email) {
        this.name = name;
        this.email = email;
    }

    /**
     * Returns the contributor's name.
     *
     * @return the contributor's name.
     */
    public String getName() {
        return this.name;
    }

    /**
     * Returns the contributor's e-mail address.
     *
     * @return the contributor's e-mail address.
     */
    public String getEmail() {
        return this.email;
    }

}
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* $Id: Licences.java,v 1.4 2005/11/16 15:58:41 taqua Exp $
*
* Changes
* -------
* 26-Nov-2001 : Version 1 (DG);
* 29-Jan-2002 : Appended the instructions to the end of the GNU LGPL and GPL to comply with
*               GNU requirements (DG);
* 28-Feb-2002 : Moved to package com.jrefinery.ui.about (DG);
* 08-Oct-2002 : Fixed errors reported by Checkstyle (DG);
*
*/

package org.jfree.ui.about;

/**
* Contains the full texts of the GNU General Public Licence and the GNU Lesser General
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* Licence.
* <P>
* These are used in the presentation of a standard 'About' frame.
*
* @author David Gilbert
*/
public class Licences {

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  public static final String GPL = "GNU GENERAL PUBLIC LICENSE\n"
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     + "Version 2, June 1991\n"
     + "\n"
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    + "changed the files and the date of any change.\n"
    + "\n"
    + "b) You must cause any work that you distribute or publish, that in whole or in part "
    + "contains or is derived from the Program or any part thereof, to be licensed as a whole "
    + "at no charge to all third parties under the terms of this License.\n"
    + "\n"
    + "c) If the modified program normally reads commands interactively when run, you must "
    + "cause it, when started running for such interactive use in the most ordinary way, to "
    + "print or display an announcement including an appropriate copyright notice and a "
    + "notice that there is no warranty (or else, saying that you provide a warranty) and
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"
    + "that users may redistribute the program under these conditions, and telling the user "
    + "how to view a copy of this License. (Exception: if the Program itself is interactive "
    + "but does not normally print such an announcement, your work based on the Program is "
    + "not required to print an announcement.)\n"
    + "\n"
    + "These requirements apply to the modified work as a whole. If identifiable sections of "
    + "that work are not derived from the Program, and can be reasonably considered "
    + "independent and separate works in themselves, then this License, and its terms, do not "
    + "apply to those sections when you distribute them as separate works. But when you "
    + "distribute the same sections as part of a whole which is a work based on the Program, "
    + "the distribution of the whole must be on the terms of this License, whose permissions "
    + "for other licensees extend to the
entire whole, and thus to each and every part "
    + "regardless of who wrote it.\n"
    + "\n"
    + "Thus, it is not the intent of this section to claim rights or contest your rights to "
    + "work written entirely by you; rather, the intent is to exercise the right to control "
    + "the distribution of derivative or collective works based on the Program.\n"
    + "\n"
    + "In addition, mere aggregation of another work not based on the Program with the "
    + "Program (or with a work based on the Program) on a volume of a storage or distribution "
    + "medium does not bring the other work under the scope of this License.\n"
    + "\n"
    + "3. You may copy and distribute the Program (or a work based on it, under Section 2) in "
    + "object code or executable form under the terms of Sections 1 and 2 above provided that "
    + "you also do one of the following:\n"
    + "\n"
    + "a) Accompany it
with the complete corresponding machine-readable source code, which "
    + "must be distributed under the terms of Sections 1 and 2 above on a medium customarily "
    + "used for software interchange; or,\n"
    + "b) Accompany it with a written offer, valid for at least three years, to give any "
    + "third party, for a charge no more than your cost of physically performing source "
    + "distribution, a complete machine-readable copy of the corresponding source code, to be "
    + "distributed under the terms of Sections 1 and 2 above on a medium customarily used for "
    + "software interchange; or,\n"
    + "c) Accompany it with the information you received as to the offer to distribute "
    + "corresponding source code. (This alternative is allowed only for noncommercial "
    + "distribution and only if you received the program in object code or executable form "
    + "with such an offer, in accord with Subsection b
above.)\n"
    + "\n"
    + "The source code for a work means the preferred form of the work for making "
    + "modifications to it. For an executable work, complete source code means all the source "
    + "code for all modules it contains, plus any associated interface definition files, plus "
    + "the scripts used to control compilation and installation of the executable. However, "
    + "as a special exception, the source code distributed need not include anything that is "

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    + "normally distributed (in either source or binary form) with the major components "
    + "(compiler, kernel, and so on) of the operating system on which the executable runs, "
    + "unless that component itself accompanies the executable.\n"
    + "\n"
    + "If distribution of executable or object code is made by offering access to copy from a "
    + "designated place, then offering equivalent access to copy the source code from the "

    + "same place counts as distribution of the source code, even though third parties are "
    + "not compelled to copy the source along with the object code.\n"
    + "\n"
    + "4. You may not copy, modify, sublicense, or distribute the Program except as expressly "
    + "provided under this License. Any attempt otherwise to copy, modify, sublicense or "
    + "distribute the Program is void, and will automatically terminate your rights under "
    + "this License. However, parties who have received copies, or rights, from you under "
    + "this License will not have their licenses terminated so long as such parties remain in "
    + "full compliance."
    + "\n"
    + "5. You are not required to accept this License, since you have not signed it. However, "
    + "nothing else grants you permission to modify or distribute the Program or its "
    + "derivative works. These actions are prohibited by law if you do not accept
this "
    + "License. Therefore, by modifying or distributing the Program (or any work based on the "
    + "Program), you indicate your acceptance of this License to do so, and all its terms and "
    + "conditions for copying, distributing or modifying the Program or works based on it.\n"
    + "\n"
    + "6. Each time you redistribute the Program (or any work based on the Program), the "
    + "recipient automatically receives a license from the original licensor to copy, "
    + "distribute or modify the Program subject to these terms and conditions. You may not "
    + "impose any further restrictions on the recipients' exercise of the rights granted "
    + "herein. You are not responsible for enforcing compliance by third parties to this "
    + "License."
    + "\n"
    + "7. If, as a consequence of a court judgment or allegation of patent infringement or "
    + "for any other reason (not limited to patent
issues), conditions are imposed on you "
    + "(whether by court order, agreement or otherwise) that contradict the conditions of "
    + "this License, they do not excuse you from the conditions of this License. If you "
    + "cannot distribute so as to satisfy simultaneously your obligations under this License "
    + "and any other pertinent obligations, then as a consequence you may not distribute the "
    + "Program at all. For example, if a patent license would not permit royalty-free "
    + "redistribution of the Program by all those who receive copies directly or indirectly "
    + "through you, then the only way you could satisfy both it and this License would be to "
    + "refrain entirely from distribution of the Program.\n"
    + "\n"
    + "If any portion of this section is held invalid or unenforceable under any particular "
    + "circumstance, the balance of the section is intended to apply and the section as a
"
    + "whole is intended to apply in other circumstances.\n"
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    + "\n"
    + "It is not the purpose of this section to induce you to infringe any patents or other "
    + "property right claims or to contest validity of any such claims; this section has the "
    + "sole purpose of protecting the integrity of the free software distribution system, "
    + "which is implemented by public license practices. Many people have made generous "
    + "contributions to the wide range of software distributed through that system in "
    + "reliance on consistent application of that system; it is up to the author/donor to "
    + "decide if he or she is willing to distribute software through any other system and a "
    + "licensee cannot impose that choice.\n"
    + "\n"
    + "This section is intended to make thoroughly clear what is believed to be a consequence "
    + "of the rest of this License.\n"
    + "\n"

 + "8. If the distribution and/or use of the Program is restricted in certain countries "
    + "either by patents or by copyrighted interfaces, the original copyright holder who "
    + "places the Program under this License may add an explicit geographical distribution "
    + "limitation excluding those countries, so that distribution is permitted only in or "
    + "among countries not thus excluded. In such case, this License incorporates the "
    + "limitation as if written in the body of this License.\n"
    + "\n"
    + "9. The Free Software Foundation may publish revised and/or new versions of the General "
    + "Public License from time to time. Such new versions will be similar in spirit to the "
    + "present version, but may differ in detail to address new problems or concerns.\n"
    + "\n"
    + "Each version is given a distinguishing version number. If the Program specifies a "
    + "version number of this
License which applies to it and \"any later version\", you have "
    + "the option of following the terms and conditions either of that version or of any "
    + "later version published by the Free Software Foundation. If the Program does not "
    + "specify a version number of this License, you may choose any version ever published by "
    + "the Free Software Foundation.\n"
    + "\n"
    + "10. If you wish to incorporate parts of the Program into other free programs whose "
    + "distribution conditions are different, write to the author to ask for permission. For "
    + "software which is copyrighted by the Free Software Foundation, write to the Free "
    + "Software Foundation; we sometimes make exceptions for this. Our decision will be "
    + "guided by the two goals of preserving the free status of all derivatives of our free "
    + "software and of promoting the sharing and reuse of software generally.\n"

 + "\n"
    + "NO WARRANTY\n"
    + "\n"
    + "11. BECAUSE THE PROGRAM IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR
THE "
    + "PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE
STATED IN "
    + "WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM \"AS
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IS\" "
    + "WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED "
    + "TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. "
    + "THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD "
    + "THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR "
    + "CORRECTION.\n"
    + "\n"
    + "12. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY "
    + "COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE PROGRAM AS "
    + "PERMITTED
 ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, "
    + "INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE "
    + "PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE "
    + "OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE "
    + "WITH ANY OTHER PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE "
    + "POSSIBILITY OF SUCH DAMAGES.\n"
    + "\n"
    + "END OF TERMS AND CONDITIONS\n"
    + "\n"
    + "\n"
    + "How to Apply These Terms to Your New Programs\n"
    + "\n"
    + "If you develop a new program, and you want it to be of the greatest possible use to "
    + "the public, the best way to achieve this is to make it free software which everyone "
    + "can redistribute and change under these terms.\n"
    + "\n"
    + "To do so, attach the following notices
 to the program.  It is safest to attach them to "
    + "the start of each source file to most effectively convey the exclusion of warranty; "
    + "and each file should have at least the \"copyright\" line and a pointer to where the "
    + "full notice is found.\n"
    + "\n"
    + "<one line to give the program's name and a brief idea of what it does.>\n"
    + "Copyright (C) <year>  <name of author>\n"
    + "\n"
    + "This program is free software; you can redistribute it and/or modify it under the "
    + "terms of the GNU General Public License as published by the Free Software Foundation; "
    + "either version 2 of the License, or (at your option) any later version.\n"
```

```
    + "\n"
    + "This program is distributed in the hope that it will be useful, but WITHOUT ANY "
    + "WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A "
    + "PARTICULAR PURPOSE.  See the GNU General Public
License for more details.\n"
    + "\n"
    + "You should have received a copy of the GNU General Public License along with this "
    + "program; if not, write to the Free Software Foundation, Inc., 59 Temple Place, Suite "
    + "330, Boston, MA  02111-1307  USA\n"
    + "\n"
    + "Also add information on how to contact you by electronic and paper mail.\n"
    + "\n"
    + "If the program is interactive, make it output a short notice like this when it starts "
    + "in an interactive mode:\n"
    + "\n"
    + "Gnomovision version 69, Copyright (C) year name of author Gnomovision comes with "
    + "ABSOLUTELY NO WARRANTY; for details type `show w'.\n"
    + "This is free software, and you are welcome to redistribute it under certain "
    + "conditions; type `show c' for details.\n"
    + "\n"
    + "The hypothetical commands `show w' and `show c' should show the appropriate parts of "
    + "the
General Public License.  Of course, the commands you use may be called something "
    + "other than `show w' and `show c'; they could even be mouse-clicks or menu items"
    + "--whatever suits your program.\n"
    + "\n"
    + "You should also get your employer (if you work as a programmer) or your school, if "
    + "any, to sign a \"copyright disclaimer\" for the program, if necessary.  Here is a "
    + "sample; alter the names:\n"
    + "\n"
    + "Yoyodyne, Inc., hereby disclaims all copyright interest in the program `Gnomovision' "
    + "(which makes passes at compilers) written by James Hacker.\n"
    + "\n"
    + "<signature of Ty Coon>, 1 April 1989\n"
    + "Ty Coon, President of Vice\n"
    + "\n"
    + "This General Public License does not permit incorporating your program into "
    + "proprietary programs.  If your program is a subroutine library, you may consider it "
    + "more useful
to permit linking proprietary applications with the library.  If this is "
    + "what you want to do, use the GNU Library General Public License instead of this "
    + "License.\n";

  /** The GNU Lesser General Public Licence. */
  public static final String LGPL = "GNU LESSER GENERAL PUBLIC LICENSE\n"
    + "\n"
    + "Version 2.1, February 1999\n"
    + "\n"
```

```
    + "Copyright (C) 1991, 1999 Free Software Foundation, Inc.\n"
    + "59 Temple Place, Suite 330, Boston, MA  02111-1307  USA\n"
    + "Everyone is permitted to copy and distribute verbatim copies of this license document, "
    + "but changing it is not allowed.\n"
    + "\n"
    + "[This is the first released version of the Lesser GPL.  It also counts as the "
    + "successor of the GNU Library Public License, version 2, hence the version number "
    + "2.1.]\n"
    + "\n"
    + "Preamble\n"
    + "\n"
    + "The licenses for most
software are designed to take away your freedom to share and "
    + "change it. By contrast, the GNU General Public Licenses are intended to guarantee your "
    + "freedom to share and change free software--to make sure the software is free for all "
    + "its users.\n"
    + "\n"
    + "This license, the Lesser General Public License, applies to some specially designated "
    + "software packages--typically libraries--of the Free Software Foundation and other "
    + "authors who decide to use it. You can use it too, but we suggest you first think "
    + "carefully about whether this license or the ordinary General Public License is the "
    + "better strategy to use in any particular case, based on the explanations below.\n"
    + "\n"
    + "When we speak of free software, we are referring to freedom of use, not price. Our "
    + "General Public Licenses are designed to make sure that you have the freedom to "

    + "distribute copies of free software (and charge for this service if you wish); that you "
    + "receive source code or can get it if you want it; that you can change the software and "
    + "use pieces of it in new free programs; and that you are informed that you can do these "
    + "things.\n"
    + "\n"
    + "To protect your rights, we need to make restrictions that forbid distributors to deny "
    + "you these rights or to ask you to surrender these rights. These restrictions translate "
    + "to certain responsibilities for you if you distribute copies of the library or if you "
    + "modify it.\n"
    + "\n"
    + "For example, if you distribute copies of the library, whether gratis or for a fee, you "
    + "must give the recipients all the rights that we gave you. You must make sure that "
    + "they, too, receive or can get the source code. If you link other code with the "
    + "library, you must
provide complete object files to the recipients, so that they can "
    + "relink them with the library after making changes to the library and recompiling it. "
    + "And you must show them these terms so they know their rights.\n"
    + "\n"
    + "We protect your rights with a two-step method: (1) we copyright the library, and (2) "
    + "we offer you this license, which gives you legal permission to copy, distribute and/or "
    + "modify the library.\n"
    + "\n"
```

```
    + "To protect each distributor, we want to make it very clear that there is no warranty "
    + "for the free library. Also, if the library is modified by someone else and passed on, "
    + "the recipients should know that what they have is not the original version, so that "
    + "the original author's reputation will not be affected by problems that might be "
    + "introduced by others.\n"
    + "\n"
    + "Finally, software patents pose
a constant threat to the existence of any free program. "
    + "We wish to make sure that a company cannot effectively restrict the users of a free "
    + "program by obtaining a restrictive license from a patent holder. Therefore, we insist "
    + "that any patent license obtained for a version of the library must be consistent with "
    + "the full freedom of use specified in this license.\n"
    + "\n"
    + "Most GNU software, including some libraries, is covered by the ordinary GNU General "
    + "Public License. This license, the GNU Lesser General Public License, applies to "
    + "certain designated libraries, and is quite different from the ordinary General Public "
    + "License. We use this license for certain libraries in order to permit linking those "
    + "libraries into non-free programs.\n"
    + "\n"
    + "When a program is linked with a library, whether statically or using a shared library, "

  + "the combination of the two is legally speaking a combined work, a derivative of the "
    + "original library. The ordinary General Public License therefore permits such linking "
    + "only if the entire combination fits its criteria of freedom. The Lesser General Public "
    + "License permits more lax criteria for linking other code with the library.\n"
    + "\n"
    + "We call this license the \"Lesser\" General Public License because it does Less to "
    + "protect the user's freedom than the ordinary General Public License. It also provides "
    + "other free software developers Less of an advantage over competing non-free programs. "
    + "These disadvantages are the reason we use the ordinary General Public License for many "
    + "libraries. However, the Lesser license provides advantages in certain special "
    + "circumstances.\n"
    + "\n"
    + "For example, on rare occasions, there may be a special
need to encourage the widest "
    + "possible use of a certain library, so that it becomes a de-facto standard. To achieve "
    + "this, non-free programs must be allowed to use the library. A more frequent case is "
    + "that a free library does the same job as widely used non-free libraries. In this case, "
    + "there is little to gain by limiting the free library to free software only, so we use "
    + "the Lesser General Public License.\n"
    + "\n"
    + "In other cases, permission to use a particular library in non-free programs enables a "
    + "greater number of people to use a large body of free software. For example, permission "
    + "to use the GNU C Library in non-free programs enables many more people to use the "
    + "whole GNU operating system, as well as its variant, the GNU/Linux operating system.\n"
    + "\n"
    + "Although the Lesser General Public License is Less protective of the users' freedom,
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"
+ "it does ensure that the user of a program that is linked with the Library has the "
+ "freedom and the wherewithal to run that program using a modified version of the "
+ "Library.\n"
+ "\n"
+ "The precise terms and conditions for copying, distribution and modification follow. "
+ "Pay close attention to the difference between a \"work based on the library\" and a "
+ "\"work that uses the library\". The former contains code derived from the library, "
+ "whereas the latter must be combined with the library in order to run.\n"
+ "\n"
+ "TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION\n"
+ "\n"
+ "0. This License Agreement applies to any software library or other program which "
+ "contains a notice placed by the copyright holder or other authorized party saying it "
+ "may be distributed under the terms of this Lesser General Public License
(also called "
+ "\"this License\"). Each licensee is addressed as \"you\"."
+ "\n"
+ "A \"library\" means a collection of software functions and/or data prepared so as to "
+ "be conveniently linked with application programs (which use some of those functions "
+ "and data) to form executables.\n"
+ "\n"
+ "The \"Library\", below, refers to any such software library or work which has been "
+ "distributed under these terms. A \"work based on the Library\" means either the "
+ "Library or any derivative work under copyright law: that is to say, a work containing "
+ "the Library or a portion of it, either verbatim or with modifications and/or "
+ "translated straightforwardly into another language. (Hereinafter, translation is "
+ "included without limitation in the term \"modification\".)\n"
+ "\n"
+ "\"Source code\" for a work means the preferred form of
the work for making "
+ "modifications to it. For a library, complete source code means all the source code for "
+ "all modules it contains, plus any associated interface definition files, plus the "
+ "scripts used to control compilation and installation of the library.\n"
+ "\n"
+ "Activities other than copying, distribution and modification are not covered by this "
+ "License; they are outside its scope. The act of running a program using the Library is "
+ "not restricted, and output from such a program is covered only if its contents "
+ "constitute a work based on the Library (independent of the use of the Library in a "
+ "tool for writing it). Whether that is true depends on what the Library does and what "
+ "the program that uses the Library does."
+ "\n"
+ "1. You may copy and distribute verbatim copies of the Library's complete source code "
+ "as you receive
it, in any medium, provided that you conspicuously and appropriately "
+ "publish on each copy an appropriate copyright notice and disclaimer of warranty; keep "
+ "intact all the notices that refer to this License and to the absence of any warranty; "
+ "and distribute a copy of this License along with the Library.\n"

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    + "\n"
    + "You may charge a fee for the physical act of transferring a copy, and you may at your "
    + "option offer warranty protection in exchange for a fee.\n"
    + "\n"
    + "2. You may modify your copy or copies of the Library or any portion of it, thus "
    + "forming a work based on the Library, and copy and distribute such modifications or "
    + "work under the terms of Section 1 above, provided that you also meet all of these "
    + "conditions:\n"
    + "\n"
    + "*    a) The modified work must itself be a software library.\n"
    + "*    b) You must cause the
files modified to carry prominent notices stating that you "
    + "changed the files and the date of any change.\n"
    + "*    c) You must cause the whole of the work to be licensed at no charge to all third "
    + "parties under the terms of this License.\n"
    + "*    d) If a facility in the modified Library refers to a function or a table of data "
    + "to be supplied by an application program that uses the facility, other than as an "
    + "argument passed when the facility is invoked, then you must make a good faith effort "
    + "to ensure that, in the event an application does not supply such function or table, "
    + "the facility still operates, and performs whatever part of its purpose remains "
    + "meaningful.\n"
    + "\n"
    + "(For example, a function in a library to compute square roots has a purpose that is "
    + "entirely well-defined independent of the application. Therefore, Subsection 2d "
     + "requires that any application-supplied function or table used by this function must be "
    + "optional: if the application does not supply it, the square root function must still "
    + "compute square roots.)\n"
    + "\n"
    + "These requirements apply to the modified work as a whole. If identifiable sections of "
    + "that work are not derived from the Library, and can be reasonably considered "
    + "independent and separate works in themselves, then this License, and its terms, do not "
    + "apply to those sections when you distribute them as separate works. But when you "
    + "distribute the same sections as part of a whole which is a work based on the Library, "
    + "the distribution of the whole must be on the terms of this License, whose permissions "
    + "for other licensees extend to the entire whole, and thus to each and every part "
    + "regardless of who wrote it.\n"
    + "\n"

 + "Thus, it is not the intent of this section to claim rights or contest your rights to "
    + "work written entirely by you; rather, the intent is to exercise the right to control "
    + "the distribution of derivative or collective works based on the Library.\n"
    + "\n"
    + "In addition, mere aggregation of another work not based on the Library with the "
    + "Library (or with a work based on the Library) on a volume of a storage or distribution "
    + "medium does not bring the other work under the scope of this License.\n"
    + "\n"
    + "3. You may opt to apply the terms of the ordinary GNU General Public License instead "
    + "of this License to a given copy of the Library. To do this, you must alter all the "
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    + "notices that refer to this License, so that they refer to the ordinary GNU General "
    + "Public License, version 2, instead of to this License. (If a newer version than "
    + "version 2 of
the ordinary GNU General Public License has appeared, then you can "
    + "specify that version instead if you wish.) Do not make any other change in these "
    + "notices.\n"
    + "\n"
    + "Once this change is made in a given copy, it is irreversible for that copy, so the "
    + "ordinary GNU General Public License applies to all subsequent copies and derivative "
    + "works made from that copy.\n"
    + "\n"
    + "This option is useful when you wish to copy part of the code of the Library into a "
    + "program that is not a library.\n"
    + "\n"
    + "4. You may copy and distribute the Library (or a portion or derivative of it, under "
    + "Section 2) in object code or executable form under the terms of Sections 1 and 2 above "
    + "provided that you accompany it with the complete corresponding machine-readable source "
    + "code, which must be distributed under the terms of Sections 1 and 2 above
on a medium "
    + "customarily used for software interchange.\n"
    + "\n"
    + "If distribution of object code is made by offering access to copy from a designated "
    + "place, then offering equivalent access to copy the source code from the same place "
    + "satisfies the requirement to distribute the source code, even though third parties are "
    + "not compelled to copy the source along with the object code.\n"
    + "\n"
    + "5. A program that contains no derivative of any portion of the Library, but is "
    + "designed to work with the Library by being compiled or linked with it, is called a "
    + "\"work that uses the Library\". Such a work, in isolation, is not a derivative work of "
    + "the Library, and therefore falls outside the scope of this License.\n"
    + "\n"
    + "However, linking a \"work that uses the Library\" with the Library creates an "
    + "executable that is a derivative
of the Library (because it contains portions of the "
    + "Library), rather than a \"work that uses the library\". The executable is therefore "
    + "covered by this License. Section 6 states terms for distribution of such executables.\n"
    + "\n"
    + "When a \"work that uses the Library\" uses material from a header file that is part of "
    + "the Library, the object code for the work may be a derivative work of the Library even "
    + "though the source code is not. Whether this is true is especially significant if the "
    + "work can be linked without the Library, or if the work is itself a library. The "
    + "threshold for this to be true is not precisely defined by law.\n"
    + "\n"
    + "If such an object file uses only numerical parameters, data structure layouts and "
    + "accessors, and small macros and small inline functions (ten lines or less in length), "
    + "then the use of the object file
is unrestricted, regardless of whether it is legally a "
    + "derivative work. (Executables containing this object code plus portions of the Library "
```

```
    + "will still fall under Section 6.)\n"
    + "\n"
    + "Otherwise, if the work is a derivative of the Library, you may distribute the object "
    + "code for the work under the terms of Section 6. Any executables containing that work "
    + "also fall under Section 6, whether or not they are linked directly with the Library "
    + "itself.\n"
    + "\n"
    + "6. As an exception to the Sections above, you may also combine or link a \"work that "
    + "uses the Library\" with the Library to produce a work containing portions of the "
    + "Library, and distribute that work under terms of your choice, provided that the terms "
    + "permit modification of the work for the customer's own use and reverse engineering for "
    + "debugging such modifications.\n"
     + "\n"
    + "You must give prominent notice with each copy of the work that the Library is used in "
    + "it and that the Library and its use are covered by this License. You must supply a "
    + "copy of this License. If the work during execution displays copyright notices, you "
    + "must include the copyright notice for the Library among them, as well as a reference "
    + "directing the user to the copy of this License. Also, you must do one of these "
    + "things:\n"
    + "\n"
    + "*    a) Accompany the work with the complete corresponding machine-readable source "
    + "code for the Library including whatever changes were used in the work (which must be "
    + "distributed under Sections 1 and 2 above); and, if the work is an executable linked "
    + "with the Library, with the complete machine-readable \"work that uses the Library\", "
    + "as object code and/or source code, so that the user
can modify the Library and then "
    + "relink to produce a modified executable containing the modified Library. (It is "
    + "understood that the user who changes the contents of definitions files in the Library "
    + "will not necessarily be able to recompile the application to use the modified "
    + "definitions.)\n"
    + "*    b) Use a suitable shared library mechanism for linking with the Library. A "
    + "suitable mechanism is one that (1) uses at run time a copy of the library already "
    + "present on the user's computer system, rather than copying library functions into the "
    + "executable, and (2) will operate properly with a modified version of the library, if "
    + "the user installs one, as long as the modified version is interface-compatible with "
    + "the version that the work was made with.\n"
    + "*    c) Accompany the work with a written offer, valid for at least three years, to "
    +
"give the same user the materials specified in Subsection 6a, above, for a charge no "
    + "more than the cost of performing this distribution.\n"
    + "*    d) If distribution of the work is made by offering access to copy from a "
    + "designated place, offer equivalent access to copy the above specified materials from "
    + "the same place.\n"
    + "*    e) Verify that the user has already received a copy of these materials or that "
    + "you have already sent this user a copy.\n"
    + "\n"
    + "For an executable, the required form of the \"work that uses the Library\" must "
    + "include any data and utility programs needed for reproducing the executable from it. "
```

```
    + "However, as a special exception, the materials to be distributed need not include "
    + "anything that is normally distributed (in either source or binary form) with the major "
    + "components (compiler, kernel, and so on) of the operating
system on which the "
    + "executable runs, unless that component itself accompanies the executable.\n"
    + "\n"
    + "It may happen that this requirement contradicts the license restrictions of other "
    + "proprietary libraries that do not normally accompany the operating system. Such a "
    + "contradiction means you cannot use both them and the Library together in an executable "
    + "that you distribute.\n"
    + "\n"
    + "7. You may place library facilities that are a work based on the Library side-by-side "
    + "in a single library together with other library facilities not covered by this "
    + "License, and distribute such a combined library, provided that the separate "
    + "distribution of the work based on the Library and of the other library facilities is "
    + "otherwise permitted, and provided that you do these two things:\n"
    + "\n"
    + "*    a) Accompany the combined library
with a copy of the same work based on the "
    + "Library, uncombined with any other library facilities. This must be distributed under "
    + "the terms of the Sections above.\n"
    + "*    b) Give prominent notice with the combined library of the fact that part of it is "
    + "a work based on the Library, and explaining where to find the accompanying uncombined "
    + "form of the same work.\n"
    + "\n"
    + "8. You may not copy, modify, sublicense, link with, or distribute the Library except "
    + "as expressly provided under this License. Any attempt otherwise to copy, modify, "
    + "sublicense, link with, or distribute the Library is void, and will automatically "
    + "terminate your rights under this License. However, parties who have received copies, "
    + "or rights, from you under this License will not have their licenses terminated so "
    + "long as such parties remain in full compliance.\n"
     + "\n"
    + "9. You are not required to accept this License, since you have not signed it. However, "
    + "nothing else grants you permission to modify or distribute the Library or its "
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    + "distribute, link with or modify the Library subject to these terms and conditions. You "
    + "may not impose any further restrictions on the recipients' exercise of the rights
"
    + "granted herein. You are not responsible for enforcing compliance by third parties with "
    + "this License.\n"
    + "\n"
    + "11. If, as a consequence of a court judgment or allegation of patent infringement or "
```

+ "for any other reason (not limited to patent issues), conditions are imposed on you "
+ "(whether by court order, agreement or otherwise) that contradict the conditions of "
+ "this License, they do not excuse you from the conditions of this License. If you "
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and this License would be to "
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+ "\n"
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she is willing to distribute software through any other system and a "
+ "licensee cannot impose that choice.\n"
+ "\n"
+ "This section is intended to make thoroughly clear what is believed to be a consequence "
+ "of the rest of this License.\n"
+ "\n"
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+ "POSSIBILITY OF SUCH DAMAGES.\n"
+ "\n"
+ "END OF TERMS AND CONDITIONS\n"
+ "\n"
+ "\n"
+ "How to Apply These Terms to Your New Libraries\n"
+ "\n"
+ "If you develop a new library, and you want it to be of the greatest possible use to "
+ "the public, we recommend making it free software that everyone can redistribute and "

```
    + "change. You can do so by permitting redistribution under these terms (or, "
    + "alternatively, under the terms of the ordinary General Public License).\n"
    + "\n"
    + "To apply these terms, attach the following notices to the library.  It is safest to "
    + "attach them to the start of each source file to most effectively convey the exclusion "
    + "of warranty; and each file should have at least the \"copyright\" line and a pointer "
    + "to where the full notice is found.\n"
    + "\n"
    + "<one line to give the library's name and a brief idea of what it does.>\n"
    + "Copyright (C) <year>  <name of author>\n"
    + "\n"
    + "This library is free software; you can redistribute it and/or modify it under the
"
    + "terms of the GNU Lesser General Public License as published by the Free Software "
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    + "\n"
    + "This library is distributed in the hope that it will be useful, but WITHOUT ANY "
    + "WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A "
    + "PARTICULAR PURPOSE.  See the GNU Lesser General Public License for more details.\n"
    + "\n"
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    + "this library; if not, write to the Free Software Foundation, Inc., 59 Temple Place, "
    + "Suite 330, Boston, MA  02111-1307  USA\n"
    + "\n"
    + "Also add information on how to contact you by electronic and paper mail.\n"
    + "\n"
    + "You should also get your employer (if you work as a programmer) or your school, if "
    + "any, to
sign a \"copyright disclaimer\" for the library, if necessary.  Here is a "
    + "sample; alter the names:\n"
    + "\n"
    + "Yoyodyne, Inc., hereby disclaims all copyright interest in the library `Frob' (a "
    + "library for tweaking knobs) written by James Random Hacker.\n"
    + "\n"
    + "<signature of Ty Coon>, 1 April 1990\n"
    + "Ty Coon, President of Vice\n"
    + "\n"
    + "That's all there is to it!\n";

  /** The singleton instance of this class. */
  private static Licences singleton;

  /**
   * Returns a reference to this class.
   *
   * @return the instance reference.
   */
  public static Licences getInstance() {
```

```
        if (singleton == null) {
            singleton = new Licences();
        }
        return singleton;
    }

    /**
     * Returns the GPL text in a non static way to prevent the compiler
     * to copy the contents of the field.
     *
     * @return the GPL licence
   text.
     */
    public String getGPL() {
        return GPL;
    }

    /**
     * Returns the LGPL text in a non static way to prevent the compiler
     * to copy the contents of the field.
     *
     * @return the LGPL licence text.
     */
    public String getLGPL() {
        return LGPL;
    }
}
```

1.362 six 1.16.0

1.362.1 Available under license :

The primary author and maintainer of six is Benjamin Peterson. He would like to acknowledge the following people who submitted bug reports, pull requests, and otherwise worked to improve six:

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Berker Peksag
Sridhar Ratnakumar
Erik Rose
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Miroslav Shubernetskiy
Eli Schwartz
Anthony Sottile
Victor Stinner
Jonathan Vanasco
Lucas Wiman
Jingxin Zhu

If you think you belong on this list, please let me know! --Benjamin
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1.363 aws-sdk-go-v2 1.30.3

1.363.1 Available under license :

```
name: License Scan

on: [pull_request]

jobs:
 licensescan:
   name: License Scan
   runs-on: ubuntu-latest
   strategy:
     matrix:
       python-version: [3.9]

   steps:
     - name: Checkout target
       uses: actions/checkout@v2
       with:
         path: sdkbase
         ref: ${{ github.base_ref }}
     - name: Checkout this ref
       uses: actions/checkout@v2
       with:
         path: new-ref
         fetch-depth: 0
     - name: Get Diff
       run: git --git-dir ./new-ref/.git diff --name-only --diff-filter=ACMRT ${{ github.event.pull_request.base.sha }}
${{ github.sha }} > refDiffFiles.txt
     - name: Get Target Files
       run: git --git-dir ./sdkbase/.git ls-files | grep -xf refDiffFiles.txt - > targetFiles.txt
     - name: Checkout scancode
       uses: actions/checkout@v2
       with:
         repository: nexB/scancode-toolkit
         path: scancode-toolkit
         fetch-depth: 1
     - name: Set up Python ${{ matrix.python-version }}
        uses: actions/setup-python@v2
       with:
         python-version: ${{ matrix.python-version }}
     # ScanCode
     - name: Self-configure scancode
       working-directory: ./scancode-toolkit
       run: ./scancode --help
     - name: Run Scan code on target
```

```
      run: cat targetFiles.txt | while read filename; do echo ./sdkbase/$filename; done | xargs ./scancode-toolkit/scancode -l -n 30 --json-pp - | grep short_name | sort | uniq >> old-licenses.txt
    - name: Run Scan code on pr ref
      run: cat refDiffFiles.txt | while read filename; do echo ./new-ref/$filename; done | xargs ./scancode-toolkit/scancode -l -n 30 --json-pp - | grep short_name | sort | uniq >> new-licenses.txt
    # compare
    - name: License test
      run: if ! cmp old-licenses.txt new-licenses.txt; then echo "Licenses differ! Failing."; exit -1; else echo "Licenses are the same. Success."; exit 0; fi
CreateLicense
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
  OperationInputValidation
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
 Build stack step
  ClientRequestID
  ComputeContentLength
  UserAgent
  AddTimeOffsetMiddleware
  RecursionDetection
 Finalize stack step
  ResolveAuthScheme
  GetIdentity
  ResolveEndpointV2
  disableHTTPS
  ComputePayloadHash
  Retry
  RetryMetricsHeader
  setLegacyContextSigningOptions
  Signing
 Deserialize stack step
  AddRawResponseToMetadata
  ErrorCloseResponseBody
  CloseResponseBody
  ResponseErrorWrapper
  RequestIDRetriever
  OperationDeserializer
  AddTimeOffsetMiddleware
  RecordResponseTiming
  RequestResponseLogger
ListReceivedLicenses
 Initialize stack step
  RegisterServiceMetadata
```

```
 legacyEndpointContextSetter
 SetLogger
Serialize stack step
 setOperationInput
 ResolveEndpoint
 OperationSerializer
Build stack step
 ClientRequestID
 ComputeContentLength
 UserAgent
 AddTimeOffsetMiddleware
 RecursionDetection
Finalize stack step
 ResolveAuthScheme
 GetIdentity
 ResolveEndpointV2
 disableHTTPS
 ComputePayloadHash
 Retry
 RetryMetricsHeader
 setLegacyContextSigningOptions
 Signing
Deserialize stack step
 AddRawResponseToMetadata
 ErrorCloseResponseBody
 CloseResponseBody
 ResponseErrorWrapper
 RequestIDRetriever
 OperationDeserializer
 AddTimeOffsetMiddleware
 RecordResponseTiming
 RequestResponseLogger
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Checks out the specified license.
//
// If the account that created the license is the same that is performing the
```

```
// check out, you must specify the account as the beneficiary.
func (c *Client) CheckoutLicense(ctx context.Context, params *CheckoutLicenseInput, optFns ...func(*Options))
(*CheckoutLicenseOutput, error) {
 if params == nil {
  params = &CheckoutLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "CheckoutLicense", params, optFns,
c.addOperationCheckoutLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*CheckoutLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type CheckoutLicenseInput struct {

 //
 Checkout type.
 //
 // This member is required.
 CheckoutType types.CheckoutType

 // Unique, case-sensitive identifier that you provide to ensure the idempotency of
 // the request.
 //
 // This member is required.
 ClientToken *string

 // License entitlements.
 //
 // This member is required.
 Entitlements []types.EntitlementData

 // Key fingerprint identifying the license.
 //
 // This member is required.
 KeyFingerprint *string

 // Product SKU.
 //
 // This member is required.
 ProductSKU *string

 // License beneficiary.
```

```
 Beneficiary *string

 // Node ID.
 NodeId *string

 noSmithyDocumentSerde
}

type CheckoutLicenseOutput struct {

 // Checkout type.
 CheckoutType types.CheckoutType

 // Allowed license entitlements.
 EntitlementsAllowed []types.EntitlementData

 // Date and time at which the license checkout expires.
 Expiration *string

 // Date and time at which the license checkout is issued.
 IssuedAt *string

 // Amazon Resource Name (ARN) of the checkout license.
 LicenseArn
 *string

 // License consumption token.
 LicenseConsumptionToken *string

 // Node ID.
 NodeId *string

 // Signed token.
 SignedToken *string

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationCheckoutLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpCheckoutLicense{}, middleware.After)
 if err != nil {
  return err
```

```
}
err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpCheckoutLicense{}, middleware.After)
if err != nil {
 return err
}
if err := addProtocolFinalizerMiddlewares(stack, options, "CheckoutLicense"); err != nil {
 return fmt.Errorf("add protocol finalizers: %v", err)
}

if err = addlegacyEndpointContextSetter(stack, options); err != nil {
 return err
}
if err = addSetLoggerMiddleware(stack,
options); err != nil {
 return err
}
if err = addClientRequestID(stack); err != nil {
 return err
}
if err = addComputeContentLength(stack); err != nil {
 return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
 return err
}
if err = addComputePayloadSHA256(stack); err != nil {
 return err
}
if err = addRetry(stack, options); err != nil {
 return err
}
if err = addRawResponseToMetadata(stack); err != nil {
 return err
}
if err = addRecordResponseTiming(stack); err != nil {
 return err
}
if err = addClientUserAgent(stack, options); err != nil {
 return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
 return err
```

```
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
  return err
 }
 if err = addUserAgentRetryMode(stack,
 options); err != nil {
  return err
 }
 if err = addOpCheckoutLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opCheckoutLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opCheckoutLicense(region string) *awsmiddleware.RegisterServiceMetadata
{
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName: "CheckoutLicense",
 }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
```

```
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Creates a license.
func (c *Client) CreateLicense(ctx context.Context, params *CreateLicenseInput, optFns ...func(*Options))
(*CreateLicenseOutput, error) {
 if params == nil {
  params = &CreateLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "CreateLicense", params, optFns,
c.addOperationCreateLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*CreateLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type CreateLicenseInput struct {

 // License beneficiary.
 //
 // This member is required.
 Beneficiary *string

 // Unique, case-sensitive identifier that you provide to ensure the idempotency of
 // the request.
 //
 //
 This member is required.
 ClientToken *string

 // Configuration for consumption of the license. Choose a provisional
 // configuration for workloads running with continuous connectivity. Choose a
 // borrow configuration for workloads with offline usage.
 //
 // This member is required.
 ConsumptionConfiguration *types.ConsumptionConfiguration

 // License entitlements.
 //
 // This member is required.
```

```
 Entitlements []types.Entitlement

 // Home Region for the license.
 //
 // This member is required.
 HomeRegion *string

 // License issuer.
 //
 // This member is required.
 Issuer *types.Issuer

 // License name.
 //
 // This member is required.
 LicenseName *string

 // Product name.
 //
 // This member is required.
 ProductName *string

 // Product SKU.
 //
 // This member is required.
 ProductSKU *string

 // Date and time range during which the license is valid, in ISO8601-UTC format.
 //
 // This member is required.
 Validity *types.DatetimeRange

 // Information about
 the license.
 LicenseMetadata []types.Metadata

 noSmithyDocumentSerde
}

type CreateLicenseOutput struct {

 // Amazon Resource Name (ARN) of the license.
 LicenseArn *string

 // License status.
 Status types.LicenseStatus

 // License version.
```

```
 Version *string

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationCreateLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpCreateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpCreateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "CreateLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if
 err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
```

```
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return
 err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
  return err
 }
 if err = addUserAgentRetryMode(stack, options); err != nil {
  return err
 }
 if err = addOpCreateLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opCreateLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}
```

```
func newServiceMetadataMiddleware_opCreateLicense(region string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName:
 "CreateLicense",
 }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package grafana

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/grafana/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Removes the Grafana Enterprise license from a workspace.
func (c *Client) DisassociateLicense(ctx context.Context, params *DisassociateLicenseInput, optFns
...func(*Options)) (*DisassociateLicenseOutput, error) {
 if params == nil {
  params = &DisassociateLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "DisassociateLicense", params, optFns,
c.addOperationDisassociateLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*DisassociateLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type DisassociateLicenseInput struct {

 // The type of license to remove from the workspace.
 //
 // This member is required.
 LicenseType types.LicenseType

 //
```

```
 The ID of the workspace to remove the Grafana Enterprise license from.
 //
 // This member is required.
 WorkspaceId *string

 noSmithyDocumentSerde
}

type DisassociateLicenseOutput struct {

 // A structure containing information about the workspace.
 //
 // This member is required.
 Workspace *types.WorkspaceDescription

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationDisassociateLicenseMiddlewares(stack *middleware.Stack, options Options) (err
error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsRestjson1_serializeOpDisassociateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsRestjson1_deserializeOpDisassociateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "DisassociateLicense");
 err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
```

```
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil
 {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
  return err
 }
 if err = addUserAgentRetryMode(stack, options); err != nil {
  return err
 }
 if err = addOpDisassociateLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opDisassociateLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
```

```
 return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
 return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
 return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
 return err
 }
 return nil
}

func newServiceMetadataMiddleware_opDisassociateLicense(region string)
*awsmiddleware.RegisterServiceMetadata
 {
 return &awsmiddleware.RegisterServiceMetadata{
 Region:       region,
 ServiceID:    ServiceID,
 OperationName: "DisassociateLicense",
 }
}
CheckoutLicense
 Initialize stack step
 RegisterServiceMetadata
 legacyEndpointContextSetter
 SetLogger
 OperationInputValidation
 Serialize stack step
 setOperationInput
 ResolveEndpoint
 OperationSerializer
 Build stack step
 ClientRequestID
 ComputeContentLength
 UserAgent
 AddTimeOffsetMiddleware
 RecursionDetection
 Finalize stack step
 ResolveAuthScheme
 GetIdentity
 ResolveEndpointV2
 disableHTTPS
 ComputePayloadHash
 Retry
 RetryMetricsHeader
 setLegacyContextSigningOptions
```

Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
AddTimeOffsetMiddleware
RecordResponseTiming
RequestResponseLogger
DisassociateLicense
Initialize stack step
RegisterServiceMetadata
legacyEndpointContextSetter
SetLogger
OperationInputValidation
Serialize stack step
setOperationInput
ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
UserAgent
AddTimeOffsetMiddleware
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
AddTimeOffsetMiddleware
RecordResponseTiming
RequestResponseLogger

```
CheckoutBorrowLicense
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
  OperationInputValidation
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
 Build stack step
  ClientRequestID
  ComputeContentLength
  UserAgent
  AddTimeOffsetMiddleware
  RecursionDetection
 Finalize stack step
  ResolveAuthScheme
  GetIdentity
  ResolveEndpointV2
  disableHTTPS
  ComputePayloadHash
  Retry
  RetryMetricsHeader
  setLegacyContextSigningOptions
  Signing
 Deserialize stack step
  AddRawResponseToMetadata
  ErrorCloseResponseBody
  CloseResponseBody
  ResponseErrorWrapper
  RequestIDRetriever
  OperationDeserializer
  AddTimeOffsetMiddleware
  RecordResponseTiming
  RequestResponseLogger
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)
```

```
// Lists received licenses.
func (c *Client) ListReceivedLicenses(ctx context.Context, params *ListReceivedLicensesInput, optFns
...func(*Options)) (*ListReceivedLicensesOutput, error) {
 if params == nil {
  params = &ListReceivedLicensesInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "ListReceivedLicenses", params, optFns,
c.addOperationListReceivedLicensesMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*ListReceivedLicensesOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type ListReceivedLicensesInput struct {

 // Filters to scope the results. The following filters are supported:
 //
 //   - ProductSKU
 //
 //   - Status
 //
 //
  - Fingerprint
 //
 //   - IssuerName
 //
 //   - Beneficiary
 Filters []types.Filter

 // Amazon Resource Names (ARNs) of the licenses.
 LicenseArns []string

 // Maximum number of results to return in a single call.
 MaxResults *int32

 // Token for the next set of results.
 NextToken *string

 noSmithyDocumentSerde
}

type ListReceivedLicensesOutput struct {
```

```
// Received license details.
Licenses []types.GrantedLicense

// Token for the next set of results.
NextToken *string

// Metadata pertaining to the operation's result.
ResultMetadata middleware.Metadata

noSmithyDocumentSerde
}

func (c *Client) addOperationListReceivedLicensesMiddlewares(stack *middleware.Stack, options Options) (err
error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpListReceivedLicenses{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpListReceivedLicenses{},
 middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "ListReceivedLicenses"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
```

```
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err
 = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
  return err
 }
 if err = addUserAgentRetryMode(stack, options); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opListReceivedLicenses(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
```

```
 return nil
}

func newServiceMetadataMiddleware_opListReceivedLicenses(region
 string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName: "ListReceivedLicenses",
 }
}
AssociateLicense
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
  OperationInputValidation
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
 Build stack step
  ClientRequestID
  ComputeContentLength
  UserAgent
  AddTimeOffsetMiddleware
  RecursionDetection
 Finalize stack step
  ResolveAuthScheme
  GetIdentity
  ResolveEndpointV2
  disableHTTPS
  ComputePayloadHash
  Retry
  RetryMetricsHeader
  setLegacyContextSigningOptions
  Signing
 Deserialize stack step
  AddRawResponseToMetadata
  ErrorCloseResponseBody
  CloseResponseBody
  ResponseErrorWrapper
  RequestIDRetriever
  OperationDeserializer
  AddTimeOffsetMiddleware
  RecordResponseTiming
  RequestResponseLogger
```

```
// Code generated by smithy-go-codegen DO NOT EDIT.

package grafana

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/grafana/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Assigns a Grafana Enterprise license to a workspace. To upgrade, you must use
// ENTERPRISE for the licenseType , and pass in a valid Grafana Labs token for the
// grafanaToken . Upgrading to Grafana Enterprise incurs additional fees. For more
// information, see [Upgrade a workspace to Grafana Enterprise].
//
// [Upgrade a workspace to Grafana Enterprise]: https://docs.aws.amazon.com/grafana/latest/userguide/upgrade-to-
Grafana-Enterprise.html
func (c *Client) AssociateLicense(ctx context.Context, params *AssociateLicenseInput, optFns ...func(*Options))
(*AssociateLicenseOutput, error) {
 if params == nil {
  params = &AssociateLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx,
 "AssociateLicense", params, optFns, c.addOperationAssociateLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*AssociateLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type AssociateLicenseInput struct {

 // The type of license to associate with the workspace.
 //
 // Amazon Managed Grafana workspaces no longer support Grafana Enterprise free
 // trials.
 //
 // This member is required.
 LicenseType types.LicenseType

 // The ID of the workspace to associate the license with.
```

```
 //
 // This member is required.
 WorkspaceId *string

 // A token from Grafana Labs that ties your Amazon Web Services account with a
 // Grafana Labs account. For more information, see [Link your account with Grafana Labs].
 //
 // [Link your account with Grafana Labs]: https://docs.aws.amazon.com/grafana/latest/userguide/upgrade-to-
Grafana-Enterprise.html#AMG-workspace-register-enterprise
 GrafanaToken *string

 noSmithyDocumentSerde
}

type AssociateLicenseOutput
 struct {

 // A structure containing data about the workspace.
 //
 // This member is required.
 Workspace *types.WorkspaceDescription

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationAssociateLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsRestjson1_serializeOpAssociateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsRestjson1_deserializeOpAssociateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "AssociateLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack,
```

```
 options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
  return err
 }
 if err = addUserAgentRetryMode(stack,
 options); err != nil {
  return err
 }
 if err = addOpAssociateLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opAssociateLicense(options.Region),
middleware.Before); err != nil {
```

```
 return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opAssociateLicense(region string)
*awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName: "AssociateLicense",
 }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Gets detailed information about the specified license.
func (c *Client) GetLicense(ctx context.Context, params *GetLicenseInput, optFns ...func(*Options))
(*GetLicenseOutput, error) {
 if params == nil {
  params = &GetLicenseInput{}
 }
```

```
 result, metadata, err := c.invokeOperation(ctx, "GetLicense", params, optFns,
c.addOperationGetLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*GetLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type GetLicenseInput struct {

 // Amazon Resource Name (ARN) of the license.
 //
 // This member is required.
 LicenseArn *string

 // License version.
 Version *string

 noSmithyDocumentSerde
}

type
 GetLicenseOutput struct {

 // License details.
 License *types.License

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationGetLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpGetLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpGetLicense{}, middleware.After)
 if err != nil {
  return err
 }
```

```
if err := addProtocolFinalizerMiddlewares(stack, options, "GetLicense"); err != nil {
 return fmt.Errorf("add protocol finalizers: %v", err)
}

if err = addlegacyEndpointContextSetter(stack, options); err != nil {
 return err
}
if err = addSetLoggerMiddleware(stack, options); err != nil {
 return err
}
if err = addClientRequestID(stack); err
!= nil {
 return err
}
if err = addComputeContentLength(stack); err != nil {
 return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
 return err
}
if err = addComputePayloadSHA256(stack); err != nil {
 return err
}
if err = addRetry(stack, options); err != nil {
 return err
}
if err = addRawResponseToMetadata(stack); err != nil {
 return err
}
if err = addRecordResponseTiming(stack); err != nil {
 return err
}
if err = addClientUserAgent(stack, options); err != nil {
 return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
 return err
}
if err = addTimeOffsetBuild(stack, c); err != nil {
 return err
}
if err = addUserAgentRetryMode(stack, options); err != nil {
```

```
 return err
 }
 if err = addOpGetLicenseValidationMiddleware(stack);
 err != nil {
 return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opGetLicense(options.Region), middleware.Before);
err != nil {
 return err
 }
 if err = addRecursionDetection(stack); err != nil {
 return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
 return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
 return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
 return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
 return err
 }
 return nil
}

func newServiceMetadataMiddleware_opGetLicense(region string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName: "GetLicense",
 }
}
ListLicenses
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
 Build stack step
  ClientRequestID
  ComputeContentLength
  UserAgent
```

AddTimeOffsetMiddleware
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
AddTimeOffsetMiddleware
RecordResponseTiming
RequestResponseLogger
AWS SDK for Go
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Copyright 2014-2015 Stripe, Inc.

```
{
  "smithy": "2.0",
  "shapes": {
    "com.amazonaws.licensemanagerlinuxsubscriptions#BoxInteger": {
      "type": "integer"
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#BoxLong": {
      "type": "long"
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#DeregisterSubscriptionProvider": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#DeregisterSubscriptionProviderRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#DeregisterSubscriptionProviderResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
        },
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ResourceNotFoundException"
```

```
            },

        {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
            },
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Remove a third-party subscription provider from the Bring Your Own License (BYOL) subscriptions \n\t\t\tregistered to your account.</p>",
            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/subscription/DeregisterSubscriptionProvider"
            },
            "smithy.api#idempotent": {}
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#DeregisterSubscriptionProviderRequest": {
        "type": "structure",
        "members": {
            "SubscriptionProviderArn": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn",
                 "traits": {
                    "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the subscription provider resource to deregister.</p>",
                    "smithy.api#required": {}
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#DeregisterSubscriptionProviderResponse": {
        "type": "structure",
        "members": {},
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#Filter": {
        "type": "structure",
        "members": {
            "Name": {
                "target": "smithy.api#String",
```

```
            "traits": {
                "smithy.api#documentation": "<p>The type of name to filter by.</p>"
             }
          },
          "Values": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringList",
            "traits": {
              "smithy.api#documentation": "<p>One or more values for the name to filter by.</p>"
            }
          },
          "Operator": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Operator",
            "traits": {
              "smithy.api#documentation": "<p>An operator for filtering results.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>A filter object that is used to return more specific results from a describe
operation.\n      Filters can be used to match a set of resources by specific criteria.</p>"
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#FilterList": {
        "type":
 "list",
        "member": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Filter"
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#GetRegisteredSubscriptionProvider": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#GetRegisteredSubscriptionProviderRequest"
        },
        "output": {
          "target":
"com.amazonaws.licensemanagerlinuxsubscriptions#GetRegisteredSubscriptionProviderResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ResourceNotFoundException"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
```

```
            },
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Get details for a Bring Your Own License (BYOL) subscription that's registered to your account.</p>",
            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/subscription/GetRegisteredSubscriptionProvider"
            },
            "smithy.api#idempotent": {}
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#GetRegisteredSubscriptionProviderRequest": {
        "type": "structure",
        "members": {
            "SubscriptionProviderArn": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn",
                "traits": {
                    "smithy.api#documentation":
"<p>The Amazon Resource Name (ARN) of the BYOL registration resource to get details for.</p>",
                    "smithy.api#required": {}
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#GetRegisteredSubscriptionProviderResponse": {
        "type": "structure",
        "members": {
            "SubscriptionProviderArn": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn",
                "traits": {
                    "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) for the BYOL registration resource specified in the request.</p>"
                }
            },
            "SubscriptionProviderSource": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderSource",

        "traits": {
                    "smithy.api#documentation": "<p>The subscription provider for the BYOL registration resource specified \n\t\t\tin the request.</p>"
```

```
            }
          },
          "SecretArn": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SecretArn",
            "traits": {
              "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the third-party access
secret stored in Secrets Manager for the BYOL \n\t\t\tregistration resource specified in the request.</p>"
            }
          },
          "SubscriptionProviderStatus": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderStatus",
            "traits": {
              "smithy.api#documentation": "<p>The status of the Linux subscription provider access token from the
last \n\t\t\tsuccessful subscription data request.</p>"
             }
          },
          "SubscriptionProviderStatusMessage": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The detailed message from your subscription provider token
status.</p>"
            }
          },
          "LastSuccessfulDataRetrievalTime": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The timestamp from the last time License Manager retrieved
subscription details \n\t\t\tfrom your registered third-party Linux subscription provider.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettings": {
        "type": "operation",
        "input": {
          "target":
 "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettingsRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettingsResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
          },
```

```
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
            },
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists the Linux subscriptions service settings for your account.</p>",
            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/subscription/GetServiceSettings"

            },
            "smithy.api#idempotent": {}
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettingsRequest": {
        "type": "structure",
        "members": {}
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettingsResponse": {
        "type": "structure",
        "members": {
            "LinuxSubscriptionsDiscovery": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscovery",
                "traits": {
                    "smithy.api#documentation": "<p>Lists if discovery has been enabled for Linux subscriptions.</p>"
                }
            },
            "LinuxSubscriptionsDiscoverySettings": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscoverySettings",
                "traits": {
                    "smithy.api#documentation": "<p>Lists
 the settings defined for Linux subscriptions discovery. The settings include if\n      Organizations integration has been enabled, and which Regions data will be aggregated from.</p>"
                }
            },
            "Status": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Status",
                "traits": {
                    "smithy.api#documentation": "<p>Indicates the status of Linux subscriptions settings being applied.</p>"
                }
            },
            "StatusMessage": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringMap",
```

```
            "traits": {
                "smithy.api#documentation": "<p>A message which details the Linux subscriptions service settings
current status.</p>"
            }
        },
        "HomeRegions": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringList",
             "traits": {
                "smithy.api#documentation": "<p>The Region in which License Manager displays the aggregated
data for Linux\n      subscriptions.</p>"
            }
        }
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#Instance": {
      "type": "structure",
      "members": {
        "AmiId": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The AMI ID used to launch the instance.</p>"
            }
        },
        "InstanceID": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The instance ID of the resource.</p>"
            }
        },
        "InstanceType": {
            "target": "smithy.api#String",
            "traits":
{
                "smithy.api#documentation": "<p>The instance type of the resource.</p>"
            }
        },
        "AccountID": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The account ID which owns the instance.</p>"
            }
        },
        "Status": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The status of the instance.</p>"
            }
        },
```

```
            "Region": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The Region the instance is running in.</p>"
               }
            },
            "UsageOperation": {
               "target": "smithy.api#String",

   "traits": {
                  "smithy.api#documentation": "<p>The usage operation of the instance. For more information, see For more information, see\n        <a href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/linux-subscriptions-usage-operation.html\">Usage\n        operation values</a> in the <i>License Manager User Guide</i>.</p>"
               }
            },
            "ProductCode": {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ProductCodeList",
               "traits": {
                  "smithy.api#documentation": "<p>The product code for the instance. For more information, see <a href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/linux-subscriptions-usage-operation.html\">Usage\n        operation values</a> in the <i>License Manager User Guide</i> .</p>"
               }
            },
            "LastUpdatedTime": {
               "target": "smithy.api#String",
                "traits": {
                  "smithy.api#documentation": "<p>The time in which the last discovery updated the instance details.</p>"
               }
            },
            "SubscriptionName": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The name of the license subscription that the instance uses.</p>"
               }
            },
            "OsVersion": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The operating system software version that runs on your instance.</p>"
               }
            },
            "SubscriptionProviderCreateTime": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The timestamp when you registered
```

```
 the third-party Linux subscription \n\t\t\tprovider for the subscription that the instance uses.</p>"
                }
            },
            "SubscriptionProviderUpdateTime": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The timestamp from the last time that the instance synced with the
registered \n\t\t\tthird-party Linux subscription provider.</p>"
                }
            },
            "DualSubscription": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>Indicates that you have two different license subscriptions for
\n\t\t\tthe same software on your instance.</p>"
                }
            },
            "RegisteredWithSubscriptionProvider": {
                "target": "smithy.api#String",
                "traits": {

      "smithy.api#documentation": "<p>Indicates that your instance uses a BYOL license subscription from \n\t\t\ta
third-party Linux subscription provider that you've registered with License Manager.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>Details discovered information about a running instance using Linux
subscriptions.</p>"
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#InstanceList": {
        "type": "list",
        "member": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Instance"
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException": {
        "type": "structure",
        "members": {
            "message": {
                "target": "smithy.api#String"
            }
        },
        "traits": {
            "smithy.api#documentation":
 "<p>An exception occurred with the service.</p>",
            "smithy.api#error": "server"
```

```
    }
  },
  "com.amazonaws.licensemanagerlinuxsubscriptions#LicenseManagerLinuxSubscriptions": {
    "type": "service",
    "version": "2018-05-10",
    "operations": [
      {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#DeregisterSubscriptionProvider"
      },
      {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#GetRegisteredSubscriptionProvider"
      },
      {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettings"
      },
      {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstances"
      },
      {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptions"
       },
      {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListRegisteredSubscriptionProviders"
      },
      {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListTagsForResource"
      },
      {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#RegisterSubscriptionProvider"
      },
      {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#TagResource"
      },
      {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UntagResource"
      },
      {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettings"
      }
    ],
    "traits": {
      "aws.api#service": {
        "sdkId": "License Manager Linux Subscriptions",
         "arnNamespace": "license-manager-linux-subscriptions",
        "cloudTrailEventSource": "license-manager-linux-subscriptions.amazonaws.com"
      },
      "aws.auth#sigv4": {
        "name": "license-manager-linux-subscriptions"
```

```
    },
    "aws.protocols#restJson1": {},
    "smithy.api#cors": {
      "additionalAllowedHeaders": [
        "*",
        "content-type",
        "x-amz-content-sha256",
        "x-amz-user-agent",
        "x-amzn-platform-id",
        "x-amzn-trace-id"
      ],
      "additionalExposedHeaders": [
        "x-amzn-errortype",
        "x-amzn-requestid",
        "x-amzn-trace-id"
      ]
    },
    "smithy.api#documentation": "<p>With License Manager,
 you can discover and track your commercial Linux subscriptions on running\n      Amazon EC2 instances.</p>",
    "smithy.api#title": "AWS License Manager Linux Subscriptions",
    "smithy.rules#endpointRuleSet": {
      "version": "1.0",
      "parameters": {
        "Region": {
          "builtIn": "AWS::Region",
          "required": false,
          "documentation": "The AWS region used to dispatch the request.",
          "type": "String"
        },
        "UseDualStack": {
          "builtIn": "AWS::UseDualStack",
          "required": true,
          "default": false,
          "documentation": "When true, use the dual-stack endpoint. If the configured endpoint does not
 support dual-stack, dispatching the request MAY return an error.",
           "type": "Boolean"
        },
        "UseFIPS": {
          "builtIn": "AWS::UseFIPS",
          "required": true,
          "default": false,
          "documentation": "When true, send this request to the FIPS-compliant regional endpoint. If the
 configured endpoint does not have a FIPS compliant endpoint, dispatching the request will return an error.",
          "type": "Boolean"
        },
        "Endpoint": {
          "builtIn": "SDK::Endpoint",
          "required": false,
```

```
            "documentation": "Override the endpoint used to send this request",
            "type": "String"
        }
    },
    "rules": [
        {
            "conditions": [
                {
                    "fn": "isSet",
                    "argv": [
                        {
                            "ref": "Endpoint"
                        }
                    ]
                }
            ],
            "rules": [
                {
                    "conditions": [
                        {
                            "fn": "booleanEquals",
                            "argv": [
                                {
                                    "ref": "UseFIPS"
                                },
                                true
                            ]
                        }

],
                    "error": "Invalid Configuration: FIPS and custom endpoint are not supported",
                    "type": "error"
                },
                {
                    "conditions": [],
                    "rules": [
                        {
                            "conditions": [
                                {
                                    "fn": "booleanEquals",
                                    "argv": [
                                        {
                                            "ref": "UseDualStack"
                                        },
                                        true
                                    ]
```

```
}
                        ],
                        "error": "Invalid Configuration: Dualstack and custom endpoint are not supported",
                        "type": "error"
                    },
                    {
                        "conditions": [],
                        "endpoint": {
                            "url": {
                                "ref": "Endpoint"
                            },
                            "properties": {},
                            "headers": {}
                        },
                        "type": "endpoint"
                    }
                ],
                "type": "tree"

            }
            ],
            "type": "tree"
        },
        {
            "conditions": [],
            "rules": [
                {
                    "conditions": [
                        {
                            "fn": "isSet",
                            "argv": [
                                {
                                    "ref": "Region"
                                }
                            ]
                        }
                    ],
                    "rules": [
                        {
                            "conditions": [
                                {

            "fn": "aws.partition",
                                    "argv": [
                                        {
                                            "ref": "Region"
                                        }
                                    ],
```

```
                "assign": "PartitionResult"
            }
        ],
        "rules": [
            {
                "conditions": [
                    {
                        "fn": "booleanEquals",
                        "argv": [
                            {

                    "ref": "UseFIPS"
                            },
                            true
                        ]
                    },
                    {
                        "fn": "booleanEquals",
                        "argv": [
                            {
                                "ref": "UseDualStack"
                            },
                            true
                        ]
                    }

],
                "rules": [
                    {
                        "conditions": [
                            {
                                "fn": "booleanEquals",
                                "argv": [
                                    true,
                                    {
                                        "fn": "getAttr",
                                        "argv": [
                                            {
                                                "ref": "PartitionResult"

            },
                                            "supportsFIPS"
                                        ]
                                    }
                                ]
                            },
                            {
                                "fn": "booleanEquals",
```

```
                "argv": [
                  true,
                  {
                    "fn": "getAttr",
                    "argv": [

                     {
                          "ref": "PartitionResult"
                      },
                      "supportsDualStack"
                    ]
                  }
                ]
              }
            ],
            "rules": [
              {
                "conditions": [],

    "rules": [
                  {
                    "conditions": [],
                    "endpoint": {
                      "url": "https://license-manager-linux-subscriptions-
fips.{Region}.{PartitionResult#dualStackDnsSuffix}",
                      "properties": {},
                      "headers": {}
                    },
                    "type": "endpoint"
                  }
                ],

            "type": "tree"
                  }
                ],
                "type": "tree"
              },
              {
                "conditions": [],
                "error": "FIPS and DualStack are enabled, but this partition does not support
one or both",
                "type": "error"
              }
            ],
            "type": "tree"
          },
          {
```

```
            "conditions": [
                {
                  "fn": "booleanEquals",
                  "argv": [
                    {
                      "ref": "UseFIPS"
                    },
                    true
                  ]
                }
              ],
              "rules": [
                {
                  "conditions": [
                    {

          "fn": "booleanEquals",
                      "argv": [
                        {
                          "fn": "getAttr",
                          "argv": [
                            {
                              "ref": "PartitionResult"
                            },
                            "supportsFIPS"
                          ]
                        },
                        true

                    ]
                    }
                  ],
                  "rules": [
                    {
                      "conditions": [],
                      "rules": [
                        {
                          "conditions": [],
                          "endpoint": {
                            "url": "https://license-manager-linux-subscriptions-
fips.{Region}.{PartitionResult#dnsSuffix}",

    "properties": {},
                            "headers": {}
                          },
                          "type": "endpoint"
                        }
                      ],
```

```
                        "type": "tree"
                    }
                ],
                "type": "tree"
            },
            {
                "conditions": [],
                "error": "FIPS is enabled
but this partition does not support FIPS",
                "type": "error"
            }
        ],
        "type": "tree"
    },
    {
        "conditions": [
            {
                "fn": "booleanEquals",
                "argv": [
                    {
                        "ref": "UseDualStack"
                    },
                    true

]
            }
        ],
        "rules": [
            {
                "conditions": [
                    {
                        "fn": "booleanEquals",
                        "argv": [
                            true,
                            {
                                "fn": "getAttr",
                                "argv": [
                                    {

                                        "ref": "PartitionResult"
                                    },
                                    "supportsDualStack"
                                ]
                            }
                        ]
                    }
                ],
                "rules": [
```

```
                                    {
                                      "conditions": [],
                                      "rules": [

        {
                                            "conditions": [],
                                            "endpoint": {
                                              "url": "https://license-manager-linux-
subscriptions.{Region}.{PartitionResult#dualStackDnsSuffix}",
                                              "properties": {},
                                              "headers": {}
                                            },
                                            "type": "endpoint"
                                          }
                                      ],
                                      "type": "tree"

                    }
                                ],
                                "type": "tree"
                              },
                              {
                                "conditions": [],
                                "error": "DualStack is enabled but this partition does not support DualStack",
                                "type": "error"
                              }
                            ],
                            "type": "tree"
                          },
                          {
                            "conditions": [],
                            "rules": [
                              {
                                "conditions": [],
                                "endpoint": {
                                  "url": "https://license-manager-linux-
subscriptions.{Region}.{PartitionResult#dnsSuffix}",
                                  "properties": {},
                                  "headers": {}
                                },
                                "type": "endpoint"
                              }
                            ],
                            "type": "tree"
                          }
                        ],
                        "type": "tree"
```

```
                    }
                ],
                "type": "tree"
            },
            {
                "conditions": [],
                "error": "Invalid Configuration: Missing Region",
                "type": "error"
            }
        ],
        "type": "tree"
    }
  ]
},
"smithy.rules#endpointTests": {
  "testCases": [
    {
      "documentation": "For region us-east-1 with FIPS enabled and DualStack enabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-linux-subscriptions-fips.us-east-1.api.aws"

  }
      },
      "params": {
        "Region": "us-east-1",
        "UseFIPS": true,
        "UseDualStack": true
      }
    },
    {
      "documentation": "For region us-east-1 with FIPS enabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-linux-subscriptions-fips.us-east-1.amazonaws.com"
        }
      },
      "params": {
        "Region": "us-east-1",
        "UseFIPS": true,
        "UseDualStack": false
      }
    },
    {

   "documentation": "For region us-east-1 with FIPS disabled and DualStack enabled",
      "expect": {
        "endpoint": {
```

```
                "url": "https://license-manager-linux-subscriptions.us-east-1.api.aws"
              }
            },
            "params": {
              "Region": "us-east-1",
              "UseFIPS": false,
              "UseDualStack": true
            }
          },
          {
            "documentation": "For region us-east-1 with FIPS disabled and DualStack disabled",
            "expect": {
              "endpoint": {
                "url": "https://license-manager-linux-subscriptions.us-east-1.amazonaws.com"
              }

        },
            "params": {
              "Region": "us-east-1",
              "UseFIPS": false,
              "UseDualStack": false
            }
          },
          {
            "documentation": "For region cn-north-1 with FIPS enabled and DualStack enabled",
            "expect": {
              "endpoint": {
                "url": "https://license-manager-linux-subscriptions-fips.cn-north-
1.api.amazonwebservices.com.cn"
              }
            },
            "params": {
              "Region": "cn-north-1",
              "UseFIPS": true,
              "UseDualStack": true
            }
          },
          {

  "documentation": "For region cn-north-1 with FIPS enabled and DualStack disabled",
            "expect": {
              "endpoint": {
                "url": "https://license-manager-linux-subscriptions-fips.cn-north-1.amazonaws.com.cn"
              }
            },
            "params": {
              "Region": "cn-north-1",
              "UseFIPS": true,
```

```
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region cn-north-1 with FIPS disabled and DualStack enabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-linux-subscriptions.cn-north-1.api.amazonwebservices.com.cn"
            }
           },
          "params": {
            "Region": "cn-north-1",
            "UseFIPS": false,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region cn-north-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-linux-subscriptions.cn-north-1.amazonaws.com.cn"
            }
          },
          "params": {
            "Region": "cn-north-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {

    "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack enabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-linux-subscriptions-fips.us-gov-east-1.api.aws"
            }
          },
          "params": {
            "Region": "us-gov-east-1",
            "UseFIPS": true,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-linux-subscriptions-fips.us-gov-east-1.amazonaws.com"
```

```
            }

        },
          "params": {
            "Region": "us-gov-east-1",
            "UseFIPS": true,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-gov-east-1 with FIPS disabled and DualStack enabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-linux-subscriptions.us-gov-east-1.api.aws"
            }
          },
          "params": {
            "Region": "us-gov-east-1",
            "UseFIPS": false,
            "UseDualStack": true
          }
        },
        {

"documentation": "For region us-gov-east-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-linux-subscriptions.us-gov-east-1.amazonaws.com"
            }
          },
          "params": {
            "Region": "us-gov-east-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack enabled",
          "expect": {
            "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
          },
          "params": {

      "Region": "us-iso-east-1",
            "UseFIPS": true,
            "UseDualStack": true
          }
        },
```

```
        {
          "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-linux-subscriptions-fips.us-iso-east-1.c2s.ic.gov"
            }
          },
          "params": {
            "Region": "us-iso-east-1",
            "UseFIPS": true,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack
enabled",
          "expect": {
            "error": "DualStack is enabled but this partition does not support DualStack"
          },
          "params": {
            "Region": "us-iso-east-1",
            "UseFIPS": false,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-linux-subscriptions.us-iso-east-1.c2s.ic.gov"
            }
          },
          "params": {
            "Region": "us-iso-east-1",
            "UseFIPS":
false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack enabled",
          "expect": {
            "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
          },
          "params": {
            "Region": "us-isob-east-1",
            "UseFIPS": true,
            "UseDualStack": true
```

```
    }
  },
  {
    "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack disabled",
    "expect": {
      "endpoint": {
        "url": "https://license-manager-linux-subscriptions-fips.us-isob-east-1.sc2s.sgov.gov"
       }
    },
    "params": {
      "Region": "us-isob-east-1",
      "UseFIPS": true,
      "UseDualStack": false
    }
  },
  {
    "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack enabled",
    "expect": {
      "error": "DualStack is enabled but this partition does not support DualStack"
    },
    "params": {
      "Region": "us-isob-east-1",
      "UseFIPS": false,
      "UseDualStack": true
    }
  },
  {

   "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack disabled",
    "expect": {
      "endpoint": {
        "url": "https://license-manager-linux-subscriptions.us-isob-east-1.sc2s.sgov.gov"
      }
    },
    "params": {
      "Region": "us-isob-east-1",
      "UseFIPS": false,
      "UseDualStack": false
    }
  },
  {
    "documentation": "For custom endpoint with region set and fips disabled and dualstack disabled",
    "expect": {
      "endpoint": {
        "url": "https://example.com"
      }
```

```
    },
                "params": {
                  "Region": "us-east-1",
                  "UseFIPS": false,
                  "UseDualStack": false,
                  "Endpoint": "https://example.com"
                }
              },
              {
                "documentation": "For custom endpoint with region not set and fips disabled and dualstack
disabled",
                "expect": {
                  "endpoint": {
                    "url": "https://example.com"
                  }
                },
                "params": {
                  "UseFIPS": false,
                  "UseDualStack": false,
                  "Endpoint": "https://example.com"
                }
              },
              {

                "documentation": "For custom endpoint with fips enabled and dualstack disabled",
                "expect": {
                  "error": "Invalid Configuration: FIPS and custom endpoint are not supported"
                },
                "params": {
                  "Region": "us-east-1",
                  "UseFIPS": true,
                  "UseDualStack": false,
                  "Endpoint": "https://example.com"
                }
              },
              {
                "documentation": "For custom endpoint with fips disabled and dualstack enabled",
                "expect": {
                  "error": "Invalid Configuration: Dualstack and custom endpoint are not supported"
                },
                "params": {

 "Region": "us-east-1",
                  "UseFIPS": false,
                  "UseDualStack": true,
                  "Endpoint": "https://example.com"
                }
              },
```

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                {
                  "documentation": "Missing region",
                  "expect": {
                    "error": "Invalid Configuration: Missing Region"
                  }
                }
              ],
              "version": "1.0"
            }
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscovery": {
          "type": "string",
          "traits": {
            "smithy.api#enum": [
              {
                "name": "Enabled",
                "value": "Enabled",
                "documentation": "Enabled LinuxSubscriptionsDiscovery"

        },
              {
                "name": "Disabled",
                "value": "Disabled",
                "documentation": "Disabled LinuxSubscriptionsDiscovery"
              }
            ]
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscoverySettings": {
          "type": "structure",
          "members": {
            "SourceRegions": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringList",
              "traits": {
                "smithy.api#documentation": "<p>The Regions in which to discover data for Linux
subscriptions.</p>",
                "smithy.api#required": {}
              }
            },
            "OrganizationIntegration": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#OrganizationIntegration",
              "traits": {
                "smithy.api#documentation":
 "<p>Details if you have enabled resource discovery across your accounts in Organizations.</p>",
                "smithy.api#required": {}
              }
            }
```

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        },
        "traits": {
            "smithy.api#documentation": "<p>Lists the settings defined for discovering Linux subscriptions.</p>"
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstances": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstancesRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstancesResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
            },

 {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
            },
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists the running Amazon EC2 instances that were discovered with
commercial Linux\n      subscriptions.</p>",
            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/subscription/ListLinuxSubscriptionInstances"
            },
            "smithy.api#idempotent": {},
            "smithy.api#paginated": {
                "inputToken": "NextToken",
                "outputToken": "NextToken",
                "pageSize": "MaxResults",
                "items": "Instances"
            }
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstancesRequest":
{
        "type": "structure",
        "members": {
            "Filters": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#FilterList",
```

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            "traits": {
                "smithy.api#documentation": "<p>An array of structures that you can use to filter the results by your specified criteria. \n    \tFor example, you can specify <code>Region</code> in the <code>Name</code>, with the \n    \t<code>contains</code> operator to list all subscriptions that match a partial string in the \n \t<code>Value</code>, such as <code>us-west</code>.</p>\n        <p>For each filter, you can specify one of the following values for the <code>Name</code> key \n    \tto streamline results:</p>\n        <ul>\n        <li>\n  <p>\n            <code>AccountID</code>\n          </p>\n        </li>\n        <li>\n          <p>\n    <code>AmiID</code>\n          </p>\n        </li>\n        <li>\n          <p>\n <code>DualSubscription</code>\n          </p>\n        </li>\n        <li>\n          <p>\n <code>InstanceID</code>\n          </p>\n        </li>\n        <li>\n          <p>\n <code>InstanceType</code>\n          </p>\n        </li>\n        <li>\n          <p>\n <code>ProductCode</code>\n          </p>\n        </li>\n        <li>\n          <p>\n <code>Region</code>\n          </p>\n        </li>\n        <li>\n          <p>\n <code>Status</code>\n          </p>\n        </li>\n        <li>\n          <p>\n <code>UsageOperation</code>\n          </p>\n        </li>\n      </ul>\n      <p>For each filter, you can use one of the following <code>Operator</code>\n values to \n  \t\tdefine the behavior of the filter:</p>\n      <ul>\n        <li>\n          <p>\n <code>contains</code>\n          </p>\n        </li>\n        <li>\n          <p>\n <code>equals</code>\n          </p>\n        </li>\n        <li>\n          <p>\n <code>Notequal</code>\n          </p>\n        </li>\n      </ul>"
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#BoxInteger",
            "traits": {
              "smithy.api#documentation": "<p>The maximum items to return in a request.</p>"
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>A token to specify where to
 start paginating. This \n\tis the nextToken from a previously truncated response.</p>",
              "smithy.api#length": {
                "min": 1,
                "max": 16384
              }
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "NextToken length limit is half of ddb accepted limit.\nIncrease this limit if parameters in request increases."
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstancesResponse": {
        "type": "structure",
        "members": {
```

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            "Instances": {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InstanceList",
               "traits": {
                  "smithy.api#documentation": "<p>An array that contains instance objects.</p>"
               }
            },
            "NextToken": {

         "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The next token used for paginated responses. When this \n\tfield isn't empty, there are additional elements that the service hasn't \n\tincluded in this request. Use this token with the next request to retrieve \n\tadditional objects.</p>"
               }
            }
         }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptions": {
         "type": "operation",
         "input": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionsRequest"
         },
         "output": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionsResponse"
         },
         "errors": [
            {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
            },
             {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
            },
            {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Lists the Linux subscriptions that have been discovered. If you have linked your\n      organization, the returned results will include data aggregated across your accounts in\n Organizations.</p>",
            "smithy.api#http": {
               "code": 200,
               "method": "POST",
               "uri": "/subscription/ListLinuxSubscriptions"
            },
            "smithy.api#idempotent": {},
            "smithy.api#paginated": {
               "inputToken": "NextToken",
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            "outputToken": "NextToken",
            "pageSize": "MaxResults",

        "items": "Subscriptions"
          }
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionsRequest": {
        "type": "structure",
        "members": {
          "Filters": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#FilterList",
            "traits": {
              "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those that match one or\n      more sets of key-value pairs that you specify. For example, you can filter by the name of\n      <code>Subscription</code> with an optional operator to see subscriptions that match,\n      partially match, or don't match a certain subscription's name.</p>\n      <p>The valid names for this filter are:</p>\n      <ul>\n      <li>\n      <p>\n      <code>Subscription</code>\n      </p>\n      </li>\n      </ul>\n      <p>The
      valid Operators for this filter are:</p>\n      <ul>\n      <li>\n      <p>\n      <code>contains</code>\n      </p>\n      </li>\n      <li>\n      <p>\n      <code>equals</code>\n      </p>\n      </li>\n      <li>\n      <p>\n      <code>Notequal</code>\n      </p>\n      </li>\n      </ul>"
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#BoxInteger",
            "traits": {
              "smithy.api#documentation": "<p>The maximum items to return in a request.</p>"
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>A token to specify where to start paginating. This \n\tis
      the nextToken from a previously truncated response.</p>",
              "smithy.api#length": {
                "min": 1,
                "max": 16384
              }
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "NextToken length limit is half of ddb accepted limit.\nIncrease this limit if parameters in request increases."
        }
      },
```

```
    "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionsResponse": {
      "type": "structure",
      "members": {
        "Subscriptions": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionList",
          "traits": {
            "smithy.api#documentation": "<p>An array that contains subscription objects.</p>"
          }
        },
        "NextToken": {
          "target": "smithy.api#String",
           "traits": {
            "smithy.api#documentation": "<p>The next token used for paginated responses. When this \n\tfield
isn't empty, there are additional elements that the service hasn't \n\tincluded in this request. Use this token with the
next request to retrieve \n\tadditional objects.</p>"
          }
        }
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ListRegisteredSubscriptionProviders": {
      "type": "operation",
      "input": {
        "target":
"com.amazonaws.licensemanagerlinuxsubscriptions#ListRegisteredSubscriptionProvidersRequest"
      },
      "output": {
        "target":
"com.amazonaws.licensemanagerlinuxsubscriptions#ListRegisteredSubscriptionProvidersResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"

        },
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
        },
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>List Bring Your Own License (BYOL) subscription registration
resources for your account.</p>",
        "smithy.api#http": {
          "code": 200,
          "method": "POST",
          "uri": "/subscription/ListRegisteredSubscriptionProviders"
```

```
            },
            "smithy.api#idempotent": {},
            "smithy.api#paginated": {
               "inputToken": "NextToken",
               "outputToken": "NextToken",
               "pageSize": "MaxResults",
               "items": "RegisteredSubscriptionProviders"
            }
         }

      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#ListRegisteredSubscriptionProvidersRequest": {
         "type": "structure",
         "members": {
            "SubscriptionProviderSources": {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderSourceList",
               "traits": {
                  "smithy.api#documentation": "<p>To filter your results, specify which subscription providers to
return \n\t\t\tin the list.</p>"
               }
            },
            "MaxResults": {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#BoxInteger",
               "traits": {
                  "smithy.api#documentation": "<p>The maximum items to return in a request.</p>",
                  "smithy.api#range": {
                     "min": 1,
                     "max": 100
                  }
               }

   },
            "NextToken": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>A token to specify where to start paginating. This \n\tis the
nextToken from a previously truncated response.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#input": {}
         }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#ListRegisteredSubscriptionProvidersResponse": {
         "type": "structure",
         "members": {
            "RegisteredSubscriptionProviders": {
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```
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#RegisteredSubscriptionProviderList",
            "traits": {
              "smithy.api#documentation": "<p>The list of BYOL registration resources that fit the criteria \n\t\t\tyou specified in the request.</p>"
            }
          },

         "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The next token used for paginated responses. When this \n\tfield isn't empty, there are additional elements that the service hasn't \n\tincluded in this request. Use this token with the next request to retrieve \n\tadditional objects.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#ListTagsForResource": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListTagsForResourceRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListTagsForResourceResponse"
        },
        "errors": [
          {

       "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ResourceNotFoundException"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>List the metadata tags that are assigned to the \n\t\t\tspecified Amazon Web Services resource.</p>",
          "smithy.api#http": {
            "method": "GET",
            "uri": "/tags/{resourceArn}"
          },
          "smithy.api#readonly": {}
```

```
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#ListTagsForResourceRequest": {
        "type": "structure",
        "members": {
          "resourceArn": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn",
             "traits": {
               "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the resource for which to
list metadata tags.</p>",
               "smithy.api#httpLabel": {},
               "smithy.api#required": {}
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#ListTagsForResourceResponse": {
        "type": "structure",
        "members": {
          "tags": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Tags",
            "traits": {
              "smithy.api#documentation": "<p>The metadata tags for the requested resource.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
         }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#Operator": {
        "type": "string",
        "traits": {
          "smithy.api#enum": [
            {
              "name": "EQUAL",
              "value": "Equal",
              "documentation": "Equal operator"
            },
            {
              "name": "NOT_EQUAL",
              "value": "NotEqual",
              "documentation": "Not equal operator"
            },
            {
```

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                "name": "CONTAINS",
                "value": "Contains",
                "documentation": "Contains operator"
              }
            ],
            "smithy.api#length": {
              "min": 1,
              "max": 20
            }
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#OrganizationIntegration":
{
          "type": "string",
          "traits": {
            "smithy.api#enum": [
              {
                "name": "Enabled",
                "value": "Enabled",
                "documentation": "Enabled OrganizationIntegration"
              },
              {
                "name": "Disabled",
                "value": "Disabled",
                "documentation": "Disabled OrganizationIntegration"
              }
            ]
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#ProductCodeList": {
          "type": "list",
          "member": {
            "target": "smithy.api#String"
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#RegisterSubscriptionProvider": {
          "type": "operation",
          "input": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#RegisterSubscriptionProviderRequest"
           },
          "output": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#RegisterSubscriptionProviderResponse"
          },
          "errors": [
            {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
            },
            {
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            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Register the supported third-party subscription provider for your Bring
Your Own License (BYOL) subscription.</p>",
          "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/subscription/RegisterSubscriptionProvider"

          },
          "smithy.api#idempotent": {}
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#RegisterSubscriptionProviderRequest": {
        "type": "structure",
        "members": {
          "SubscriptionProviderSource": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderSource",
            "traits": {
              "smithy.api#documentation": "<p>The supported Linux subscription provider to register.</p>",
              "smithy.api#required": {}
            }
          },
          "SecretArn": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SecretArn",
            "traits": {
              "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the secret where you've
stored your subscription provider's access token. For \n\t\t\tRHEL subscriptions managed through the
 Red Hat Subscription Manager (RHSM), the secret contains \n\t\t\tyour Red Hat Offline token.</p>",
              "smithy.api#required": {}
            }
          },
          "Tags": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Tags",
            "traits": {
              "smithy.api#documentation": "<p>The metadata tags to assign to your registered Linux subscription
provider \n\t\t\tresource.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
```

```
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#RegisterSubscriptionProviderResponse": {
      "type": "structure",
      "members": {
        "SubscriptionProviderSource": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderSource",
          "traits": {
            "smithy.api#documentation":
"<p>The Linux subscription provider that you registered.</p>"
          }
        },
        "SubscriptionProviderArn": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the Linux subscription
provider resource that you registered.</p>"
          }
        },
        "SubscriptionProviderStatus": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderStatus",
          "traits": {
            "smithy.api#documentation": "<p>Indicates the status of the registration action for the Linux
subscription provider \n\t\t\tthat you requested.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#RegisteredSubscriptionProvider":
{
      "type": "structure",
      "members": {
        "SubscriptionProviderArn": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn",
          "traits": {
            "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the Linux subscription
provider resource that you registered.</p>"
          }
        },
        "SubscriptionProviderSource": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderSource",
          "traits": {
            "smithy.api#documentation": "<p>A supported third-party Linux subscription provider. License
Manager currently supports \n\t\t\tRed Hat subscriptions.</p>"
          }
        },
```

```
            "SecretArn": {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SecretArn",
                "traits": {
                  "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the Secrets Manager secret that stores your registered Linux subscription provider \n\t\t\taccess token. For RHEL account subscriptions, this is the offline token.</p>"
               }
            },
            "SubscriptionProviderStatus": {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderStatus",
               "traits": {
                  "smithy.api#documentation": "<p>Indicates the status of your registered Linux subscription provider access token \n\t\t\tfrom the last time License Manager retrieved subscription data. For RHEL account subscriptions, \n\t\t\tthis is the status of the offline token.</p>"
               }
            },
            "SubscriptionProviderStatusMessage": {
               "target": "smithy.api#String",
               "traits":
{
                  "smithy.api#documentation": "<p>A detailed message that's associated with your BYOL subscription \n\t\t\tprovider token status.</p>"
               }
            },
            "LastSuccessfulDataRetrievalTime": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The timestamp from the last time that License Manager accessed third-party subscription data \n\t\t\tfor your account from your registered Linux subscription provider.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#documentation": "<p>A third-party provider for operating system (OS) platform software and license \n\t\t\tsubscriptions, such as Red Hat. When you register a third-party Linux subscription \n\t\t\tprovider, License Manager can get subscription data from the registered provider.</p>"
         }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#RegisteredSubscriptionProviderList":
{
         "type": "list",
         "member": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#RegisteredSubscriptionProvider"
         }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#ResourceNotFoundException": {
         "type": "structure",
         "members": {
```

```
            "message": {
                "target": "smithy.api#String"
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>Unable to find the requested Amazon Web Services resource.</p>",
            "smithy.api#error": "client"
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#SecretArn": {
        "type": "string",
        "traits": {
            "smithy.api#pattern": "^arn:[a-z0-9-\\.]{1,63}:secretsmanager:[a-z0-9-\\.]{0,63}:[a-z0-9-
\\.]{0,63}:secret:[^/]{1,1023}$"

  }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#Status": {
        "type": "string",
        "traits": {
            "smithy.api#enum": [
                {
                    "name": "InProgress",
                    "value": "InProgress",
                    "documentation": "InProgress status"
                },
                {
                    "name": "Completed",
                    "value": "Completed",
                    "documentation": "Completed status"
                },
                {
                    "name": "Successful",
                    "value": "Successful",
                    "documentation": "Successful status"
                },
                {
                    "name": "Failed",
                    "value": "Failed",
                    "documentation": "Failed status"
                }
            ]
        }
    },

   "com.amazonaws.licensemanagerlinuxsubscriptions#StringList": {
        "type": "list",
        "member": {
```

```
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#length": {
                "min": 1,
                "max": 100
              }
            }
          },
          "traits": {
            "smithy.api#length": {
              "min": 1,
              "max": 100
            },
            "smithy.api#uniqueItems": {}
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#StringMap": {
          "type": "map",
          "key": {
            "target": "smithy.api#String"
          },
          "value": {
            "target": "smithy.api#String"
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#Subscription": {
          "type": "structure",
          "members": {
            "Name":
{
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The name of the subscription.</p>"
              }
            },
            "Type": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The type of subscription. The type can be subscription-included
with Amazon EC2, Bring Your Own\n      Subscription model (BYOS), or from the Amazon Web Services
Marketplace. Certain subscriptions may use licensing from the\n      Amazon Web Services Marketplace as well as
OS licensing from Amazon EC2 or BYOS.</p>"
              }
            },
            "InstanceCount": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#BoxLong",
              "traits": {
                "smithy.api#documentation": "<p>The total amount of running instances using this
```

```
subscription.</p>"
                }
              }
            },
            "traits": {
              "smithy.api#documentation": "<p>An object which details a discovered Linux subscription.</p>"
            }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionList": {
            "type": "list",
            "member": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Subscription"
            }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn": {
            "type": "string",
            "traits": {
              "smithy.api#pattern": "^arn:[a-z0-9-\\.]{1,63}:[a-z0-9-\\.]{1,63}:[a-z0-9-\\.]{1,63}:[a-z0-9-\\.]{1,63}:[a-z0-
9-\\.]{1,510}/[a-z0-9-\\.]{1,510}$"
            }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderSource": {
            "type": "string",
            "traits": {
              "smithy.api#enum": [

 {
                    "name": "RedHat",
                    "value": "RedHat",
                    "documentation": "RedHat subscription provider namespace"
                }
              ]
            }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderSourceList": {
            "type": "list",
            "member": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderSource"
            }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderStatus": {
            "type": "string",
            "traits": {
              "smithy.api#enum": [
                {
                  "name": "ACTIVE",
                  "value": "ACTIVE",
                  "documentation": "ACTIVE status"
```

```
            },
            {
               "name": "INVALID",
               "value": "INVALID",

"documentation": "INVALID status"
            },
            {
               "name": "PENDING",
               "value": "PENDING",
               "documentation": "PENDING status"
            }
         ]
      }
   },
   "com.amazonaws.licensemanagerlinuxsubscriptions#TagKeyList": {
      "type": "list",
      "member": {
         "target": "smithy.api#String"
      },
      "traits": {
         "smithy.api#length": {
            "min": 0,
            "max": 50
         },
         "smithy.api#sensitive": {}
      }
   },
   "com.amazonaws.licensemanagerlinuxsubscriptions#TagResource": {
      "type": "operation",
      "input": {
         "target": "com.amazonaws.licensemanagerlinuxsubscriptions#TagResourceRequest"
      },
      "output": {
         "target": "com.amazonaws.licensemanagerlinuxsubscriptions#TagResourceResponse"
       },
      "errors": [
         {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
         },
         {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ResourceNotFoundException"
         },
         {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
         }
      ],
      "traits": {
```

```
            "smithy.api#documentation": "<p>Add metadata tags to the specified Amazon Web Services
resource.</p>",
            "smithy.api#http": {
               "method": "PUT",
               "uri": "/tags/{resourceArn}"
            },
            "smithy.api#idempotent": {}
         }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#TagResourceRequest": {
         "type": "structure",
         "members":
{
            "resourceArn": {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn",
               "traits": {
                  "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the Amazon Web Services
resource to which to add the specified \n\t\t\tmetadata tags.</p>",
                  "smithy.api#httpLabel": {},
                  "smithy.api#required": {}
               }
            },
            "tags": {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Tags",
               "traits": {
                  "smithy.api#documentation": "<p>The metadata tags to assign to the Amazon Web Services resource.
Tags are \n\t\t\tformatted as key value pairs.</p>",
                  "smithy.api#required": {}
               }
            }
         },
         "traits": {
            "smithy.api#input": {}
         }

      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#TagResourceResponse": {
         "type": "structure",
         "members": {},
         "traits": {
            "smithy.api#output": {}
         }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#Tags": {
         "type": "map",
         "key": {
            "target": "smithy.api#String"
         },
```

```
        "value": {
            "target": "smithy.api#String"
        },
        "traits": {
            "smithy.api#length": {
                "min": 0,
                "max": 50
            },
            "smithy.api#sensitive": {}
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException": {
        "type": "structure",
        "members": {
            "message": {
                "target": "smithy.api#String"
            }
        },
        "traits": {
            "smithy.api#documentation":
 "<p>The request was denied due to request throttling.</p>",
            "smithy.api#error": "client"
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#UntagResource": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UntagResourceRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UntagResourceResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
            },
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ResourceNotFoundException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Remove one or more metadata tag from the specified Amazon Web
Services resource.</p>",
             "smithy.api#http": {
                "method": "DELETE",
                "uri": "/tags/{resourceArn}"
            },
            "smithy.api#idempotent": {}
```

```
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#UntagResourceRequest": {
        "type": "structure",
        "members": {
          "resourceArn": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn",
            "traits": {
              "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the Amazon Web Services
resource to remove the metadata tags from.</p>",
              "smithy.api#httpLabel": {},
              "smithy.api#required": {}
            }
          },
          "tagKeys": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#TagKeyList",
            "traits": {

           "smithy.api#documentation": "<p>A list of metadata tag keys to remove from the requested
\n\t\t\tresource.</p>",
              "smithy.api#httpQuery": "tagKeys",
              "smithy.api#required": {}
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#UntagResourceResponse": {
        "type": "structure",
        "members": {},
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettings": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettingsRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettingsResponse"

       },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
```

```
            },
            {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
            },
            {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Updates the service settings for Linux subscriptions.</p>",
            "smithy.api#http": {
               "code": 200,
               "method": "POST",
               "uri": "/subscription/UpdateServiceSettings"
            },
            "smithy.api#idempotent": {}
         }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettingsRequest": {
         "type": "structure",
         "members": {
            "LinuxSubscriptionsDiscovery": {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscovery",
               "traits": {
                  "smithy.api#documentation": "<p>Describes if the discovery of Linux subscriptions is enabled.</p>",
                  "smithy.api#required": {}
               }
            },
            "LinuxSubscriptionsDiscoverySettings": {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscoverySettings",
               "traits": {
                  "smithy.api#documentation": "<p>The settings defined for Linux subscriptions discovery. The
settings include if Organizations\n      integration has been enabled, and which Regions data will be aggregated
from.</p>",
                  "smithy.api#required": {}
               }
            },
            "AllowUpdate": {
               "target":
 "smithy.api#Boolean",
               "traits": {
                  "smithy.api#documentation": "<p>Describes if updates are allowed to the service settings for Linux
subscriptions. If you\n      allow updates, you can aggregate Linux subscription data in more than one home
Region.</p>"
               }
            }
         }
      },
```

```
    "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettingsResponse": {
      "type": "structure",
      "members": {
        "LinuxSubscriptionsDiscovery": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscovery",
          "traits": {
            "smithy.api#documentation": "<p>Lists if discovery has been enabled for Linux subscriptions.</p>"
          }
        },
        "LinuxSubscriptionsDiscoverySettings": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscoverySettings",
           "traits": {
            "smithy.api#documentation": "<p>The settings defined for Linux subscriptions discovery. The
settings include if Organizations\n      integration has been enabled, and which Regions data will be aggregated
from.</p>"
          }
        },
        "Status": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Status",
          "traits": {
            "smithy.api#documentation": "<p>Indicates the status of Linux subscriptions settings being
applied.</p>"
          }
        },
        "StatusMessage": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringMap",
          "traits": {
            "smithy.api#documentation": "<p>A message which details the Linux subscriptions service settings
current status.</p>"
          }

     },
        "HomeRegions": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringList",
          "traits": {
            "smithy.api#documentation": "<p>The Region in which License Manager displays the aggregated
data for Linux\n      subscriptions.</p>"
          }
        }
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException": {
      "type": "structure",
      "members": {
        "message": {
          "target": "smithy.api#String"
        }
      },
```

```
            "traits": {
                "smithy.api#documentation": "<p>The provided input is not valid. Try your request again.</p>",
                "smithy.api#error": "client"
            }
        }
    }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Deletes the specified license.
func (c *Client) DeleteLicense(ctx context.Context, params *DeleteLicenseInput, optFns ...func(*Options))
(*DeleteLicenseOutput, error) {
 if params == nil {
  params = &DeleteLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "DeleteLicense", params, optFns,
c.addOperationDeleteLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*DeleteLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type DeleteLicenseInput struct {

 // Amazon Resource Name (ARN) of the license.
 //
 // This member is required.
 LicenseArn *string

 // Current version of the license.
 //
 // This member is required.
```

```
 SourceVersion
 *string

 noSmithyDocumentSerde
}

type DeleteLicenseOutput struct {

 // Date when the license is deleted.
 DeletionDate *string

 // License status.
 Status types.LicenseDeletionStatus

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationDeleteLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpDeleteLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpDeleteLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "DeleteLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err !=
 nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
```

```
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil
 {
  return err
 }
 if err = addUserAgentRetryMode(stack, options); err != nil {
  return err
 }
 if err = addOpDeleteLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opDeleteLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
```

```
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opDeleteLicense(region string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName: "DeleteLicense",
 }
}
DeleteLicense
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
  OperationInputValidation
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
 Build stack step
  ClientRequestID
  ComputeContentLength
  UserAgent
  AddTimeOffsetMiddleware
  RecursionDetection
 Finalize stack step
  ResolveAuthScheme
  GetIdentity
  ResolveEndpointV2
  disableHTTPS
  ComputePayloadHash
  Retry
  RetryMetricsHeader
  setLegacyContextSigningOptions
  Signing
 Deserialize stack step
  AddRawResponseToMetadata
  ErrorCloseResponseBody
```

```
  CloseResponseBody
  ResponseErrorWrapper
  RequestIDRetriever
  OperationDeserializer
  AddTimeOffsetMiddleware
  RecordResponseTiming
  RequestResponseLogger
GetLicense
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
  OperationInputValidation
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
 Build stack step
  ClientRequestID
  ComputeContentLength
  UserAgent
  AddTimeOffsetMiddleware
  RecursionDetection
 Finalize stack step
  ResolveAuthScheme
  GetIdentity
  ResolveEndpointV2
  disableHTTPS
  ComputePayloadHash
  Retry
  RetryMetricsHeader
  setLegacyContextSigningOptions
  Signing
 Deserialize stack step
  AddRawResponseToMetadata
  ErrorCloseResponseBody
  CloseResponseBody
  ResponseErrorWrapper
  RequestIDRetriever
  OperationDeserializer
  AddTimeOffsetMiddleware
  RecordResponseTiming
  RequestResponseLogger
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
```

```
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Checks out the specified license for offline use.
func (c *Client) CheckoutBorrowLicense(ctx context.Context, params *CheckoutBorrowLicenseInput, optFns
...func(*Options)) (*CheckoutBorrowLicenseOutput, error) {
 if params == nil {
  params = &CheckoutBorrowLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "CheckoutBorrowLicense", params, optFns,
c.addOperationCheckoutBorrowLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*CheckoutBorrowLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type CheckoutBorrowLicenseInput struct {

 // Unique, case-sensitive identifier that you provide to ensure the idempotency of
 //
 the request.
 //
 // This member is required.
 ClientToken *string

 // Digital signature method. The possible value is JSON Web Signature (JWS)
 // algorithm PS384. For more information, see [RFC 7518 Digital Signature with RSASSA-PSS].
 //
 // [RFC 7518 Digital Signature with RSASSA-PSS]: https://tools.ietf.org/html/rfc7518#section-3.5
 //
 // This member is required.
 DigitalSignatureMethod types.DigitalSignatureMethod

 // License entitlements. Partial checkouts are not supported.
 //
 // This member is required.
 Entitlements []types.EntitlementData
```

```
 // Amazon Resource Name (ARN) of the license. The license must use the borrow
 // consumption configuration.
 //
 // This member is required.
 LicenseArn *string

 // Information about constraints.
 CheckoutMetadata []types.Metadata

 // Node ID.
 NodeId *string

 noSmithyDocumentSerde
}

type CheckoutBorrowLicenseOutput struct {

 // Information about constraints.
 CheckoutMetadata []types.Metadata

 // Allowed license entitlements.
 EntitlementsAllowed
 []types.EntitlementData

 // Date and time at which the license checkout expires.
 Expiration *string

 // Date and time at which the license checkout is issued.
 IssuedAt *string

 // Amazon Resource Name (ARN) of the license.
 LicenseArn *string

 // License consumption token.
 LicenseConsumptionToken *string

 // Node ID.
 NodeId *string

 // Signed token.
 SignedToken *string

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}
```

```
func (c *Client) addOperationCheckoutBorrowLicenseMiddlewares(stack *middleware.Stack, options Options) (err
error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpCheckoutBorrowLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpCheckoutBorrowLicense{}, middleware.After)
 if err != nil {
  return
 err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "CheckoutBorrowLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
```

```
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return
 err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
  return err
 }
 if err = addUserAgentRetryMode(stack, options); err != nil {
  return err
 }
 if err = addOpCheckoutBorrowLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opCheckoutBorrowLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opCheckoutBorrowLicense(region
 string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName: "CheckoutBorrowLicense",
 }
```

```
}
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// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Checks in the specified license. Check in a license when it is no longer in use.
func (c *Client) CheckInLicense(ctx context.Context, params *CheckInLicenseInput, optFns ...func(*Options))
(*CheckInLicenseOutput, error) {
 if params == nil {
  params = &CheckInLicenseInput{}
 }
```

```
 result, metadata, err := c.invokeOperation(ctx, "CheckInLicense", params, optFns,
c.addOperationCheckInLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*CheckInLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type CheckInLicenseInput struct {

 // License consumption token.
 //
 // This member is required.
 LicenseConsumptionToken *string

 // License beneficiary.
 Beneficiary *string

 noSmithyDocumentSerde
}

type
 CheckInLicenseOutput struct {
 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationCheckInLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpCheckInLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpCheckInLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "CheckInLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }
```

```
if err = addlegacyEndpointContextSetter(stack, options); err != nil {
 return err
}
if err = addSetLoggerMiddleware(stack, options); err != nil {
 return err
}
if err = addClientRequestID(stack); err != nil {
 return err
}
if
err = addComputeContentLength(stack); err != nil {
 return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
 return err
}
if err = addComputePayloadSHA256(stack); err != nil {
 return err
}
if err = addRetry(stack, options); err != nil {
 return err
}
if err = addRawResponseToMetadata(stack); err != nil {
 return err
}
if err = addRecordResponseTiming(stack); err != nil {
 return err
}
if err = addClientUserAgent(stack, options); err != nil {
 return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
 return err
}
if err = addTimeOffsetBuild(stack, c); err != nil {
 return err
}
if err = addUserAgentRetryMode(stack, options); err != nil {
 return err
}
if err = addOpCheckInLicenseValidationMiddleware(stack); err != nil
```

```
 {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opCheckInLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opCheckInLicense(region string) *awsmiddleware.RegisterServiceMetadata
{
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:    ServiceID,
  OperationName: "CheckInLicense",
 }
}
```

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package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Lists the licenses for your account.
func (c *Client) ListLicenses(ctx context.Context, params *ListLicensesInput, optFns ...func(*Options))
(*ListLicensesOutput, error) {
 if params == nil {
  params = &ListLicensesInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "ListLicenses", params, optFns,
c.addOperationListLicensesMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*ListLicensesOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type ListLicensesInput struct {

 // Filters to scope the results. The following filters are supported:
 //
 //   - Beneficiary
 //
 //   - ProductSKU
 //
 //   - Fingerprint
 //
 //   - Status
 Filters
 []types.Filter
```

```
 // Amazon Resource Names (ARNs) of the licenses.
 LicenseArns []string

 // Maximum number of results to return in a single call.
 MaxResults *int32

 // Token for the next set of results.
 NextToken *string

 noSmithyDocumentSerde
}

type ListLicensesOutput struct {

 // License details.
 Licenses []types.License

 // Token for the next set of results.
 NextToken *string

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationListLicensesMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpListLicenses{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpListLicenses{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack,
 options, "ListLicenses"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
```

```
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack);
 err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
  return err
 }
 if err = addUserAgentRetryMode(stack, options); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opListLicenses(options.Region), middleware.Before);
err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
```

```
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opListLicenses(region string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:
    ServiceID,
  OperationName: "ListLicenses",
 }
}
CheckInLicense
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
  OperationInputValidation
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
 Build stack step
  ClientRequestID
  ComputeContentLength
  UserAgent
  AddTimeOffsetMiddleware
  RecursionDetection
 Finalize stack step
  ResolveAuthScheme
  GetIdentity
  ResolveEndpointV2
  disableHTTPS
  ComputePayloadHash
  Retry
  RetryMetricsHeader
  setLegacyContextSigningOptions
```

Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
AddTimeOffsetMiddleware
RecordResponseTiming
RequestResponseLogger


```
{
  "smithy": "2.0",
  "shapes": {
    "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException": {
      "type": "structure",
      "members": {
        "message": {
          "target": "smithy.api#String"
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>You don't have sufficient access to perform this action.</p>",
        "smithy.api#error": "client"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ActiveDirectoryIdentityProvider": {
      "type": "structure",
      "members": {
        "DirectoryId": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The directory ID for an Active Directory identity provider.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#documentation":
"<p>Details about an Active Directory identity provider.</p>"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#AssociateUser": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#AssociateUserRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#AssociateUserResponse"
```

```
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
           },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Associates the user to an EC2 instance to utilize user-based
subscriptions.</p>\n        <note>\n            <p>Your estimated bill for charges on the number of users and related
costs will take 48\n        hours to appear for billing periods that haven't closed (marked as <b>Pending</b> billing
status) in Amazon Web Services Billing. For more information, see <a
href=\"https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/invoice.html\">Viewing your\n
        monthly charges</a> in the <i>Amazon Web Services Billing User Guide</i>.</p>\n        </note>",
          "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/user/AssociateUser"
          },
          "smithy.api#idempotent": {}
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#AssociateUserRequest": {
        "type": "structure",
        "members": {
          "Username": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The user name from the identity provider for the user.</p>",
              "smithy.api#required": {}
            }
```

```
        },
        "InstanceId": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The ID of the
EC2 instance, which provides user-based subscriptions.</p>",
            "smithy.api#required": {}
          }
        },
        "IdentityProvider": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
          "traits": {
            "smithy.api#documentation": "<p>The identity provider of the user.</p>",
            "smithy.api#required": {}
          }
        },
        "Domain": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The domain name of the user.</p>"
          }
        }
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#AssociateUserResponse": {
      "type": "structure",
      "members": {
        "InstanceUserSummary": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummary",
           "traits": {
            "smithy.api#documentation": "<p>Metadata that describes the associate user operation.</p>",
            "smithy.api#required": {}
          }
        }
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#BoxInteger": {
      "type": "integer"
    },
    "com.amazonaws.licensemanagerusersubscriptions#ConflictException": {
      "type": "structure",
      "members": {
        "message": {
          "target": "smithy.api#String"
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>The request couldn't be completed because it conflicted with the current
```

```
state of the\n      resource.</p>",
            "smithy.api#error": "server"
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProvider":
 {
          "type": "operation",
          "input": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProviderRequest"
          },
          "output": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProviderResponse"
          },
          "errors": [
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
             },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Deregisters the identity provider from providing user-based
subscriptions.</p>",
            "smithy.api#http": {
              "code": 200,
              "method": "POST",
              "uri": "/identity-provider/DeregisterIdentityProvider"
            },
            "smithy.api#idempotent": {}
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProviderRequest": {
```

```
      "type": "structure",
      "members": {
        "IdentityProvider": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
           "traits": {
            "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
            "smithy.api#required": {}
          }
        },
        "Product": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
            "smithy.api#required": {}
          }
        }
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProviderResponse": {
      "type": "structure",
      "members": {
        "IdentityProviderSummary": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary",
          "traits": {
            "smithy.api#documentation":
"<p>Metadata that describes the results of an identity provider operation.</p>",
            "smithy.api#required": {}
          }
        }
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#DisassociateUser": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#DisassociateUserRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#DisassociateUserResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
```

```
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Disassociates the user from an EC2 instance providing user-based
subscriptions.</p>",
            "smithy.api#http": {
              "code": 200,
              "method": "POST",
              "uri": "/user/DisassociateUser"
            },
            "smithy.api#idempotent": {}
          }

        },
        "com.amazonaws.licensemanagerusersubscriptions#DisassociateUserRequest": {
          "type": "structure",
          "members": {
            "Username": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The user name from the identity provider for the user.</p>",
                "smithy.api#required": {}
              }
            },
            "InstanceId": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The ID of the EC2 instance, which provides user-based
subscriptions.</p>",
                "smithy.api#required": {}
              }
            },
            "IdentityProvider": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
              "traits": {
                "smithy.api#documentation":
```

```
"<p>An object that specifies details for the identity provider.</p>",
                "smithy.api#required": {}
            }
        },
        "Domain": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The domain name of the user.</p>"
            }
        }
    }
},
"com.amazonaws.licensemanagerusersubscriptions#DisassociateUserResponse": {
    "type": "structure",
    "members": {
        "InstanceUserSummary": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummary",
            "traits": {
                "smithy.api#documentation": "<p>Metadata that describes the associate user operation.</p>",
                "smithy.api#required": {}
            }
        }
    }
},

"com.amazonaws.licensemanagerusersubscriptions#Filter": {
    "type": "structure",
    "members": {
        "Attribute": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The name of an attribute to use as a filter.</p>"
            }
        },
        "Operation": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The type of search (For example, eq, geq, leq)</p>"
            }
        },
        "Value": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>Value of the filter.</p>"
            }
        }
    },
    "traits": {
```

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            "smithy.api#documentation": "<p>A filter name and value pair that is used
 to return more specific results from a describe\n      operation. Filters can be used to match a set of resources by
specific criteria, such as tags,\n      attributes, or IDs.</p>"
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#FilterList": {
          "type": "list",
          "member": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#Filter"
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider": {
          "type": "union",
          "members": {
            "ActiveDirectoryIdentityProvider": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ActiveDirectoryIdentityProvider",
              "traits": {
                "smithy.api#documentation": "<p>An object that details an Active Directory identity provider.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#documentation":
 "<p>Details about an identity provider.</p>"
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary": {
          "type": "structure",
          "members": {
            "IdentityProvider": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
              "traits": {
                "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
                "smithy.api#required": {}
              }
            },
            "Settings": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#Settings",
              "traits": {
                "smithy.api#documentation": "<p>An object that details the registered identity providers product
related configuration\n      settings such as the subnets to provision VPC endpoints.</p>",
                "smithy.api#required":
 {}
              }
            },
            "Product": {
              "target": "smithy.api#String",
              "traits": {
```

```
                "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
                "smithy.api#required": {}
              }
            },
            "Status": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The status of an identity provider.</p>",
                "smithy.api#required": {}
              }
            },
            "FailureMessage": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The failure message associated with an identity provider.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#documentation":
 "<p>Describes an identity provider.</p>"
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummaryList": {
          "type": "list",
          "member": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary"
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#InstanceSummary": {
          "type": "structure",
          "members": {
            "InstanceId": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The ID of the EC2 instance, which provides user-based
subscriptions.</p>",
                "smithy.api#required": {}
              }
            },
            "Status": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The status
 of an EC2 instance resource.</p>",
                "smithy.api#required": {}
              }
            },
```

```
            "Products": {
               "target": "com.amazonaws.licensemanagerusersubscriptions#StringList",
               "traits": {
                  "smithy.api#documentation": "<p>A list of provided user-based subscription products.</p>",
                  "smithy.api#required": {}
               }
            },
            "LastStatusCheckDate": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The date of the last status check.</p>"
               }
            },
            "StatusMessage": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The status message for an EC2 instance.</p>"
               }

      }
         },
         "traits": {
            "smithy.api#documentation": "<p>Describes an EC2 instance providing user-based subscriptions.</p>"
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#InstanceSummaryList": {
         "type": "list",
         "member": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceSummary"
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummary": {
         "type": "structure",
         "members": {
            "Username": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The user name from the identity provider for the user.</p>",
                  "smithy.api#required": {}
               }
            },
            "InstanceId": {
               "target": "smithy.api#String",
               "traits":
 {
                  "smithy.api#documentation": "<p>The ID of the EC2 instance, which provides user-based
subscriptions.</p>",
                  "smithy.api#required": {}
```

```
            }
          },
          "IdentityProvider": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
            "traits": {
              "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
              "smithy.api#required": {}
            }
          },
          "Status": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The status of a user associated with an EC2 instance.</p>",
              "smithy.api#required": {}
            }
          },
          "StatusMessage": {
            "target": "smithy.api#String",
             "traits": {
              "smithy.api#documentation": "<p>The status message for users of an EC2 instance.</p>"
            }
          },
          "Domain": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The domain name of the user.</p>"
            }
          },
          "AssociationDate": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The date a user was associated with an EC2 instance.</p>"
            }
          },
          "DisassociationDate": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The date a user was disassociated from an EC2 instance.</p>"
            }
          }

    },
        "traits": {
          "smithy.api#documentation": "<p>Describes users of an EC2 instance providing user-based
subscriptions.</p>"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummaryList": {
```

```
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummary"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#InternalServerException": {
      "type": "structure",
      "members": {
        "message": {
          "target": "smithy.api#String"
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>An exception occurred with the service.</p>",
        "smithy.api#error": "server"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#LicenseManagerUserSubscriptions": {
      "type": "service",

     "version": "2018-05-10",
      "operations": [
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#AssociateUser"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProvider"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#DisassociateUser"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProviders"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListInstances"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptions"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociations"

},
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProvider"
        },
        {
```

```
            "target": "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscription"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscription"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettings"
          }
        ],
        "traits": {
          "aws.api#service": {
            "sdkId": "License Manager User Subscriptions",
            "arnNamespace": "license-manager-user-subscriptions",
            "cloudTrailEventSource": "license-manager-user-subscriptions.amazonaws.com"
          },
          "aws.auth#sigv4": {
            "name": "license-manager-user-subscriptions"
           },
          "aws.protocols#restJson1": {},
          "smithy.api#cors": {
            "additionalAllowedHeaders": [
              "*",
              "content-type",
              "x-amz-content-sha256",
              "x-amz-user-agent",
              "x-amzn-platform-id",
              "x-amzn-trace-id",
              "content-length",
              "x-api-key",
              "authorization",
              "x-amz-date",
              "x-amz-security-token",
              "Access-Control-Allow-Headers",
              "Access-Control-Allow-Methods",
              "Access-Control-Allow-Origin"
            ],
            "additionalExposedHeaders": [
              "x-amzn-errortype",
              "x-amzn-requestid",
              "x-amzn-trace-id"

]
          },
          "smithy.api#documentation": "<p>With License Manager, you can create user-based subscriptions to utilize licensed software with\n       a per user subscription fee on Amazon EC2 instances.</p>",
          "smithy.api#title": "AWS License Manager User Subscriptions",
          "smithy.rules#endpointRuleSet": {
            "version": "1.0",
```

```
        "parameters": {
          "Region": {
            "builtIn": "AWS::Region",
            "required": false,
            "documentation": "The AWS region used to dispatch the request.",
            "type": "String"
          },
          "UseDualStack": {
            "builtIn": "AWS::UseDualStack",
            "required": true,
            "default": false,
            "documentation": "When true, use the dual-stack
endpoint. If the configured endpoint does not support dual-stack, dispatching the request MAY return an error.",
            "type": "Boolean"
          },
          "UseFIPS": {
            "builtIn": "AWS::UseFIPS",
            "required": true,
            "default": false,
            "documentation": "When true, send this request to the FIPS-compliant regional endpoint. If the
configured endpoint does not have a FIPS compliant endpoint, dispatching the request will return an error.",
            "type": "Boolean"
          },
          "Endpoint": {
            "builtIn": "SDK::Endpoint",
            "required": false,
            "documentation": "Override the endpoint used to send this request",
            "type": "String"
          }

      },
        "rules": [
          {
            "conditions": [
              {
                "fn": "isSet",
                "argv": [
                  {
                    "ref": "Endpoint"
                  }
                ]
              }
            ],
            "type": "tree",
            "rules": [
              {
                "conditions": [
                  {
```

```
                "fn": "booleanEquals",
                "argv": [
                  {
                    "ref": "UseFIPS"
                  },

                true
                ]
              }
            ],
            "error": "Invalid Configuration: FIPS and custom endpoint are not supported",
            "type": "error"
          },
          {
            "conditions": [
              {
                "fn": "booleanEquals",
                "argv": [
                  {
                    "ref": "UseDualStack"
                  },
                  true
                ]
              }
            ],

"error": "Invalid Configuration: Dualstack and custom endpoint are not supported",
            "type": "error"
          },
          {
            "conditions": [],
            "endpoint": {
              "url": {
                "ref": "Endpoint"
              },
              "properties": {},
              "headers": {}
            },
            "type": "endpoint"
          }
        ]
      },
      {
        "conditions": [
          {
            "fn": "isSet",
            "argv": [
```

```
    {
                    "ref": "Region"
                }
            ]
        }
    ],
    "type": "tree",
    "rules": [
        {
            "conditions": [
                {
                    "fn": "aws.partition",
                    "argv": [
                        {
                            "ref": "Region"
                        }
                    ],
                    "assign": "PartitionResult"
                }
            ],
            "type": "tree",

"rules": [
                {
                    "conditions": [
                        {
                            "fn": "booleanEquals",
                            "argv": [
                                {
                                    "ref": "UseFIPS"
                                },
                                true
                            ]
                        },
                        {
                            "fn": "booleanEquals",
                            "argv": [
                                {
                                    "ref": "UseDualStack"

                                },
                                true
                            ]
                        }
                    ],
                    "type": "tree",
                    "rules": [
                        {
```

```
                "conditions": [
                  {
                    "fn": "booleanEquals",
                    "argv": [
                      true,
                      {
                        "fn": "getAttr",

 "argv": [
                          {
                            "ref": "PartitionResult"
                          },
                          "supportsFIPS"
                        ]
                      }
                    ]
                  },
                  {
                    "fn": "booleanEquals",
                    "argv": [
                      true,
                      {

              "fn": "getAttr",
                          "argv": [
                            {
                              "ref": "PartitionResult"
                            },
                            "supportsDualStack"
                          ]
                        }
                      ]
                    }
                ],
                "type": "tree",
                "rules": [
                  {

            "conditions": [],
                        "endpoint": {
                          "url": "https://license-manager-user-subscriptions-
fips.{Region}.{PartitionResult#dualStackDnsSuffix}",
                          "properties": {},
                          "headers": {}
                        },
                        "type": "endpoint"
                      }
                    ]
```

```
                    },
                    {
                        "conditions": [],
                        "error": "FIPS and DualStack are enabled, but this partition does not support one or
both",
                         "type": "error"
                    }
                ]
            },
            {
                "conditions": [
                    {
                        "fn": "booleanEquals",
                        "argv": [
                            {
                                "ref": "UseFIPS"
                            },
                            true
                        ]
                    }
                ],
                "type": "tree",

        "rules": [
                    {
                        "conditions": [
                            {
                                "fn": "booleanEquals",
                                "argv": [
                                    true,
                                    {
                                        "fn": "getAttr",
                                        "argv": [
                                            {
                                                "ref": "PartitionResult"
                                            },
                                            "supportsFIPS"

                                    ]
                                        }
                                ]
                            }
                        ],
                        "type": "tree",
                        "rules": [
                            {
                                "conditions": [],
                                "endpoint": {
```

```
                                    "url": "https://license-manager-user-subscriptions-
fips.{Region}.{PartitionResult#dnsSuffix}",
                                    "properties": {},
                                    "headers": {}

            },
                                "type": "endpoint"
                            }
                        ]
                    },
                    {
                        "conditions": [],
                        "error": "FIPS is enabled but this partition does not support FIPS",
                        "type": "error"
                    }
                ]
            },
            {
                "conditions": [
                    {
                        "fn": "booleanEquals",
                        "argv": [
                            {
                                "ref": "UseDualStack"
                            },
                            true
                        ]
                    }
                ],
                "type": "tree",
                "rules": [
                    {
                        "conditions": [
                            {
                                "fn": "booleanEquals",
                                "argv": [
                                    true,
                                    {

                                        "fn": "getAttr",
                                            "argv": [
                                                {
                                                    "ref": "PartitionResult"
                                                },
                                                "supportsDualStack"
                                            ]
                                        }
                                    ]
```

```
                                    }
                                ],
                                "type": "tree",
                                "rules": [
                                    {

                                        "conditions": [],
                                        "endpoint": {
                                            "url": "https://license-manager-user-
subscriptions.{Region}.{PartitionResult#dualStackDnsSuffix}",
                                            "properties": {},
                                            "headers": {}
                                        },
                                        "type": "endpoint"
                                    }
                                ]
                            },
                            {
                                "conditions": [],
                                "error": "DualStack is enabled but this partition does
not support DualStack",
                                "type": "error"
                            }
                        ]
                    },
                    {
                        "conditions": [],
                        "endpoint": {
                            "url": "https://license-manager-user-
subscriptions.{Region}.{PartitionResult#dnsSuffix}",
                            "properties": {},
                            "headers": {}
                        },
                        "type": "endpoint"
                    }
                ]
            }
        ]
    },
    {
        "conditions":
[],
        "error": "Invalid Configuration: Missing Region",
        "type": "error"
    }
]
},
"smithy.rules#endpointTests": {
```

```
"testCases": [
  {
    "documentation": "For region us-east-1 with FIPS enabled and DualStack enabled",
    "expect": {
      "endpoint": {
        "url": "https://license-manager-user-subscriptions-fips.us-east-1.api.aws"
      }
    },
    "params": {
      "Region": "us-east-1",
      "UseFIPS": true,
      "UseDualStack": true
    }
  },
  {
    "documentation":
"For region us-east-1 with FIPS enabled and DualStack disabled",
    "expect": {
      "endpoint": {
        "url": "https://license-manager-user-subscriptions-fips.us-east-1.amazonaws.com"
      }
    },
    "params": {
      "Region": "us-east-1",
      "UseFIPS": true,
      "UseDualStack": false
    }
  },
  {
    "documentation": "For region us-east-1 with FIPS disabled and DualStack enabled",
    "expect": {
      "endpoint": {
        "url": "https://license-manager-user-subscriptions.us-east-1.api.aws"
      }
    },

 "params": {
      "Region": "us-east-1",
      "UseFIPS": false,
      "UseDualStack": true
    }
  },
  {
    "documentation": "For region us-east-1 with FIPS disabled and DualStack disabled",
    "expect": {
      "endpoint": {
        "url": "https://license-manager-user-subscriptions.us-east-1.amazonaws.com"
      }
```

```
      },
      "params": {
        "Region": "us-east-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region cn-north-1 with
 FIPS enabled and DualStack enabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-user-subscriptions-fips.cn-north-
1.api.amazonwebservices.com.cn"
        }
      },
      "params": {
        "Region": "cn-north-1",
        "UseFIPS": true,
        "UseDualStack": true
      }
    },
    {
      "documentation": "For region cn-north-1 with FIPS enabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-user-subscriptions-fips.cn-north-1.amazonaws.com.cn"
        }
      },

  "params": {
        "Region": "cn-north-1",
        "UseFIPS": true,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region cn-north-1 with FIPS disabled and DualStack enabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-user-subscriptions.cn-north-1.api.amazonwebservices.com.cn"
        }
      },
      "params": {
        "Region": "cn-north-1",
        "UseFIPS": false,
        "UseDualStack": true
      }
```

```
        },
        {
          "documentation": "For region cn-north-1
with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-user-subscriptions.cn-north-1.amazonaws.com.cn"
            }
          },
          "params": {
            "Region": "cn-north-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack enabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-user-subscriptions-fips.us-gov-east-1.api.aws"
            }
          },

      "params": {
            "Region": "us-gov-east-1",
            "UseFIPS": true,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-user-subscriptions-fips.us-gov-east-1.amazonaws.com"
            }
          },
          "params": {
            "Region": "us-gov-east-1",
            "UseFIPS": true,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-gov-east-1
with FIPS disabled and DualStack enabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-user-subscriptions.us-gov-east-1.api.aws"
```

```
            }
          },
          "params": {
            "Region": "us-gov-east-1",
            "UseFIPS": false,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region us-gov-east-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-user-subscriptions.us-gov-east-1.amazonaws.com"
            }
          },

    "params": {
            "Region": "us-gov-east-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack enabled",
          "expect": {
            "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
          },
          "params": {
            "Region": "us-iso-east-1",
            "UseFIPS": true,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack disabled",
          "expect":
{
            "endpoint": {
              "url": "https://license-manager-user-subscriptions-fips.us-iso-east-1.c2s.ic.gov"
            }
          },
          "params": {
            "Region": "us-iso-east-1",
            "UseFIPS": true,
            "UseDualStack": false
          }
        },
        {
```

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            "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack enabled",
            "expect": {
              "error": "DualStack is enabled but this partition does not support DualStack"
            },
            "params": {
              "Region": "us-iso-east-1",
              "UseFIPS": false,
              "UseDualStack":
true
            }
          },
          {
            "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack disabled",
            "expect": {
              "endpoint": {
                "url": "https://license-manager-user-subscriptions.us-iso-east-1.c2s.ic.gov"
              }
            },
            "params": {
              "Region": "us-iso-east-1",
              "UseFIPS": false,
              "UseDualStack": false
            }
          },
          {
            "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack enabled",
            "expect": {
              "error": "FIPS and DualStack are enabled, but
this partition does not support one or both"
            },
            "params": {
              "Region": "us-isob-east-1",
              "UseFIPS": true,
              "UseDualStack": true
            }
          },
          {
            "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack disabled",
            "expect": {
              "endpoint": {
                "url": "https://license-manager-user-subscriptions-fips.us-isob-east-1.sc2s.sgov.gov"
              }
            },
            "params": {
              "Region": "us-isob-east-1",
              "UseFIPS": true,
              "UseDualStack": false
            }
```

```
},
        {
          "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack enabled",
          "expect": {
            "error": "DualStack is enabled but this partition does not support DualStack"
          },
          "params": {
            "Region": "us-isob-east-1",
            "UseFIPS": false,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-user-subscriptions.us-isob-east-1.sc2s.sgov.gov"
            }
          },
           "params": {
            "Region": "us-isob-east-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For custom endpoint with region set and fips disabled and dualstack disabled",
          "expect": {
            "endpoint": {
              "url": "https://example.com"
            }
          },
          "params": {
            "Region": "us-east-1",
            "UseFIPS": false,
            "UseDualStack": false,
            "Endpoint": "https://example.com"
          }
        },
        {

"documentation": "For custom endpoint with region not set and fips disabled and dualstack disabled",
          "expect": {
            "endpoint": {
              "url": "https://example.com"
            }
          },
```

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            "params": {
              "UseFIPS": false,
              "UseDualStack": false,
              "Endpoint": "https://example.com"
            }
          },
          {
            "documentation": "For custom endpoint with fips enabled and dualstack disabled",
            "expect": {
              "error": "Invalid Configuration: FIPS and custom endpoint are not supported"
            },
            "params": {
              "Region": "us-east-1",
               "UseFIPS": true,
              "UseDualStack": false,
              "Endpoint": "https://example.com"
            }
          },
          {
            "documentation": "For custom endpoint with fips disabled and dualstack enabled",
            "expect": {
              "error": "Invalid Configuration: Dualstack and custom endpoint are not supported"
            },
            "params": {
              "Region": "us-east-1",
              "UseFIPS": false,
              "UseDualStack": true,
              "Endpoint": "https://example.com"
            }
          },
          {
            "documentation": "Missing region",
            "expect": {
               "error": "Invalid Configuration: Missing Region"
            }
          }
        ],
        "version": "1.0"
      }
    }
  },
  "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProviders": {
    "type": "operation",
    "input": {
      "target": "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProvidersRequest"
    },
    "output": {
      "target": "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProvidersResponse"
```

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        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Lists the identity providers for user-based subscriptions.</p>",
          "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/identity-provider/ListIdentityProviders"
          },
          "smithy.api#paginated":
{
            "inputToken": "NextToken",
            "outputToken": "NextToken",
            "pageSize": "MaxResults",
            "items": "IdentityProviderSummaries"
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProvidersRequest": {
        "type": "structure",
        "members": {
          "MaxResults": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#BoxInteger",
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
```

```
            },
            "NextToken": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>Token for the next set of results.</p>"
               }
            }
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProvidersResponse":
{
         "type": "structure",
         "members": {
            "IdentityProviderSummaries": {
               "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummaryList",
               "traits": {
                  "smithy.api#documentation": "<p>Metadata that describes the list identity providers operation.</p>",
                  "smithy.api#required": {}
               }
            },
            "NextToken": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>Token for the next set of results.</p>"
               }
            }
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListInstances": {
         "type": "operation",
         "input": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ListInstancesRequest"
          },
         "output": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ListInstancesResponse"
         },
         "errors": [
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
```

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            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
             },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Lists the EC2 instances providing user-based subscriptions.</p>",
            "smithy.api#http": {
               "code": 200,
               "method": "POST",
               "uri": "/instance/ListInstances"
            },
            "smithy.api#paginated": {
               "inputToken": "NextToken",
               "outputToken": "NextToken",
               "pageSize": "MaxResults",
               "items": "InstanceSummaries"
            }
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListInstancesRequest": {
         "type": "structure",
         "members": {
            "MaxResults": {
               "target": "com.amazonaws.licensemanagerusersubscriptions#BoxInteger",
                "traits": {
                  "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
               }
            },
            "NextToken": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>Token for the next set of results.</p>"
               }
            },
            "Filters": {
               "target": "com.amazonaws.licensemanagerusersubscriptions#FilterList",
               "traits": {
                  "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those
that match one or\n      more sets of key-value pairs that you specify.</p>"
               }
            }
```

```
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListInstancesResponse": {
        "type":
"structure",
        "members": {
          "InstanceSummaries": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceSummaryList",
            "traits": {
              "smithy.api#documentation": "<p>Metadata that describes the list instances operation.</p>"
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptions": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptionsRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptionsResponse"
         },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
          },
          {
```

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            "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Lists the user-based subscription products available from an identity
provider.</p>",
          "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/user/ListProductSubscriptions"
          },
          "smithy.api#paginated": {
            "inputToken": "NextToken",
            "outputToken": "NextToken",
            "pageSize": "MaxResults",
            "items": "ProductUserSummaries"
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptionsRequest": {
        "type": "structure",
        "members": {
          "Product": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The name
 of the user-based subscription product.</p>",
              "smithy.api#required": {}
            }
          },
          "IdentityProvider": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
            "traits": {
              "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
              "smithy.api#required": {}
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#BoxInteger",
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          },
          "Filters": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#FilterList",
            "traits": {
```

```
  "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those that match one or\n      more sets of key-value pairs that you specify.</p>"
                }
            },
            "NextToken": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>Token for the next set of results.</p>"
                }
            }
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptionsResponse": {
        "type": "structure",
        "members": {
            "ProductUserSummaries": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummaryList",
                "traits": {
                    "smithy.api#documentation": "<p>Metadata that describes the list product subscriptions operation.</p>"
                }
            },

     "NextToken": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>Token for the next set of results.</p>"
                }
            }
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociations": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociationsRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociationsResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
            },
            {
                "target":
```

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"com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists user associations for an identity provider.</p>",
            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/user/ListUserAssociations"
            },
            "smithy.api#paginated":
{
                "inputToken": "NextToken",
                "outputToken": "NextToken",
                "pageSize": "MaxResults",
                "items": "InstanceUserSummaries"
            }
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociationsRequest": {
        "type": "structure",
        "members": {
            "InstanceId": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The ID of the EC2 instance, which provides user-based
subscriptions.</p>",
                    "smithy.api#required": {}
                }
            },
            "IdentityProvider": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
                "traits": {
                    "smithy.api#documentation": "<p>An object that specifies details for the identity
 provider.</p>",
                    "smithy.api#required": {}
```

```
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#BoxInteger",
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          },
          "Filters": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#FilterList",
            "traits": {
              "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those
that match one or\n      more sets of key-value pairs that you specify.</p>"
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for
 the next set of results.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociationsResponse": {
        "type": "structure",
        "members": {
          "InstanceUserSummaries": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummaryList",
            "traits": {
              "smithy.api#documentation": "<p>Metadata that describes the list user association operation.</p>"
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummary": {
        "type": "structure",
        "members": {

        "Username": {
              "target": "smithy.api#String",
              "traits": {
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                "smithy.api#documentation": "<p>The user name from the identity provider of the user.</p>",
                "smithy.api#required": {}
            }
        },
        "Product": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
                "smithy.api#required": {}
            }
        },
        "IdentityProvider": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
            "traits": {
                "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
                "smithy.api#required": {}
            }

    },
        "Status": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The status of a product for a user.</p>",
                "smithy.api#required": {}
            }
        },
        "StatusMessage": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The status message for a product for a user.</p>"
            }
        },
        "Domain": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The domain name of the user.</p>"
            }
        },
        "SubscriptionStartDate": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The
start date of a subscription.</p>"
            }
        },
        "SubscriptionEndDate": {
            "target": "smithy.api#String",
            "traits": {
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```
            "smithy.api#documentation": "<p>The end date of a subscription.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>The summary of the user-based subscription products for a user.</p>"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummaryList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummary"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProvider": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProviderRequest"
       },
      "output": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProviderResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
         },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Registers an identity provider for user-based subscriptions.</p>",
        "smithy.api#http": {
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            "code": 200,
            "method": "POST",
            "uri": "/identity-provider/RegisterIdentityProvider"
          },
          "smithy.api#idempotent": {}
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProviderRequest": {
        "type": "structure",
        "members": {
          "IdentityProvider": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
            "traits": {
              "smithy.api#documentation": "<p>An object that specifies details for the identity
 provider.</p>",
              "smithy.api#required": {}
            }
          },
          "Product": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
              "smithy.api#required": {}
            }
          },
          "Settings": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#Settings",
            "traits": {
              "smithy.api#documentation": "<p>The registered identity providers product related configuration
 settings such as the\n      subnets to provision VPC endpoints.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProviderResponse": {
        "type": "structure",
        "members": {
          "IdentityProviderSummary":
 {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary",
            "traits": {
              "smithy.api#documentation": "<p>Metadata that describes the results of an identity provider
 operation.</p>",
              "smithy.api#required": {}
            }
          }
        }
      },
```

```
    "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException": {
      "type": "structure",
      "members": {
        "message": {
          "target": "smithy.api#String"
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>The resource couldn't be found.</p>",
        "smithy.api#error": "client",
        "smithy.api#httpError": 404
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#SecurityGroup": {
      "type": "string",

  "traits": {
        "smithy.api#length": {
          "min": 5,
          "max": 200
        },
        "smithy.api#pattern": "^sg-(([0-9a-z]{8})|([0-9a-z]{17}))$"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException": {
      "type": "structure",
      "members": {
        "message": {
          "target": "smithy.api#String"
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>The request failed because a service quota is exceeded.</p>",
        "smithy.api#error": "client"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#Settings": {
      "type": "structure",
      "members": {
        "Subnets": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#Subnets",
          "traits": {
            "smithy.api#documentation":
"<p>The subnets defined for the registered identity provider.</p>",
            "smithy.api#length": {
              "min": 1
            },
            "smithy.api#required": {}
```

```
            }
          },
          "SecurityGroupId": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#SecurityGroup",
            "traits": {
              "smithy.api#documentation": "<p>A security group ID that allows inbound TCP port 1688
communication between resources in\n      your VPC and the VPC endpoint for activation servers.</p>",
              "smithy.api#required": {}
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>The registered identity providers product related configuration settings
such as the\n      subnets to provision VPC endpoints, and the security group ID that
 is associated with the VPC\n      endpoints. The security group should permit inbound TCP port 1688
communication from resources\n      in the VPC.</p>"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscription": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscriptionRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscriptionResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
           },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
          }
```

```
        ],
        "traits": {
            "smithy.api#documentation": "<p>Starts a product subscription for a user with the specified identity provider.</p>\n        <note>\n            <p>Your estimated bill for charges on the number of users and related costs will take 48\n        hours to appear for billing periods that haven't closed (marked as <b>Pending</b> billing status) in Amazon Web Services Billing.
 For more information, see <a href=\"https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/invoice.html\">Viewing your\n        monthly charges</a> in the <i>Amazon Web Services Billing User Guide</i>.</p>\n        </note>",
            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/user/StartProductSubscription"
            }
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscriptionRequest": {
        "type": "structure",
        "members": {
            "Username": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The user name from the identity provider of the user.</p>",
                    "smithy.api#required": {}
                }
            },
            "IdentityProvider": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
                 "traits": {
                    "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
                    "smithy.api#required": {}
                }
            },
            "Product": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
                    "smithy.api#required": {}
                }
            },
            "Domain": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The domain name of the user.</p>"
                }
            }
        }
    },
```

```
    "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscriptionResponse": {
      "type": "structure",
       "members": {
        "ProductUserSummary": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummary",
          "traits": {
            "smithy.api#documentation": "<p>Metadata that describes the start product subscription
operation.</p>",
            "smithy.api#required": {}
          }
        }
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscription": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscriptionRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscriptionResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"

  },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Stops a product subscription for a user with the specified identity
provider.</p>",
```

```
            "smithy.api#http": {
              "code": 200,
              "method": "POST",
              "uri": "/user/StopProductSubscription"
            }
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscriptionRequest": {
          "type": "structure",
          "members": {
            "Username": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The user name from the identity provider for the user.</p>",
                "smithy.api#required": {}
              }
            },
            "IdentityProvider": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
              "traits": {
                "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
                "smithy.api#required":
{}
              }
            },
            "Product": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
                "smithy.api#required": {}
              }
            },
            "Domain": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The domain name of the user.</p>"
              }
            }
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscriptionResponse": {
          "type": "structure",
          "members": {
            "ProductUserSummary": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummary",
              "traits": {
                "smithy.api#documentation":
```

```
"<p>Metadata that describes the start product subscription operation.</p>",
                    "smithy.api#required": {}
                }
            }
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#StringList": {
        "type": "list",
        "member": {
            "target": "smithy.api#String"
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#Subnet": {
        "type": "string",
        "traits": {
            "smithy.api#pattern": "subnet-[a-z0-9]{8,17}"
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#Subnets": {
        "type": "list",
        "member": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#Subnet"
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException": {
        "type": "structure",
        "members": {
            "message": {

             "target": "smithy.api#String"
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>The request was denied because of request throttling. Retry the
request.</p>",
            "smithy.api#error": "client"
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettings": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettingsRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettingsResponse"
        },
        "errors": [
            {
```

```
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Updates additional product configuration settings for the registered identity\n      provider.</p>",
          "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/identity-provider/UpdateIdentityProviderSettings"
          },
          "smithy.api#idempotent": {}
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettingsRequest": {
        "type": "structure",
        "members": {
          "IdentityProvider": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
            "traits": {
              "smithy.api#required": {}
            }
          },
          "Product": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
              "smithy.api#required": {}
            }
          },
          "UpdateSettings": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#UpdateSettings",
            "traits": {
              "smithy.api#documentation": "<p>Updates the registered identity providers product related configuration settings. You can\n      update any combination of settings in a single operation such as the:</p>\n<ul>\n          <li>\n            <p>Subnets which you want to add to provision VPC endpoints.</p>\n          </li>\n          <li>\n            <p>Subnets which you want to remove the VPC endpoints from.</p>\n          </li>\n          <li>\n            <p>Security group ID which permits traffic to the VPC endpoints.</p>\n          </li>\n        </ul>",
              "smithy.api#required": {}
```

```
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettingsResponse": {
        "type": "structure",
        "members": {
          "IdentityProviderSummary": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary",
            "traits": {
              "smithy.api#required": {}
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#UpdateSettings": {
        "type": "structure",
        "members": {
          "AddSubnets": {

           "target": "com.amazonaws.licensemanagerusersubscriptions#Subnets",
            "traits": {
              "smithy.api#documentation": "<p>The ID of one or more subnets in which License Manager will
create a VPC endpoint for products that\n      require connectivity to activation servers.</p>",
              "smithy.api#required": {}
            }
          },
          "RemoveSubnets": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#Subnets",
            "traits": {
              "smithy.api#documentation": "<p>The ID of one or more subnets to remove.</p>",
              "smithy.api#required": {}
            }
          },
          "SecurityGroupId": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#SecurityGroup",
            "traits": {
              "smithy.api#documentation": "<p>A security group ID
 that allows inbound TCP port 1688 communication between resources in\n      your VPC and the VPC endpoints for
activation servers.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Updates the registered identity providers product related configuration
settings such as\n      the subnets to provision VPC endpoints.</p>"
        }
      },
```

```
    "com.amazonaws.licensemanagerusersubscriptions#ValidationException": {
      "type": "structure",
      "members": {
        "message": {
          "target": "smithy.api#String"
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>A parameter is not valid.</p>",
        "smithy.api#error": "client"
      }
    }
  }
}
{
  "smithy": "2.0",
  "metadata": {
    "suppressions": [
      {
        "id": "HttpMethodSemantics",
        "namespace": "*"
      },
      {
        "id": "HttpResponseCodeSemantics",
        "namespace": "*"
      },
      {
        "id": "PaginatedTrait",
        "namespace": "*"
      },
      {
        "id": "HttpHeaderTrait",
        "namespace": "*"
      },
      {
        "id": "HttpUriConflict",
        "namespace": "*"
      },
      {
        "id": "Service",
        "namespace": "*"
      }
    ]
  },
  "shapes": {
    "com.amazonaws.licensemanager#AWSLicenseManager": {
      "type": "service",
      "version": "2018-08-01",
```

```
    "operations": [
        {
            "target": "com.amazonaws.licensemanager#AcceptGrant"
        },

{
            "target": "com.amazonaws.licensemanager#CheckInLicense"
        },
        {
            "target": "com.amazonaws.licensemanager#CheckoutBorrowLicense"
        },
        {
            "target": "com.amazonaws.licensemanager#CheckoutLicense"
        },
        {
            "target": "com.amazonaws.licensemanager#CreateGrant"
        },
        {
            "target": "com.amazonaws.licensemanager#CreateGrantVersion"
        },
        {
            "target": "com.amazonaws.licensemanager#CreateLicense"
        },
        {
            "target": "com.amazonaws.licensemanager#CreateLicenseConfiguration"
        },
        {
            "target": "com.amazonaws.licensemanager#CreateLicenseConversionTaskForResource"
        },
        {
            "target": "com.amazonaws.licensemanager#CreateLicenseManagerReportGenerator"
         },
        {
            "target": "com.amazonaws.licensemanager#CreateLicenseVersion"
        },
        {
            "target": "com.amazonaws.licensemanager#CreateToken"
        },
        {
            "target": "com.amazonaws.licensemanager#DeleteGrant"
        },
        {
            "target": "com.amazonaws.licensemanager#DeleteLicense"
        },
        {
            "target": "com.amazonaws.licensemanager#DeleteLicenseConfiguration"
        },
        {
```

```
      "target": "com.amazonaws.licensemanager#DeleteLicenseManagerReportGenerator"
    },
    {
      "target": "com.amazonaws.licensemanager#DeleteToken"
    },
    {
      "target": "com.amazonaws.licensemanager#ExtendLicenseConsumption"

  },
    {
      "target": "com.amazonaws.licensemanager#GetAccessToken"
    },
    {
      "target": "com.amazonaws.licensemanager#GetGrant"
    },
    {
      "target": "com.amazonaws.licensemanager#GetLicense"
    },
    {
      "target": "com.amazonaws.licensemanager#GetLicenseConfiguration"
    },
    {
      "target": "com.amazonaws.licensemanager#GetLicenseConversionTask"
    },
    {
      "target": "com.amazonaws.licensemanager#GetLicenseManagerReportGenerator"
    },
    {
      "target": "com.amazonaws.licensemanager#GetLicenseUsage"
    },
    {
      "target": "com.amazonaws.licensemanager#GetServiceSettings"
    },
    {
      "target": "com.amazonaws.licensemanager#ListAssociationsForLicenseConfiguration"
     },
    {
      "target": "com.amazonaws.licensemanager#ListDistributedGrants"
    },
    {
      "target": "com.amazonaws.licensemanager#ListFailuresForLicenseConfigurationOperations"
    },
    {
      "target": "com.amazonaws.licensemanager#ListLicenseConfigurations"
    },
    {
      "target": "com.amazonaws.licensemanager#ListLicenseConversionTasks"
    },
```

```
{
   "target": "com.amazonaws.licensemanager#ListLicenseManagerReportGenerators"
},
{
   "target": "com.amazonaws.licensemanager#ListLicenses"
},
{
   "target": "com.amazonaws.licensemanager#ListLicenseSpecificationsForResource"
},
{

  "target": "com.amazonaws.licensemanager#ListLicenseVersions"
},
{
   "target": "com.amazonaws.licensemanager#ListReceivedGrants"
},
{
   "target": "com.amazonaws.licensemanager#ListReceivedGrantsForOrganization"
},
{
   "target": "com.amazonaws.licensemanager#ListReceivedLicenses"
},
{
   "target": "com.amazonaws.licensemanager#ListReceivedLicensesForOrganization"
},
{
   "target": "com.amazonaws.licensemanager#ListResourceInventory"
},
{
   "target": "com.amazonaws.licensemanager#ListTagsForResource"
},
{
   "target": "com.amazonaws.licensemanager#ListTokens"
},
{
   "target": "com.amazonaws.licensemanager#ListUsageForLicenseConfiguration"
 },
{
   "target": "com.amazonaws.licensemanager#RejectGrant"
},
{
   "target": "com.amazonaws.licensemanager#TagResource"
},
{
   "target": "com.amazonaws.licensemanager#UntagResource"
},
{
   "target": "com.amazonaws.licensemanager#UpdateLicenseConfiguration"
```

```
        },
        {
          "target": "com.amazonaws.licensemanager#UpdateLicenseManagerReportGenerator"
        },
        {
          "target": "com.amazonaws.licensemanager#UpdateLicenseSpecificationsForResource"
        },
        {
          "target": "com.amazonaws.licensemanager#UpdateServiceSettings"
        }
      ],
      "traits": {
        "aws.api#service": {
          "sdkId": "License Manager",
          "arnNamespace": "license-manager",
          "cloudFormationName": "LicenseManager",
          "cloudTrailEventSource": "licensemanager.amazonaws.com",
          "endpointPrefix": "license-manager"
        },
        "aws.auth#sigv4": {
          "name": "license-manager"
        },
        "aws.protocols#awsJson1_1": {},
        "smithy.api#documentation": "<p>License Manager makes it easier to manage licenses from software vendors across multiple \n        Amazon Web Services accounts and on-premises servers.</p>",
        "smithy.api#title": "AWS License Manager",
        "smithy.api#xmlNamespace": {
          "uri": "https://license-manager.amazonaws.com/doc/2018_08_01"
        },
        "smithy.rules#endpointRuleSet": {
          "version": "1.0",
          "parameters": {
            "Region": {
              "builtIn": "AWS::Region",
              "required": false,
              "documentation": "The AWS region used to dispatch the request.",
              "type": "String"
            },
            "UseDualStack": {
              "builtIn": "AWS::UseDualStack",
              "required": true,
              "default": false,
              "documentation": "When true, use the dual-stack endpoint. If the configured endpoint does not support dual-stack, dispatching the request MAY return an error.",
              "type": "Boolean"
            },
            "UseFIPS": {
              "builtIn": "AWS::UseFIPS",
```

```
            "required": true,
            "default": false,
            "documentation": "When true, send
 this request to the FIPS-compliant regional endpoint. If the configured endpoint does not have a FIPS compliant
endpoint, dispatching the request will return an error.",
            "type": "Boolean"
          },
          "Endpoint": {
            "builtIn": "SDK::Endpoint",
            "required": false,
            "documentation": "Override the endpoint used to send this request",
            "type": "String"
          }
        },
        "rules": [
          {
            "conditions": [
              {
                "fn": "isSet",
                "argv": [
                  {
                    "ref": "Endpoint"
                  }
                ]

              }
            ],
            "type": "tree",
            "rules": [
              {
                "conditions": [
                  {
                    "fn": "booleanEquals",
                    "argv": [
                      {
                        "ref": "UseFIPS"
                      },
                      true
                    ]
                  }
                ],
                "error": "Invalid Configuration: FIPS and custom endpoint are not supported",
                "type": "error"
              },
              {

          "conditions": [
                  {
```

```
                "fn": "booleanEquals",
                "argv": [
                  {
                    "ref": "UseDualStack"
                  },
                  true
                ]
              }
            ],
            "error": "Invalid Configuration: Dualstack and custom endpoint are not supported",
            "type": "error"
          },
          {
            "conditions": [],
            "endpoint": {
              "url": {
                "ref": "Endpoint"
               },
              "properties": {},
              "headers": {}
            },
            "type": "endpoint"
          }
        ]
      },
      {
        "conditions": [
          {
            "fn": "isSet",
            "argv": [
              {
                "ref": "Region"
              }
            ]
          }
        ],
        "type": "tree",
        "rules": [
          {
            "conditions": [
              {
                "fn": "aws.partition",
                "argv": [
                  {
                    "ref": "Region"
                  }
                ],
                "assign": "PartitionResult"
```

```
            }
          ],
          "type": "tree",
          "rules": [
            {
              "conditions": [
                {
                  "fn": "booleanEquals",
                  "argv": [
                    {
                      "ref":
"UseFIPS"
                    },
                    true
                  ]
                },
                {
                  "fn": "booleanEquals",
                  "argv": [
                    {
                      "ref": "UseDualStack"
                    },
                    true
                  ]
                }
              ],
              "type": "tree",
              "rules": [
                {
                  "conditions": [
                    {
                      "fn": "booleanEquals",
                      "argv": [
                        true,
                        {
                          "fn": "getAttr",
                          "argv": [
                            {
                              "ref": "PartitionResult"
                            },
                            "supportsFIPS"
                          ]

                        }
                      ]
                    },
                    {
                      "fn": "booleanEquals",
```

```
                "argv": [
                  true,
                  {
                    "fn": "getAttr",
                    "argv": [
                      {
                        "ref": "PartitionResult"
                      },

    "supportsDualStack"
                    ]
                  }
                ]
              }
            ],
            "type": "tree",
            "rules": [
              {
                "conditions": [],
                "endpoint": {
                  "url": "https://license-manager-
fips.{Region}.{PartitionResult#dualStackDnsSuffix}",
                  "properties": {},
                  "headers": {}

            },
                "type": "endpoint"
              }
            ]
          },
          {
            "conditions": [],
            "error": "FIPS and DualStack are enabled, but this partition does not support one or
both",
            "type": "error"
          }
        ]
      },
      {
        "conditions": [
          {
            "fn": "booleanEquals",

       "argv": [
              {
                "ref": "UseFIPS"
              },
              true
```

```
                ]
              }
            ],
            "type": "tree",
            "rules": [
              {
                "conditions": [
                  {
                    "fn": "booleanEquals",
                    "argv": [
                      true,

{
                        "fn": "getAttr",
                        "argv": [
                          {
                            "ref": "PartitionResult"
                          },
                          "supportsFIPS"
                        ]
                      }
                    ]
                  }
                ],
                "type": "tree",
                "rules": [

{
                    "conditions": [],
                    "endpoint": {
                      "url": "https://license-manager-fips.{Region}.{PartitionResult#dnsSuffix}",
                      "properties": {},
                      "headers": {}
                    },
                    "type": "endpoint"
                  }
                ]
              },
              {
                "conditions": [],
                "error": "FIPS is enabled but this
partition does not support FIPS",
                "type": "error"
              }
            ]
          },
          {
            "conditions": [
```

```
                {
                  "fn": "booleanEquals",
                  "argv": [
                    {
                      "ref": "UseDualStack"
                    },
                    true
                  ]
                }
              ],
              "type": "tree",
               "rules": [
                {
                  "conditions": [
                    {
                      "fn": "booleanEquals",
                      "argv": [
                        true,
                        {
                          "fn": "getAttr",
                          "argv": [
                            {
                              "ref": "PartitionResult"
                            },

    "supportsDualStack"
                            ]
                          }
                        ]
                      }
                    ],
                    "type": "tree",
                    "rules": [
                      {
                        "conditions": [],
                        "endpoint": {
                          "url": "https://license-
manager.{Region}.{PartitionResult#dualStackDnsSuffix}",
                          "properties": {},
                          "headers": {}

              },
                        "type": "endpoint"
                      }
                    ]
                  },
                  {
                    "conditions": [],
```

```
                                "error": "DualStack is enabled but this partition does not support DualStack",
                                "type": "error"
                            }
                        ]
                    },
                    {
                        "conditions": [],
                        "endpoint": {
                            "url": "https://license-manager.{Region}.{PartitionResult#dnsSuffix}",
                            "properties": {},
                            "headers": {}
                        },
                        "type": "endpoint"
                    }
                ]
            }
        ]
    },
    {
        "conditions": [],
        "error": "Invalid Configuration: Missing Region",
        "type": "error"
    }
]
},
"smithy.rules#endpointTests": {
    "testCases": [
        {
            "documentation": "For region af-south-1 with FIPS disabled and DualStack disabled",
            "expect": {
                "endpoint":
{
                    "url": "https://license-manager.af-south-1.amazonaws.com"
                }
            },
            "params": {
                "Region": "af-south-1",
                "UseFIPS": false,
                "UseDualStack": false
            }
        },
        {
            "documentation": "For region ap-east-1 with FIPS disabled and DualStack disabled",
            "expect": {
                "endpoint": {
                    "url": "https://license-manager.ap-east-1.amazonaws.com"
                }
            },
```

```
      "params": {
        "Region": "ap-east-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region ap-northeast-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager.ap-northeast-1.amazonaws.com"
        }
      },
      "params": {
        "Region": "ap-northeast-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region ap-northeast-2 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager.ap-northeast-2.amazonaws.com"
        }
      },
      "params": {
        "Region": "ap-northeast-2",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region ap-northeast-3 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager.ap-northeast-3.amazonaws.com"
        }
      },
      "params": {
        "Region": "ap-northeast-3",
        "UseFIPS": false,
        "UseDualStack": false
      }

  },
    {
      "documentation": "For region ap-south-1 with FIPS disabled and DualStack disabled",
```

```
            "expect": {
              "endpoint": {
                "url": "https://license-manager.ap-south-1.amazonaws.com"
              }
            },
            "params": {
              "Region": "ap-south-1",
              "UseFIPS": false,
              "UseDualStack": false
            }
          },
          {
            "documentation": "For region ap-southeast-1 with FIPS disabled and DualStack disabled",
            "expect": {
              "endpoint": {
                "url": "https://license-manager.ap-southeast-1.amazonaws.com"

}
            },
            "params": {
              "Region": "ap-southeast-1",
              "UseFIPS": false,
              "UseDualStack": false
            }
          },
          {
            "documentation": "For region ap-southeast-2 with FIPS disabled and DualStack disabled",
            "expect": {
              "endpoint": {
                "url": "https://license-manager.ap-southeast-2.amazonaws.com"
              }
            },
            "params": {
              "Region": "ap-southeast-2",
              "UseFIPS": false,
              "UseDualStack": false
            }
          },
          {

"documentation": "For region ap-southeast-3 with FIPS disabled and DualStack disabled",
            "expect": {
              "endpoint": {
                "url": "https://license-manager.ap-southeast-3.amazonaws.com"
              }
            },
            "params": {
              "Region": "ap-southeast-3",
```

```
            "UseFIPS": false,
            "UseDualStack": false
        }
    },
    {
        "documentation": "For region ca-central-1 with FIPS disabled and DualStack disabled",
        "expect": {
            "endpoint": {
                "url": "https://license-manager.ca-central-1.amazonaws.com"
            }
        },

     "params": {
            "Region": "ca-central-1",
            "UseFIPS": false,
            "UseDualStack": false
        }
    },
    {
        "documentation": "For region eu-central-1 with FIPS disabled and DualStack disabled",
        "expect": {
            "endpoint": {
                "url": "https://license-manager.eu-central-1.amazonaws.com"
            }
        },
        "params": {
            "Region": "eu-central-1",
            "UseFIPS": false,
            "UseDualStack": false
        }
    },
    {
        "documentation": "For region eu-north-1 with FIPS
disabled and DualStack disabled",
        "expect": {
            "endpoint": {
                "url": "https://license-manager.eu-north-1.amazonaws.com"
            }
        },
        "params": {
            "Region": "eu-north-1",
            "UseFIPS": false,
            "UseDualStack": false
        }
    },
    {
        "documentation": "For region eu-south-1 with FIPS disabled and DualStack disabled",
        "expect": {
```

```
            "endpoint": {
              "url": "https://license-manager.eu-south-1.amazonaws.com"
            }
          },
          "params": {
            "Region":
"eu-south-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region eu-west-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager.eu-west-1.amazonaws.com"
            }
          },
          "params": {
            "Region": "eu-west-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region eu-west-2 with FIPS disabled and DualStack disabled",
          "expect": {

          "endpoint": {
              "url": "https://license-manager.eu-west-2.amazonaws.com"
            }
          },
          "params": {
            "Region": "eu-west-2",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region eu-west-3 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager.eu-west-3.amazonaws.com"
            }
          },
          "params": {
            "Region": "eu-west-3",
            "UseFIPS": false,
```

```
        "UseDualStack": false
            }
        },
        {
            "documentation": "For region me-south-1 with FIPS disabled and DualStack disabled",
            "expect": {
                "endpoint": {
                    "url": "https://license-manager.me-south-1.amazonaws.com"
                }
            },
            "params": {
                "Region": "me-south-1",
                "UseFIPS": false,
                "UseDualStack": false
            }
        },
        {
            "documentation": "For region sa-east-1 with FIPS disabled and DualStack disabled",
            "expect": {
                "endpoint": {
                    "url": "https://license-manager.sa-east-1.amazonaws.com"
                 }
            },
            "params": {
                "Region": "sa-east-1",
                "UseFIPS": false,
                "UseDualStack": false
            }
        },
        {
            "documentation": "For region us-east-1 with FIPS disabled and DualStack disabled",
            "expect": {
                "endpoint": {
                    "url": "https://license-manager.us-east-1.amazonaws.com"
                }
            },
            "params": {
                "Region": "us-east-1",
                "UseFIPS": false,
                "UseDualStack": false
            }

    },
        {
            "documentation": "For region us-east-1 with FIPS enabled and DualStack disabled",
            "expect": {
                "endpoint": {
```

```
            "url": "https://license-manager-fips.us-east-1.amazonaws.com"
          }
        },
        "params": {
          "Region": "us-east-1",
          "UseFIPS": true,
          "UseDualStack": false
        }
      },
      {
        "documentation": "For region us-east-2 with FIPS disabled and DualStack disabled",
        "expect": {
          "endpoint": {
            "url": "https://license-manager.us-east-2.amazonaws.com"
          }

      },
        "params": {
          "Region": "us-east-2",
          "UseFIPS": false,
          "UseDualStack": false
        }
      },
      {
        "documentation": "For region us-east-2 with FIPS enabled and DualStack disabled",
        "expect": {
          "endpoint": {
            "url": "https://license-manager-fips.us-east-2.amazonaws.com"
          }
        },
        "params": {
          "Region": "us-east-2",
          "UseFIPS": true,
          "UseDualStack": false
        }
      },
      {
        "documentation": "For region
us-west-1 with FIPS disabled and DualStack disabled",
        "expect": {
          "endpoint": {
            "url": "https://license-manager.us-west-1.amazonaws.com"
          }
        },
        "params": {
          "Region": "us-west-1",
          "UseFIPS": false,
          "UseDualStack": false
```

```
      }
    },
    {
      "documentation": "For region us-west-1 with FIPS enabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-fips.us-west-1.amazonaws.com"
        }
      },
      "params": {

  "Region": "us-west-1",
        "UseFIPS": true,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region us-west-2 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager.us-west-2.amazonaws.com"
        }
      },
      "params": {
        "Region": "us-west-2",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region us-west-2 with FIPS enabled and DualStack disabled",

"expect": {
        "endpoint": {
          "url": "https://license-manager-fips.us-west-2.amazonaws.com"
        }
      },
      "params": {
        "Region": "us-west-2",
        "UseFIPS": true,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region us-east-1 with FIPS enabled and DualStack enabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-fips.us-east-1.api.aws"
```

```
            }
          },
          "params": {
            "Region": "us-east-1",
            "UseFIPS": true,

            "UseDualStack": true
          }
        },
        {
          "documentation": "For region us-east-1 with FIPS disabled and DualStack enabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager.us-east-1.api.aws"
            }
          },
          "params": {
            "Region": "us-east-1",
            "UseFIPS": false,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region cn-north-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url":
"https://license-manager.cn-north-1.amazonaws.com.cn"
            }
          },
          "params": {
            "Region": "cn-north-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region cn-northwest-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager.cn-northwest-1.amazonaws.com.cn"
            }
          },
          "params": {
            "Region": "cn-northwest-1",
            "UseFIPS": false,
            "UseDualStack": false
```

```
}
        },
        {
          "documentation": "For region cn-north-1 with FIPS enabled and DualStack enabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-fips.cn-north-1.api.amazonwebservices.com.cn"
            }
          },
          "params": {
            "Region": "cn-north-1",
            "UseFIPS": true,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region cn-north-1 with FIPS enabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-fips.cn-north-1.amazonaws.com.cn"
             }
          },
          "params": {
            "Region": "cn-north-1",
            "UseFIPS": true,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region cn-north-1 with FIPS disabled and DualStack enabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager.cn-north-1.api.amazonwebservices.com.cn"
            }
          },
          "params": {
            "Region": "cn-north-1",
            "UseFIPS": false,
            "UseDualStack": true
          }
        },

    {
          "documentation": "For region us-gov-east-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager.us-gov-east-1.amazonaws.com"
            }
```

```
      },
      "params": {
        "Region": "us-gov-east-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-fips.us-gov-east-1.amazonaws.com"
        }
      },
      "params": {
        "Region": "us-gov-east-1",
        "UseFIPS": true,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region us-gov-west-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager.us-gov-west-1.amazonaws.com"
        }
      },
      "params": {
        "Region": "us-gov-west-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {
      "documentation":
"For region us-gov-west-1 with FIPS enabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-fips.us-gov-west-1.amazonaws.com"
        }
      },
      "params": {
        "Region": "us-gov-west-1",
        "UseFIPS": true,
        "UseDualStack": false
      }
    },
    {
```

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                "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack enabled",
                "expect": {
                  "endpoint": {
                    "url": "https://license-manager-fips.us-gov-east-1.api.aws"
                  }
                },

    "params": {
                  "Region": "us-gov-east-1",
                  "UseFIPS": true,
                  "UseDualStack": true
                }
              },
              {
                "documentation": "For region us-gov-east-1 with FIPS disabled and DualStack enabled",
                "expect": {
                  "endpoint": {
                    "url": "https://license-manager.us-gov-east-1.api.aws"
                  }
                },
                "params": {
                  "Region": "us-gov-east-1",
                  "UseFIPS": false,
                  "UseDualStack": true
                }
              },
              {
                "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack
disabled",
                "expect": {
                  "endpoint": {
                    "url": "https://license-manager.us-iso-east-1.c2s.ic.gov"
                  }
                },
                "params": {
                  "Region": "us-iso-east-1",
                  "UseFIPS": false,
                  "UseDualStack": false
                }
              },
              {
                "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack enabled",
                "expect": {
                  "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
                },
                "params": {
                  "Region": "us-iso-east-1",
                  "UseFIPS": true,
```

```
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-fips.us-iso-east-1.c2s.ic.gov"
            }
          },
          "params": {
            "Region": "us-iso-east-1",
            "UseFIPS": true,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack enabled",
          "expect": {
            "error": "DualStack is enabled
but this partition does not support DualStack"
          },
          "params": {
            "Region": "us-iso-east-1",
            "UseFIPS": false,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager.us-isob-east-1.sc2s.sgov.gov"
            }
          },
          "params": {
            "Region": "us-isob-east-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },

      {
          "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack enabled",
          "expect": {
            "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
          },
          "params": {
```

```
                "Region": "us-isob-east-1",
                "UseFIPS": true,
                "UseDualStack": true
            }
        },
        {
            "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack disabled",
            "expect": {
                "endpoint": {
                    "url": "https://license-manager-fips.us-isob-east-1.sc2s.sgov.gov"
                }
            },

    "params": {
                "Region": "us-isob-east-1",
                "UseFIPS": true,
                "UseDualStack": false
            }
        },
        {
            "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack enabled",
            "expect": {
                "error": "DualStack is enabled but this partition does not support DualStack"
            },
            "params": {
                "Region": "us-isob-east-1",
                "UseFIPS": false,
                "UseDualStack": true
            }
        },
        {
            "documentation": "For custom endpoint with region set and fips disabled and dualstack disabled",

  "expect": {
                "endpoint": {
                    "url": "https://example.com"
                }
            },
            "params": {
                "Region": "us-east-1",
                "UseFIPS": false,
                "UseDualStack": false,
                "Endpoint": "https://example.com"
            }
        },
        {
            "documentation": "For custom endpoint with region not set and fips disabled and dualstack
disabled",
```

```
                "expect": {
                  "endpoint": {
                    "url": "https://example.com"
                  }
                },
                "params": {
                  "UseFIPS": false,

      "UseDualStack": false,
                  "Endpoint": "https://example.com"
                }
              },
              {
                "documentation": "For custom endpoint with fips enabled and dualstack disabled",
                "expect": {
                  "error": "Invalid Configuration: FIPS and custom endpoint are not supported"
                },
                "params": {
                  "Region": "us-east-1",
                  "UseFIPS": true,
                  "UseDualStack": false,
                  "Endpoint": "https://example.com"
                }
              },
              {
                "documentation": "For custom endpoint with fips disabled and dualstack enabled",
                "expect": {
                  "error":
"Invalid Configuration: Dualstack and custom endpoint are not supported"
                },
                "params": {
                  "Region": "us-east-1",
                  "UseFIPS": false,
                  "UseDualStack": true,
                  "Endpoint": "https://example.com"
                }
              },
              {
                "documentation": "Missing region",
                "expect": {
                  "error": "Invalid Configuration: Missing Region"
                }
              }
            ],
            "version": "1.0"
          }
        }
      },
```

```
    "com.amazonaws.licensemanager#AcceptGrant": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#AcceptGrantRequest"

},
      "output": {
        "target": "com.amazonaws.licensemanager#AcceptGrantResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
          "target": "com.amazonaws.licensemanager#ValidationException"

  }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Accepts the specified grant.</p>"
      }
    },
    "com.amazonaws.licensemanager#AcceptGrantRequest": {
      "type": "structure",
      "members": {
        "GrantArn": {
          "target": "com.amazonaws.licensemanager#Arn",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the grant.</p>",
            "smithy.api#required": {}
          }
        }
      },
```

```
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#AcceptGrantResponse": {
        "type": "structure",
        "members": {
          "GrantArn": {
            "target": "com.amazonaws.licensemanager#Arn",
            "traits": {
              "smithy.api#documentation": "<p>Grant
ARN.</p>"
            }
          },
          "Status": {
            "target": "com.amazonaws.licensemanager#GrantStatus",
            "traits": {
              "smithy.api#documentation": "<p>Grant status.</p>"
            }
          },
          "Version": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Grant version.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#AccessDeniedException": {
        "type": "structure",
        "members": {
          "Message": {
            "target": "com.amazonaws.licensemanager#Message"
          }
        },
        "traits": {
          "aws.protocols#awsQueryError": {

  "code": "ServiceAccessDenied",
            "httpResponseCode": 401
          },
          "smithy.api#documentation": "<p>Access to resource denied.</p>",
          "smithy.api#error": "client",
          "smithy.api#httpError": 401
        }
```

```
},
"com.amazonaws.licensemanager#ActivationOverrideBehavior": {
    "type": "enum",
    "members": {
        "DISTRIBUTED_GRANTS_ONLY": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "DISTRIBUTED_GRANTS_ONLY"
            }
        },
        "ALL_GRANTS_PERMITTED_BY_ISSUER": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "ALL_GRANTS_PERMITTED_BY_ISSUER"
            }
        }
    }
},
"com.amazonaws.licensemanager#AllowedOperation": {

"type": "enum",
    "members": {
        "CREATE_GRANT": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "CreateGrant"
            }
        },
        "CHECKOUT_LICENSE": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "CheckoutLicense"
            }
        },
        "CHECKOUT_BORROW_LICENSE": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "CheckoutBorrowLicense"
            }
        },
        "CHECK_IN_LICENSE": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "CheckInLicense"
            }
        },
        "EXTEND_CONSUMPTION_LICENSE":
```

```
{
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "ExtendConsumptionLicense"
            }
          },
          "LIST_PURCHASED_LICENSES": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "ListPurchasedLicenses"
            }
          },
          "CREATE_TOKEN": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "CreateToken"
            }
          }
        }
      },
      "com.amazonaws.licensemanager#AllowedOperationList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#AllowedOperation"
        },
        "traits": {
          "smithy.api#length": {
            "min": 1,
            "max":
7
          }
        }
      },
      "com.amazonaws.licensemanager#Arn": {
        "type": "string",
        "traits": {
          "smithy.api#length": {
            "min": 0,
            "max": 2048
          },
          "smithy.api#pattern": "^arn:aws(-(cn|us-gov|iso-b|iso-c|iso-d))?:[A-Za-z0-9][A-Za-z0-9_/.-]{0,62}:[A-Za-
z0-9_/.-]{0,63}:[A-Za-z0-9_/.-]{0,63}:[A-Za-z0-9][A-Za-z0-9:_/+=,@.-]{0,1023}$"
        }
      },
      "com.amazonaws.licensemanager#ArnList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#Arn"
```

```
        }
      },
      "com.amazonaws.licensemanager#AuthorizationException": {
        "type": "structure",
        "members": {
          "Message": {
            "target": "com.amazonaws.licensemanager#Message"
          }
        },
        "traits": {
          "aws.protocols#awsQueryError":
{
            "code": "AuthorizationFailure",
            "httpResponseCode": 403
          },
          "smithy.api#documentation": "<p>The Amazon Web Services user account does not have permission to
perform the action. Check the IAM\n        policy associated with this account.</p>",
          "smithy.api#error": "client",
          "smithy.api#httpError": 403
        }
      },
      "com.amazonaws.licensemanager#AutomatedDiscoveryInformation": {
        "type": "structure",
        "members": {
          "LastRunTime": {
            "target": "com.amazonaws.licensemanager#DateTime",
            "traits": {
              "smithy.api#documentation": "<p>Time that automated discovery last ran.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Describes automated discovery.</p>"
        }
      },

    "com.amazonaws.licensemanager#Boolean": {
        "type": "boolean",
        "traits": {
          "smithy.api#default": false
        }
      },
      "com.amazonaws.licensemanager#BorrowConfiguration": {
        "type": "structure",
        "members": {
          "AllowEarlyCheckIn": {
            "target": "com.amazonaws.licensemanager#BoxBoolean",
            "traits": {
```

```
                "smithy.api#documentation": "<p>Indicates whether early check-ins are allowed.</p>",
                "smithy.api#required": {}
              }
            },
            "MaxTimeToLiveInMinutes": {
              "target": "com.amazonaws.licensemanager#BoxInteger",
              "traits": {
                "smithy.api#documentation": "<p>Maximum time for the borrow configuration, in minutes.</p>",
                "smithy.api#required": {}
              }
            }

},
        "traits": {
          "smithy.api#documentation": "<p>Details about a borrow configuration.</p>"
        }
      },
      "com.amazonaws.licensemanager#BoxBoolean": {
        "type": "boolean"
      },
      "com.amazonaws.licensemanager#BoxInteger": {
        "type": "integer"
      },
      "com.amazonaws.licensemanager#BoxLong": {
        "type": "long"
      },
      "com.amazonaws.licensemanager#CheckInLicense": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#CheckInLicenseRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#CheckInLicenseResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"

       },
          {
            "target": "com.amazonaws.licensemanager#ConflictException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
```

```
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Checks in the specified license. Check in a license when it is no longer
in use.</p>"
        }
    },
    "com.amazonaws.licensemanager#CheckInLicenseRequest":
{
        "type": "structure",
        "members": {
            "LicenseConsumptionToken": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>License consumption token.</p>",
                    "smithy.api#required": {}
                }
            },
            "Beneficiary": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>License beneficiary.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#CheckInLicenseResponse": {
        "type": "structure",
        "members": {},
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#CheckoutBorrowLicense":
```

```
{
        "type": "operation",
        "input": {
           "target": "com.amazonaws.licensemanager#CheckoutBorrowLicenseRequest"
        },
        "output": {
           "target": "com.amazonaws.licensemanager#CheckoutBorrowLicenseResponse"
        },
        "errors": [
           {
              "target": "com.amazonaws.licensemanager#AccessDeniedException"
           },
           {
              "target": "com.amazonaws.licensemanager#AuthorizationException"
           },
           {
              "target": "com.amazonaws.licensemanager#EntitlementNotAllowedException"
           },
           {
              "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
           },
           {
              "target": "com.amazonaws.licensemanager#NoEntitlementsAllowedException"
           },
           {
              "target":
"com.amazonaws.licensemanager#RateLimitExceededException"
           },
           {
              "target": "com.amazonaws.licensemanager#RedirectException"
           },
           {
              "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
           },
           {
              "target": "com.amazonaws.licensemanager#ServerInternalException"
           },
           {
              "target": "com.amazonaws.licensemanager#UnsupportedDigitalSignatureMethodException"
           },
           {
              "target": "com.amazonaws.licensemanager#ValidationException"
           }
        ],
        "traits": {
           "smithy.api#documentation": "<p>Checks out the specified license for offline use.</p>"
        }
     },
```

```
    "com.amazonaws.licensemanager#CheckoutBorrowLicenseRequest": {
      "type": "structure",
      "members":
{
        "LicenseArn": {
          "target": "com.amazonaws.licensemanager#Arn",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license. The license must
use the borrow consumption configuration.</p>",
            "smithy.api#required": {}
          }
        },
        "Entitlements": {
          "target": "com.amazonaws.licensemanager#EntitlementDataList",
          "traits": {
            "smithy.api#documentation": "<p>License entitlements. Partial checkouts are not supported.</p>",
            "smithy.api#required": {}
          }
        },
        "DigitalSignatureMethod": {
          "target": "com.amazonaws.licensemanager#DigitalSignatureMethod",
          "traits": {
            "smithy.api#documentation": "<p>Digital signature method. The possible
 value is JSON Web Signature (JWS) algorithm PS384.\n        For more information, see <a
href=\"https://tools.ietf.org/html/rfc7518#section-3.5\">RFC 7518 Digital Signature with RSASSA-PSS</a>.</p>",
            "smithy.api#required": {}
          }
        },
        "NodeId": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Node ID.</p>"
          }
        },
        "CheckoutMetadata": {
          "target": "com.amazonaws.licensemanager#MetadataList",
          "traits": {
            "smithy.api#documentation": "<p>Information about constraints.</p>"
          }
        },
        "ClientToken": {
          "target": "com.amazonaws.licensemanager#ClientToken",
          "traits": {
            "smithy.api#documentation":
 "<p>Unique, case-sensitive identifier that you provide to ensure the idempotency of the request.</p>",
            "smithy.api#required": {}
          }
        }
```

```
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#CheckoutBorrowLicenseResponse": {
        "type": "structure",
        "members": {
          "LicenseArn": {
            "target": "com.amazonaws.licensemanager#Arn",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>"
            }
          },
          "LicenseConsumptionToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>License consumption token.</p>"
            }
          },
          "EntitlementsAllowed":
{
            "target": "com.amazonaws.licensemanager#EntitlementDataList",
            "traits": {
              "smithy.api#documentation": "<p>Allowed license entitlements.</p>"
            }
          },
          "NodeId": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Node ID.</p>"
            }
          },
          "SignedToken": {
            "target": "com.amazonaws.licensemanager#SignedToken",
            "traits": {
              "smithy.api#documentation": "<p>Signed token.</p>"
            }
          },
          "IssuedAt": {
            "target": "com.amazonaws.licensemanager#ISO8601DateTime",
            "traits": {
              "smithy.api#documentation": "<p>Date and time at which the license checkout
is issued.</p>"
            }
          },
          "Expiration": {
            "target": "com.amazonaws.licensemanager#ISO8601DateTime",
```

```
            "traits": {
                "smithy.api#documentation": "<p>Date and time at which the license checkout expires.</p>"
            }
        },
        "CheckoutMetadata": {
            "target": "com.amazonaws.licensemanager#MetadataList",
            "traits": {
                "smithy.api#documentation": "<p>Information about constraints.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#output": {}
    }
},
"com.amazonaws.licensemanager#CheckoutLicense": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanager#CheckoutLicenseRequest"
    },
    "output": {
        "target": "com.amazonaws.licensemanager#CheckoutLicenseResponse"
     },
    "errors": [
        {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
            "target": "com.amazonaws.licensemanager#NoEntitlementsAllowedException"
        },
        {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
            "target": "com.amazonaws.licensemanager#RedirectException"
        },
        {
            "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
        },
        {
            "target":
```

```
"com.amazonaws.licensemanager#ServerInternalException"
            },
            {
               "target": "com.amazonaws.licensemanager#UnsupportedDigitalSignatureMethodException"
            },
            {
               "target": "com.amazonaws.licensemanager#ValidationException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Checks out the specified license.</p>\n        <note>\n            <p>If the account that created the license is the same that is performing the check out, you must\n            specify the account as the beneficiary.</p>\n        </note>"
         }
      },
      "com.amazonaws.licensemanager#CheckoutLicenseRequest": {
         "type": "structure",
         "members": {
            "ProductSKU": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Product SKU.</p>",
                  "smithy.api#required": {}
               }
            },
            "CheckoutType": {
               "target": "com.amazonaws.licensemanager#CheckoutType",
               "traits": {
                  "smithy.api#documentation": "<p>Checkout type.</p>",
                  "smithy.api#required": {}
               }
            },
            "KeyFingerprint": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Key fingerprint identifying the license.</p>",
                  "smithy.api#required": {}
               }
            },
            "Entitlements": {
               "target": "com.amazonaws.licensemanager#EntitlementDataList",
               "traits": {
                  "smithy.api#documentation": "<p>License entitlements.</p>",

      "smithy.api#required": {}
               }
            },
```

```
        "ClientToken": {
          "target": "com.amazonaws.licensemanager#ClientToken",
          "traits": {
            "smithy.api#documentation": "<p>Unique, case-sensitive identifier that you provide to ensure the
idempotency of the request.</p>",
            "smithy.api#required": {}
          }
        },
        "Beneficiary": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>License beneficiary.</p>"
          }
        },
        "NodeId": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Node ID.</p>"
          }
        }
      },
      "traits": {

       "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#CheckoutLicenseResponse": {
      "type": "structure",
      "members": {
        "CheckoutType": {
          "target": "com.amazonaws.licensemanager#CheckoutType",
          "traits": {
            "smithy.api#documentation": "<p>Checkout type.</p>"
          }
        },
        "LicenseConsumptionToken": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>License consumption token.</p>"
          }
        },
        "EntitlementsAllowed": {
          "target": "com.amazonaws.licensemanager#EntitlementDataList",
          "traits": {
            "smithy.api#documentation": "<p>Allowed license entitlements.</p>"
          }
        },
```

```
            "SignedToken": {
              "target": "com.amazonaws.licensemanager#SignedToken",
              "traits": {
                "smithy.api#documentation": "<p>Signed token.</p>"
              }
            },
            "NodeId": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Node ID.</p>"
              }
            },
            "IssuedAt": {
              "target": "com.amazonaws.licensemanager#ISO8601DateTime",
              "traits": {
                "smithy.api#documentation": "<p>Date and time at which the license checkout is issued.</p>"
              }
            },
            "Expiration": {
              "target": "com.amazonaws.licensemanager#ISO8601DateTime",
              "traits": {
                "smithy.api#documentation": "<p>Date and
time at which the license checkout expires.</p>"
              }
            },
            "LicenseArn": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the checkout license.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#output": {}
          }
        },
        "com.amazonaws.licensemanager#CheckoutType": {
          "type": "enum",
          "members": {
            "PROVISIONAL": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "PROVISIONAL"
              }
            },
            "PERPETUAL": {
              "target": "smithy.api#Unit",
              "traits": {
```

```
                "smithy.api#enumValue": "PERPETUAL"
              }
            }
          }
        },
        "com.amazonaws.licensemanager#ClientRequestToken": {
          "type": "string",
          "traits": {
            "smithy.api#length": {
              "min": 1,
              "max": 36
            }
          }
        },
        "com.amazonaws.licensemanager#ClientToken": {
          "type": "string",
          "traits": {
            "smithy.api#length": {
              "min": 0,
              "max": 2048
            },
            "smithy.api#pattern": "^\\S+$"
          }
        },
        "com.amazonaws.licensemanager#ConflictException": {
          "type": "structure",
          "members": {
            "Message": {
              "target": "com.amazonaws.licensemanager#Message"
            }
          },
          "traits": {
            "aws.protocols#awsQueryError": {
              "code": "ConflictException",
              "httpResponseCode":
 409
            },
            "smithy.api#documentation": "<p>There was a conflict processing the request. Try your request
again.</p>",
            "smithy.api#error": "client",
            "smithy.api#httpError": 409
          }
        },
        "com.amazonaws.licensemanager#ConsumedLicenseSummary": {
          "type": "structure",
          "members": {
            "ResourceType": {
              "target": "com.amazonaws.licensemanager#ResourceType",
```

```
            "traits": {
                "smithy.api#documentation": "<p>Resource type of the resource consuming a license.</p>"
            }
        },
        "ConsumedLicenses": {
            "target": "com.amazonaws.licensemanager#BoxLong",
            "traits": {
                "smithy.api#documentation": "<p>Number of licenses consumed by the resource.</p>"
            }
        }
    },

"traits": {
        "smithy.api#documentation": "<p>Details about license consumption.</p>"
    }
  },
  "com.amazonaws.licensemanager#ConsumedLicenseSummaryList": {
    "type": "list",
    "member": {
        "target": "com.amazonaws.licensemanager#ConsumedLicenseSummary"
    }
  },
  "com.amazonaws.licensemanager#ConsumptionConfiguration": {
    "type": "structure",
    "members": {
        "RenewType": {
            "target": "com.amazonaws.licensemanager#RenewType",
            "traits": {
                "smithy.api#documentation": "<p>Renewal frequency.</p>"
            }
        },
        "ProvisionalConfiguration": {
            "target": "com.amazonaws.licensemanager#ProvisionalConfiguration",
            "traits": {
                "smithy.api#documentation": "<p>Details about a provisional configuration.</p>"
             }
        },
        "BorrowConfiguration": {
            "target": "com.amazonaws.licensemanager#BorrowConfiguration",
            "traits": {
                "smithy.api#documentation": "<p>Details about a borrow configuration.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#documentation": "<p>Details about a consumption configuration.</p>"
    }
  },
```

```
    "com.amazonaws.licensemanager#CreateGrant": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#CreateGrantRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#CreateGrantResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target":
 "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Creates a grant for the specified license. A grant shares the use of
 license\n            entitlements with a specific Amazon Web Services account, an organization, or an\n
 organizational unit (OU). For more
  information, see <a href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/granted-
 licenses.html\">Granted licenses in License Manager</a> in the <i>License Manager User Guide</i>.</p>"
        }
    },
    "com.amazonaws.licensemanager#CreateGrantRequest": {
        "type": "structure",
        "members": {
            "ClientToken": {
                "target": "com.amazonaws.licensemanager#ClientToken",
                "traits": {
                    "smithy.api#documentation": "<p>Unique, case-sensitive identifier that you provide to ensure the
 idempotency of the request.</p>",
```

```
            "smithy.api#required": {}
          }
        },
        "GrantName": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Grant name.</p>",
            "smithy.api#required": {}

    }
        },
        "LicenseArn": {
          "target": "com.amazonaws.licensemanager#Arn",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>",
            "smithy.api#required": {}
          }
        },
        "Principals": {
          "target": "com.amazonaws.licensemanager#PrincipalArnList",
          "traits": {
            "smithy.api#documentation": "<p>The grant principals. You can specify one of the following as an
Amazon Resource Name\n      (ARN):</p>\n      <ul>\n      <li>\n      <p>An Amazon Web Services
account, which includes only the account specified.</p>\n      </li>\n      </ul>\n      <ul>\n      <li>\n
  <p>An organizational unit (OU), which includes all accounts in the OU.</p>\n      </li>\n      </ul>\n
<ul>\n
      <li>\n      <p>An organization, which will include all accounts across your organization.</p>\n
</li>\n      </ul>",
            "smithy.api#required": {}
          }
        },
        "HomeRegion": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Home Region of the grant.</p>",
            "smithy.api#required": {}
          }
        },
        "AllowedOperations": {
          "target": "com.amazonaws.licensemanager#AllowedOperationList",
          "traits": {
            "smithy.api#documentation": "<p>Allowed operations for the grant.</p>",
            "smithy.api#required": {}
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
```

```
        }
      },

    "com.amazonaws.licensemanager#CreateGrantResponse": {
        "type": "structure",
        "members": {
          "GrantArn": {
            "target": "com.amazonaws.licensemanager#Arn",
            "traits": {
              "smithy.api#documentation": "<p>Grant ARN.</p>"
            }
          },
          "Status": {
            "target": "com.amazonaws.licensemanager#GrantStatus",
            "traits": {
              "smithy.api#documentation": "<p>Grant status.</p>"
            }
          },
          "Version": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Grant version.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#CreateGrantVersion":
{
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#CreateGrantVersionRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#CreateGrantVersionResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
```

```
            {
               "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
               "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
               "target": "com.amazonaws.licensemanager#ServerInternalException"
             },
            {
               "target": "com.amazonaws.licensemanager#ValidationException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Creates a new version of the specified grant. For more information,
see\n        <a href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/granted-
licenses.html\">Granted licenses in License Manager</a> in the <i>License Manager User Guide</i>.</p>"
         }
      },
      "com.amazonaws.licensemanager#CreateGrantVersionRequest": {
         "type": "structure",
         "members": {
            "ClientToken": {
               "target": "com.amazonaws.licensemanager#ClientToken",
               "traits": {
                  "smithy.api#documentation": "<p>Unique, case-sensitive identifier that you provide to ensure the
idempotency of the request.</p>",

   "smithy.api#required": {}
               }
            },
            "GrantArn": {
               "target": "com.amazonaws.licensemanager#Arn",
               "traits": {
                  "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the grant.</p>",
                  "smithy.api#required": {}
               }
            },
            "GrantName": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Grant name.</p>"
               }
            },
            "AllowedOperations": {
               "target": "com.amazonaws.licensemanager#AllowedOperationList",
               "traits": {
                  "smithy.api#documentation": "<p>Allowed operations for the grant.</p>"
```

```
            }
        },
        "Status": {
            "target": "com.amazonaws.licensemanager#GrantStatus",
            "traits": {
                "smithy.api#documentation": "<p>Grant status.</p>"
            }
        },
        "StatusReason": {
            "target": "com.amazonaws.licensemanager#StatusReasonMessage",
            "traits": {
                "smithy.api#documentation": "<p>Grant status reason.</p>"
            }
        },
        "SourceVersion": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Current version of the grant.</p>"
            }
        },
        "Options": {
            "target": "com.amazonaws.licensemanager#Options",
            "traits": {
                "smithy.api#documentation": "<p>The options specified for the grant.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#input": {}
    }
},
"com.amazonaws.licensemanager#CreateGrantVersionResponse": {
    "type": "structure",
    "members": {
        "GrantArn": {
            "target": "com.amazonaws.licensemanager#Arn",
            "traits": {
                "smithy.api#documentation": "<p>Grant ARN.</p>"
            }
        },
        "Status": {
            "target": "com.amazonaws.licensemanager#GrantStatus",
            "traits": {
                "smithy.api#documentation": "<p>Grant status.</p>"
            }
        },
        "Version": {
            "target": "com.amazonaws.licensemanager#String",
```

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            "traits": {
                "smithy.api#documentation": "<p>New version of the grant.</p>"
            }
        }
      },
      "traits":
{
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanager#CreateLicense": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#CreateLicenseRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#CreateLicenseResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#RedirectException"
         },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
          "target": "com.amazonaws.licensemanager#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Creates a license.</p>"
      }
    },
    "com.amazonaws.licensemanager#CreateLicenseConfiguration": {
      "type": "operation",
      "input": {
```

```
            "target": "com.amazonaws.licensemanager#CreateLicenseConfigurationRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#CreateLicenseConfigurationResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
             },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Creates a license configuration.</p>\n          <p>A license configuration
is an abstraction of a customer license agreement that can be\n          consumed and enforced by License Manager.
Components include specifications for the license\n          type (licensing by instance, socket, CPU, or vCPU),
allowed tenancy (shared tenancy, \n          Dedicated Instance, Dedicated Host, or
 all of these), license affinity  to host (how long a \n          license must be associated with a host), and the number of
licenses purchased and used.</p>"
        }
    },
    "com.amazonaws.licensemanager#CreateLicenseConfigurationRequest": {
        "type": "structure",
        "members": {
            "Name": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Name of the license configuration.</p>",
                    "smithy.api#required": {}
                }
            },
            "Description": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Description of the license configuration.</p>"
```

```
            }
        },
        "LicenseCountingType": {
            "target": "com.amazonaws.licensemanager#LicenseCountingType",
            "traits": {
                "smithy.api#documentation": "<p>Dimension used to track the license inventory.</p>",
                "smithy.api#required": {}
            }
        },
        "LicenseCount": {
            "target": "com.amazonaws.licensemanager#BoxLong",
            "traits": {
                "smithy.api#documentation": "<p>Number of licenses managed by the license configuration.</p>"
            }
        },
        "LicenseCountHardLimit": {
            "target": "com.amazonaws.licensemanager#BoxBoolean",
            "traits": {
                "smithy.api#documentation": "<p>Indicates whether hard or soft license enforcement is used.
Exceeding a hard limit\n        blocks the launch of new instances.</p>"
            }
        },
        "LicenseRules": {
            "target":
 "com.amazonaws.licensemanager#StringList",
            "traits": {
                "smithy.api#documentation": "<p>License rules. The syntax is #name=value (for example,
#allowedTenancy=EC2-DedicatedHost). The available rules \n        vary by dimension, as follows.</p>\n
<ul>\n          <li>\n            <p>\n              <code>Cores</code> dimension: <code>allowedTenancy</code> |\n
          <code>licenseAffinityToHost</code> |\n            <code>maximumCores</code> |
<code>minimumCores</code>\n            </p>\n          </li>\n          <li>\n            <p>\n
<code>Instances</code> dimension: <code>allowedTenancy</code> | \n            <code>maximumCores</code> |
<code>minimumCores</code> |\n            <code>maximumSockets</code> | <code>minimumSockets</code> |\n
          <code>maximumVcpus</code> | <code>minimumVcpus</code>\n            </p>\n          </li>\n
<li>\n
  <p>\n              <code>Sockets</code> dimension: <code>allowedTenancy</code> | \n
<code>licenseAffinityToHost</code> |\n            <code>maximumSockets</code> |
<code>minimumSockets</code>\n            </p>\n          </li>\n          <li>\n            <p>\n
<code>vCPUs</code> dimension: <code>allowedTenancy</code> | \n
<code>honorVcpuOptimization</code> | \n            <code>maximumVcpus</code> |
<code>minimumVcpus</code>\n            </p>\n          </li>\n        </ul>\n        <p>The unit for
<code>licenseAffinityToHost</code> is days and the range is 1 to 180. The possible \n        values for
<code>allowedTenancy</code> are <code>EC2-Default</code>, <code>EC2-DedicatedHost</code>, and \n
<code>EC2-DedicatedInstance</code>. The possible values for <code>honorVcpuOptimization</code> are \n
<code>True</code> and <code>False</code>.</p>"
            }
        },
```

```
  "Tags": {
                "target": "com.amazonaws.licensemanager#TagList",
                "traits": {
                    "smithy.api#documentation": "<p>Tags to add to the license configuration.</p>"
                }
            },
            "DisassociateWhenNotFound": {
                "target": "com.amazonaws.licensemanager#BoxBoolean",
                "traits": {
                    "smithy.api#documentation": "<p>When true, disassociates a resource when software is
uninstalled.</p>"
                }
            },
            "ProductInformationList": {
                "target": "com.amazonaws.licensemanager#ProductInformationList",
                "traits": {
                    "smithy.api#documentation": "<p>Product information.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#CreateLicenseConfigurationResponse":
{
        "type": "structure",
        "members": {
            "LicenseConfigurationArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license configuration.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#CreateLicenseConversionTaskForResource": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#CreateLicenseConversionTaskForResourceRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#CreateLicenseConversionTaskForResourceResponse"
        },
        "errors": [
```

```
            {
               "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
               "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
               "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
               "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
               "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
               "target": "com.amazonaws.licensemanager#ValidationException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Creates a new license conversion task.</p>"
         }
      },
      "com.amazonaws.licensemanager#CreateLicenseConversionTaskForResourceRequest": {
         "type": "structure",
         "members": {
            "ResourceArn": {

               "target": "com.amazonaws.licensemanager#Arn",
               "traits": {
                  "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the resource you are converting
the license type for.</p>",
                  "smithy.api#required": {}
               }
            },
            "SourceLicenseContext": {
               "target": "com.amazonaws.licensemanager#LicenseConversionContext",
               "traits": {
                  "smithy.api#documentation": "<p>Information that identifies the license type you are converting
from. \n\n         For the structure of the source license, see <a href=\"https://docs.aws.amazon.com/license-
manager/latest/userguide/conversion-procedures.html#conversion-cli\">Convert a license type using the CLI </a> in
the <i>License Manager User Guide</i>.</p>",
                  "smithy.api#required": {}
               }
            },
            "DestinationLicenseContext":
{
               "target": "com.amazonaws.licensemanager#LicenseConversionContext",
```

```
            "traits": {
                "smithy.api#documentation": "<p>Information that identifies the license type you are converting to. For the structure of the destination license, see <a href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/conversion-procedures.html#conversion-cli\">Convert a license type using the CLI </a> in the <i>License Manager User Guide</i>.</p>",
                "smithy.api#required": {}
            }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#CreateLicenseConversionTaskForResourceResponse": {
      "type": "structure",
      "members": {
        "LicenseConversionTaskId": {
          "target": "com.amazonaws.licensemanager#LicenseConversionTaskId",

     "traits": {
                "smithy.api#documentation": "<p>The ID of the created license type conversion task.</p>"
            }
        }
      },
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanager#CreateLicenseManagerReportGenerator": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#CreateLicenseManagerReportGeneratorRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#CreateLicenseManagerReportGeneratorResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
         },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
```

```
            },
            {
               "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
               "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
            },
            {
               "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
               "target": "com.amazonaws.licensemanager#ValidationException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Creates a report generator.</p>"
         }
      },
      "com.amazonaws.licensemanager#CreateLicenseManagerReportGeneratorRequest": {
         "type": "structure",
         "members": {
            "ReportGeneratorName":
{
               "target": "com.amazonaws.licensemanager#ReportGeneratorName",
               "traits": {
                  "smithy.api#documentation": "<p>Name of the report generator.</p>",
                  "smithy.api#required": {}
               }
            },
            "Type": {
               "target": "com.amazonaws.licensemanager#ReportTypeList",
               "traits": {
                  "smithy.api#documentation": "<p>Type of reports to generate. The following report types an be
generated:</p>\n          <ul>\n          <li>\n          <p>License configuration report - Reports the number and
details of consumed licenses for a license configuration.</p>\n          </li>\n          <li>\n          <p>Resource
report - Reports the tracked licenses and resource consumption for a license configuration.</p>\n          </li>\n
</ul>",
                  "smithy.api#required": {}

         }
            },
            "ReportContext": {
               "target": "com.amazonaws.licensemanager#ReportContext",
               "traits": {
                  "smithy.api#documentation": "<p>Defines the type of license configuration the report generator
tracks.</p>",
                  "smithy.api#required": {}
               }
```

```
            },
            "ReportFrequency": {
               "target": "com.amazonaws.licensemanager#ReportFrequency",
               "traits": {
                  "smithy.api#documentation": "<p>Frequency by which reports are generated.  Reports can be
generated daily, monthly, or weekly.</p>",
                  "smithy.api#required": {}
               }
            },
            "ClientToken": {
               "target": "com.amazonaws.licensemanager#ClientRequestToken",
               "traits": {
                  "smithy.api#documentation": "<p>Unique,
 case-sensitive identifier that you provide to ensure the idempotency of the request.</p>",
                  "smithy.api#required": {}
               }
            },
            "Description": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Description of the report generator.</p>"
               }
            },
            "Tags": {
               "target": "com.amazonaws.licensemanager#TagList",
               "traits": {
                  "smithy.api#documentation": "<p>Tags to add to the report generator.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#input": {}
         }
      },
      "com.amazonaws.licensemanager#CreateLicenseManagerReportGeneratorResponse": {
         "type": "structure",
         "members": {
            "LicenseManagerReportGeneratorArn":
 {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the new report
generator.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#output": {}
```

```
        }
      },
      "com.amazonaws.licensemanager#CreateLicenseRequest": {
        "type": "structure",
        "members": {
          "LicenseName": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>License name.</p>",
              "smithy.api#required": {}
            }
          },
          "ProductName": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Product
name.</p>",
              "smithy.api#required": {}
            }
          },
          "ProductSKU": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Product SKU.</p>",
              "smithy.api#required": {}
            }
          },
          "Issuer": {
            "target": "com.amazonaws.licensemanager#Issuer",
            "traits": {
              "smithy.api#documentation": "<p>License issuer.</p>",
              "smithy.api#required": {}
            }
          },
          "HomeRegion": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Home Region for the license.</p>",
              "smithy.api#required": {}

  }
          },
          "Validity": {
            "target": "com.amazonaws.licensemanager#DatetimeRange",
            "traits": {
              "smithy.api#documentation": "<p>Date and time range during which the license is valid, in ISO8601-
UTC format.</p>",
              "smithy.api#required": {}
```

```
            }
          },
          "Entitlements": {
            "target": "com.amazonaws.licensemanager#EntitlementList",
            "traits": {
              "smithy.api#documentation": "<p>License entitlements.</p>",
              "smithy.api#required": {}
            }
          },
          "Beneficiary": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>License beneficiary.</p>",
              "smithy.api#required": {}
            }
          },
          "ConsumptionConfiguration": {
            "target": "com.amazonaws.licensemanager#ConsumptionConfiguration",
            "traits": {
              "smithy.api#documentation": "<p>Configuration for consumption of the license. Choose a provisional
configuration for workloads\n          running with continuous connectivity. Choose a borrow configuration for
workloads with offline\n          usage.</p>",
              "smithy.api#required": {}
            }
          },
          "LicenseMetadata": {
            "target": "com.amazonaws.licensemanager#MetadataList",
            "traits": {
              "smithy.api#documentation": "<p>Information about the license.</p>"
            }
          },
          "ClientToken": {
            "target": "com.amazonaws.licensemanager#ClientToken",
            "traits": {
              "smithy.api#documentation":
 "<p>Unique, case-sensitive identifier that you provide to ensure the idempotency of the request.</p>",
              "smithy.api#required": {}
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#CreateLicenseResponse": {
        "type": "structure",
        "members": {
          "LicenseArn": {
```

```
            "target": "com.amazonaws.licensemanager#Arn",
            "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>"
            }
        },
        "Status": {
            "target": "com.amazonaws.licensemanager#LicenseStatus",
            "traits": {
                "smithy.api#documentation": "<p>License status.</p>"
            }
        },
        "Version": {
             "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>License version.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#output": {}
    }
},
"com.amazonaws.licensemanager#CreateLicenseVersion": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanager#CreateLicenseVersionRequest"
    },
    "output": {
        "target": "com.amazonaws.licensemanager#CreateLicenseVersionResponse"
    },
    "errors": [
        {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
            "target": "com.amazonaws.licensemanager#ConflictException"
         },
        {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
            "target": "com.amazonaws.licensemanager#RedirectException"
        },
        {
            "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
```

```
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Creates a new version of the specified license.</p>"
        }
    },
    "com.amazonaws.licensemanager#CreateLicenseVersionRequest": {
        "type": "structure",
        "members": {
            "LicenseArn": {
                "target":
"com.amazonaws.licensemanager#Arn",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>",
                    "smithy.api#required": {}
                }
            },
            "LicenseName": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>License name.</p>",
                    "smithy.api#required": {}
                }
            },
            "ProductName": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Product name.</p>",
                    "smithy.api#required": {}
                }
            },
            "Issuer": {
                "target": "com.amazonaws.licensemanager#Issuer",
                "traits":
{
                    "smithy.api#documentation": "<p>License issuer.</p>",
                    "smithy.api#required": {}
                }
            },
            "HomeRegion": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
```

```
                "smithy.api#documentation": "<p>Home Region of the license.</p>",
                "smithy.api#required": {}
            }
        },
        "Validity": {
            "target": "com.amazonaws.licensemanager#DatetimeRange",
            "traits": {
                "smithy.api#documentation": "<p>Date and time range during which the license is valid, in ISO8601-
UTC format.</p>",
                "smithy.api#required": {}
            }
        },
        "LicenseMetadata": {
            "target": "com.amazonaws.licensemanager#MetadataList",
            "traits": {
                 "smithy.api#documentation": "<p>Information about the license.</p>"
            }
        },
        "Entitlements": {
            "target": "com.amazonaws.licensemanager#EntitlementList",
            "traits": {
                "smithy.api#documentation": "<p>License entitlements.</p>",
                "smithy.api#required": {}
            }
        },
        "ConsumptionConfiguration": {
            "target": "com.amazonaws.licensemanager#ConsumptionConfiguration",
            "traits": {
                "smithy.api#documentation": "<p>Configuration for consumption of the license. Choose a provisional
configuration for workloads\n          running with continuous connectivity. Choose a borrow configuration for
workloads with offline\n          usage.</p>",
                "smithy.api#required": {}
            }
        },

   "Status": {
            "target": "com.amazonaws.licensemanager#LicenseStatus",
            "traits": {
                "smithy.api#documentation": "<p>License status.</p>",
                "smithy.api#required": {}
            }
        },
        "ClientToken": {
            "target": "com.amazonaws.licensemanager#ClientToken",
            "traits": {
                "smithy.api#documentation": "<p>Unique, case-sensitive identifier that you provide to ensure the
idempotency of the request.</p>",
                "smithy.api#required": {}
```

```
            }
          },
          "SourceVersion": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Current version of the license.</p>"
            }
          }
        },
        "traits": {

"smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#CreateLicenseVersionResponse": {
        "type": "structure",
        "members": {
          "LicenseArn": {
            "target": "com.amazonaws.licensemanager#Arn",
            "traits": {
              "smithy.api#documentation": "<p>License ARN.</p>"
            }
          },
          "Version": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>New version of the license.</p>"
            }
          },
          "Status": {
            "target": "com.amazonaws.licensemanager#LicenseStatus",
            "traits": {
              "smithy.api#documentation": "<p>License status.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output":
{}
        }
      },
      "com.amazonaws.licensemanager#CreateToken": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#CreateTokenRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#CreateTokenResponse"
```

```
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#RedirectException"
            },
            {
                "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },

      {
                "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Creates a long-lived token.</p>\n          <p>A refresh token is a JWT token used to get an access token. With an access token,\n          you can call AssumeRoleWithWebIdentity to get role credentials that you can use to \n          call License Manager to manage the specified license.</p>"
        }
    },
    "com.amazonaws.licensemanager#CreateTokenRequest": {
        "type": "structure",
        "members": {
            "LicenseArn": {
                "target": "com.amazonaws.licensemanager#Arn",
                "traits":
{
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license. The ARN is mapped to the aud claim of the\n          JWT token.</p>",
                    "smithy.api#required": {}
                }
            },
            "RoleArns": {
                "target": "com.amazonaws.licensemanager#ArnList",
```

```
            "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the IAM roles to embed in the
token. \n        License Manager does not check whether the roles are in use.</p>"
            }
        },
        "ExpirationInDays": {
            "target": "com.amazonaws.licensemanager#Integer",
            "traits": {
                "smithy.api#documentation": "<p>Token expiration, in days, counted from token creation. The
default is 365 days.</p>"
            }
        },
        "TokenProperties": {
            "target": "com.amazonaws.licensemanager#MaxSize3StringList",
            "traits": {
                "smithy.api#documentation": "<p>Data specified by the caller to be included in the JWT token. The
data is mapped\n        to the amr claim of the JWT token.</p>"
            }
        },
        "ClientToken": {
            "target": "com.amazonaws.licensemanager#ClientToken",
            "traits": {
                "smithy.api#documentation": "<p>Idempotency token, valid for 10 minutes.</p>",
                "smithy.api#required": {}
            }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#CreateTokenResponse": {
      "type": "structure",
      "members": {
        "TokenId": {
            "target": "com.amazonaws.licensemanager#String",

            "traits": {
                "smithy.api#documentation": "<p>Token ID.</p>"
            }
        },
        "TokenType": {
            "target": "com.amazonaws.licensemanager#TokenType",
            "traits": {
                "smithy.api#documentation": "<p>Token type.</p>"
            }
        },
        "Token": {
```

```
            "target": "com.amazonaws.licensemanager#TokenString",
            "traits": {
               "smithy.api#documentation": "<p>Refresh token, encoded as a JWT token.</p>"
            }
         }
      },
      "traits": {
         "smithy.api#output": {}
      }
   },
   "com.amazonaws.licensemanager#DateTime": {
      "type": "timestamp"
   },
   "com.amazonaws.licensemanager#DatetimeRange": {
      "type": "structure",
      "members": {
         "Begin": {
            "target": "com.amazonaws.licensemanager#ISO8601DateTime",
            "traits": {
               "smithy.api#documentation": "<p>Start of the time range.</p>",
               "smithy.api#required": {}
            }
         },
         "End": {
            "target": "com.amazonaws.licensemanager#ISO8601DateTime",
            "traits": {
               "smithy.api#documentation": "<p>End of the time range.</p>"
            }
         }
      },
      "traits": {
         "smithy.api#documentation": "<p>Describes a time range, in ISO8601-UTC format.</p>"
      }
   },
   "com.amazonaws.licensemanager#DeleteGrant": {
      "type": "operation",
      "input": {
         "target": "com.amazonaws.licensemanager#DeleteGrantRequest"
      },
      "output": {
         "target": "com.amazonaws.licensemanager#DeleteGrantResponse"
      },
      "errors": [
         {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
         },
         {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
```

```
            },
            {
               "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
               "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
               "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
               "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
               "target": "com.amazonaws.licensemanager#ValidationException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Deletes
the specified grant.</p>"
         }
      },
      "com.amazonaws.licensemanager#DeleteGrantRequest": {
         "type": "structure",
         "members": {
            "GrantArn": {
               "target": "com.amazonaws.licensemanager#Arn",
               "traits": {
                  "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the grant.</p>",
                  "smithy.api#required": {}
               }
            },
            "StatusReason": {
               "target": "com.amazonaws.licensemanager#StatusReasonMessage",
               "traits": {
                  "smithy.api#documentation": "<p>The Status reason for the delete request.</p>"
               }
            },
            "Version": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Current version of the
grant.</p>",
                  "smithy.api#required": {}
               }
            }
         },
         "traits": {
```

```
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#DeleteGrantResponse": {
        "type": "structure",
        "members": {
            "GrantArn": {
                "target": "com.amazonaws.licensemanager#Arn",
                "traits": {
                    "smithy.api#documentation": "<p>Grant ARN.</p>"
                }
            },
            "Status": {
                "target": "com.amazonaws.licensemanager#GrantStatus",
                "traits": {
                    "smithy.api#documentation": "<p>Grant status.</p>"
                }
            },
            "Version": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation":
"<p>Grant version.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#DeleteLicense": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#DeleteLicenseRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#DeleteLicenseResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#ConflictException"
            },
```

```
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"

},
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#RedirectException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Deletes the specified license.</p>"
        }
    },
    "com.amazonaws.licensemanager#DeleteLicenseConfiguration": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#DeleteLicenseConfigurationRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#DeleteLicenseConfigurationResponse"
        },

    "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
```

```
            "smithy.api#documentation": "<p>Deletes the specified license configuration.</p>\n            <p>You cannot delete a license configuration that is in use.</p>"
        }
    },
    "com.amazonaws.licensemanager#DeleteLicenseConfigurationRequest": {
        "type": "structure",
        "members":
{
            "LicenseConfigurationArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>ID of the license configuration.</p>",
                    "smithy.api#required": {}
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#DeleteLicenseConfigurationResponse": {
        "type": "structure",
        "members": {},
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#DeleteLicenseManagerReportGenerator": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#DeleteLicenseManagerReportGeneratorRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#DeleteLicenseManagerReportGeneratorResponse"
         },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
```

```
            {
               "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
               "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
            },
            {
               "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
               "target": "com.amazonaws.licensemanager#ValidationException"
             }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Deletes the specified report generator.</p>\n          <p>This action deletes the report generator, which stops it from generating future reports.\n          The action cannot be reversed. It has no effect on the previous reports from this generator.</p>"
         }
      },
      "com.amazonaws.licensemanager#DeleteLicenseManagerReportGeneratorRequest": {
         "type": "structure",
         "members": {
            "LicenseManagerReportGeneratorArn": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the report generator to be deleted.</p>",
                  "smithy.api#required": {}
               }
            }
         },
         "traits": {

  "smithy.api#input": {}
         }
      },
      "com.amazonaws.licensemanager#DeleteLicenseManagerReportGeneratorResponse": {
         "type": "structure",
         "members": {},
         "traits": {
            "smithy.api#output": {}
         }
      },
      "com.amazonaws.licensemanager#DeleteLicenseRequest": {
         "type": "structure",
         "members": {
            "LicenseArn": {
               "target": "com.amazonaws.licensemanager#Arn",
```

```
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>",
              "smithy.api#required": {}
            }
          },
          "SourceVersion": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Current version of the license.</p>",
              "smithy.api#required":
{}
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#DeleteLicenseResponse": {
        "type": "structure",
        "members": {
          "Status": {
            "target": "com.amazonaws.licensemanager#LicenseDeletionStatus",
            "traits": {
              "smithy.api#documentation": "<p>License status.</p>"
            }
          },
          "DeletionDate": {
            "target": "com.amazonaws.licensemanager#ISO8601DateTime",
            "traits": {
              "smithy.api#documentation": "<p>Date when the license is deleted.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#DeleteToken": {
        "type": "operation",
         "input": {
          "target": "com.amazonaws.licensemanager#DeleteTokenRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#DeleteTokenResponse"
        },
        "errors": [
          {
```

```
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#RedirectException"
          },
          {
            "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          },

    {
            "target": "com.amazonaws.licensemanager#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Deletes the specified token. Must be called in the license home
Region.</p>"
        }
      },
      "com.amazonaws.licensemanager#DeleteTokenRequest": {
        "type": "structure",
        "members": {
          "TokenId": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token ID.</p>",
              "smithy.api#required": {}
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#DeleteTokenResponse": {
        "type": "structure",
        "members": {},
        "traits": {
          "smithy.api#output": {}
```

```
        }
      },
      "com.amazonaws.licensemanager#DigitalSignatureMethod": {
        "type": "enum",
        "members": {
          "JWT_PS384": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "JWT_PS384"
            }
          }
        }
      },
      "com.amazonaws.licensemanager#Entitlement": {
        "type": "structure",
        "members": {
          "Name": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Entitlement name.</p>",
              "smithy.api#required": {}
            }
          },
          "Value": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Entitlement resource. Use only
if the unit is None.</p>"
            }
          },
          "MaxCount": {
            "target": "com.amazonaws.licensemanager#Long",
            "traits": {
              "smithy.api#documentation": "<p>Maximum entitlement count. Use if the unit is not None.</p>"
            }
          },
          "Overage": {
            "target": "com.amazonaws.licensemanager#BoxBoolean",
            "traits": {
              "smithy.api#documentation": "<p>Indicates whether overages are allowed.</p>"
            }
          },
          "Unit": {
            "target": "com.amazonaws.licensemanager#EntitlementUnit",
            "traits": {
              "smithy.api#documentation": "<p>Entitlement unit.</p>",
              "smithy.api#required": {}
            }
```

```
            },
            "AllowCheckIn": {
               "target":
"com.amazonaws.licensemanager#BoxBoolean",
               "traits": {
                  "smithy.api#documentation": "<p>Indicates whether check-ins are allowed.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#documentation": "<p>Describes a resource entitled for use with a license.</p>"
         }
      },
      "com.amazonaws.licensemanager#EntitlementData": {
         "type": "structure",
         "members": {
            "Name": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Entitlement data name.</p>",
                  "smithy.api#required": {}
               }
            },
            "Value": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Entitlement
data value.</p>"
               }
            },
            "Unit": {
               "target": "com.amazonaws.licensemanager#EntitlementDataUnit",
               "traits": {
                  "smithy.api#documentation": "<p>Entitlement data unit.</p>",
                  "smithy.api#required": {}
               }
            }
         },
         "traits": {
            "smithy.api#documentation": "<p>Data associated with an entitlement resource.</p>"
         }
      },
      "com.amazonaws.licensemanager#EntitlementDataList": {
         "type": "list",
         "member": {
            "target": "com.amazonaws.licensemanager#EntitlementData"
         }
      },
```

```
    "com.amazonaws.licensemanager#EntitlementDataUnit": {
      "type": "enum",
      "members": {
        "COUNT": {
          "target": "smithy.api#Unit",
          "traits": {

"smithy.api#enumValue": "Count"
          }
        },
        "NONE": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "None"
          }
        },
        "SECONDS": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Seconds"
          }
        },
        "MICROSECONDS": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Microseconds"
          }
        },
        "MILLISECONDS": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Milliseconds"
          }
        },
        "BYTES": {
          "target": "smithy.api#Unit",
           "traits": {
            "smithy.api#enumValue": "Bytes"
          }
        },
        "KILOBYTES": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Kilobytes"
          }
        },
        "MEGABYTES": {
          "target": "smithy.api#Unit",
```

```
            "traits": {
                "smithy.api#enumValue": "Megabytes"
            }
        },
        "GIGABYTES": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Gigabytes"
            }
        },
        "TERABYTES": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Terabytes"
            }
        },
        "BITS":
{
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Bits"
            }
        },
        "KILOBITS": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Kilobits"
            }
        },
        "MEGABITS": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Megabits"
            }
        },
        "GIGABITS": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Gigabits"
            }
        },
        "TERABITS": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Terabits"

    }
        },
```

```
"PERCENT": {
   "target": "smithy.api#Unit",
   "traits": {
      "smithy.api#enumValue": "Percent"
   }
},
"BYTES_PER_SECOND": {
   "target": "smithy.api#Unit",
   "traits": {
      "smithy.api#enumValue": "Bytes/Second"
   }
},
"KILOBYTES_PER_SECOND": {
   "target": "smithy.api#Unit",
   "traits": {
      "smithy.api#enumValue": "Kilobytes/Second"
   }
},
"MEGABYTES_PER_SECOND": {
   "target": "smithy.api#Unit",
   "traits": {
      "smithy.api#enumValue": "Megabytes/Second"
   }
},
"GIGABYTES_PER_SECOND": {
   "target": "smithy.api#Unit",
    "traits": {
      "smithy.api#enumValue": "Gigabytes/Second"
   }
},
"TERABYTES_PER_SECOND": {
   "target": "smithy.api#Unit",
   "traits": {
      "smithy.api#enumValue": "Terabytes/Second"
   }
},
"BITS_PER_SECOND": {
   "target": "smithy.api#Unit",
   "traits": {
      "smithy.api#enumValue": "Bits/Second"
   }
},
"KILOBITS_PER_SECOND": {
   "target": "smithy.api#Unit",
   "traits": {
      "smithy.api#enumValue": "Kilobits/Second"
   }
},
```

```
            "MEGABITS_PER_SECOND": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue":
"Megabits/Second"
               }
            },
            "GIGABITS_PER_SECOND": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "Gigabits/Second"
               }
            },
            "TERABITS_PER_SECOND": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "Terabits/Second"
               }
            },
            "COUNT_PER_SECOND": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "Count/Second"
               }
            }
         }
      },
      "com.amazonaws.licensemanager#EntitlementList": {
         "type": "list",
         "member": {
            "target": "com.amazonaws.licensemanager#Entitlement"
         }
      },
      "com.amazonaws.licensemanager#EntitlementNotAllowedException":
{
         "type": "structure",
         "members": {
            "Message": {
               "target": "com.amazonaws.licensemanager#Message"
            }
         },
         "traits": {
            "smithy.api#documentation": "<p>The entitlement is not allowed.</p>",
            "smithy.api#error": "client",
            "smithy.api#httpError": 400
         }
      },
      "com.amazonaws.licensemanager#EntitlementUnit": {
```

```
        "type": "enum",
        "members": {
          "COUNT": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "Count"
            }
          },
          "NONE": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "None"
            }
          },
          "SECONDS":
{
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "Seconds"
            }
          },
          "MICROSECONDS": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "Microseconds"
            }
          },
          "MILLISECONDS": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "Milliseconds"
            }
          },
          "BYTES": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "Bytes"
            }
          },
          "KILOBYTES": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "Kilobytes"
             }
          },
          "MEGABYTES": {
            "target": "smithy.api#Unit",
            "traits": {
```

```
        "smithy.api#enumValue": "Megabytes"
      }
    },
    "GIGABYTES": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "Gigabytes"
      }
    },
    "TERABYTES": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "Terabytes"
      }
    },
    "BITS": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "Bits"
      }
    },
    "KILOBITS": {
      "target": "smithy.api#Unit",
      "traits": {

       "smithy.api#enumValue": "Kilobits"
      }
    },
    "MEGABITS": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "Megabits"
      }
    },
    "GIGABITS": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "Gigabits"
      }
    },
    "TERABITS": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "Terabits"
      }
    },
    "PERCENT": {
      "target": "smithy.api#Unit",
```

```
            "traits": {
                "smithy.api#enumValue": "Percent"
            }
        },
        "BYTES_PER_SECOND": {
            "target":
"smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Bytes/Second"
            }
        },
        "KILOBYTES_PER_SECOND": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Kilobytes/Second"
            }
        },
        "MEGABYTES_PER_SECOND": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Megabytes/Second"
            }
        },
        "GIGABYTES_PER_SECOND": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Gigabytes/Second"
            }
        },
        "TERABYTES_PER_SECOND": {
            "target": "smithy.api#Unit",
            "traits": {

"smithy.api#enumValue": "Terabytes/Second"
            }
        },
        "BITS_PER_SECOND": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Bits/Second"
            }
        },
        "KILOBITS_PER_SECOND": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Kilobits/Second"
            }
        },
```

```
      "MEGABITS_PER_SECOND": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "Megabits/Second"
        }
      },
      "GIGABITS_PER_SECOND": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "Gigabits/Second"
        }
      },

  "TERABITS_PER_SECOND": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "Terabits/Second"
        }
      },
      "COUNT_PER_SECOND": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "Count/Second"
        }
      }
    }
},
"com.amazonaws.licensemanager#EntitlementUsage": {
    "type": "structure",
    "members": {
      "Name": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>Entitlement usage name.</p>",
          "smithy.api#required": {}
        }
      },
      "ConsumedValue": {
        "target": "com.amazonaws.licensemanager#String",

      "traits": {
          "smithy.api#documentation": "<p>Resource usage consumed.</p>",
          "smithy.api#required": {}
        }
      },
      "MaxCount": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
```

```
            "smithy.api#documentation": "<p>Maximum entitlement usage count.</p>"
          }
        },
        "Unit": {
          "target": "com.amazonaws.licensemanager#EntitlementDataUnit",
          "traits": {
            "smithy.api#documentation": "<p>Entitlement usage unit.</p>",
            "smithy.api#required": {}
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>Usage associated with an entitlement resource.</p>"
      }
    },
    "com.amazonaws.licensemanager#EntitlementUsageList":
{
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanager#EntitlementUsage"
      }
    },
    "com.amazonaws.licensemanager#ExtendLicenseConsumption": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#ExtendLicenseConsumptionRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#ExtendLicenseConsumptionResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
         },
        {
          "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
```

```
            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Extends the expiration date for license consumption.</p>"
        }
    },
    "com.amazonaws.licensemanager#ExtendLicenseConsumptionRequest": {
        "type": "structure",
        "members": {
            "LicenseConsumptionToken": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>License consumption token.</p>",
                    "smithy.api#required": {}

    }
            },
            "DryRun": {
                "target": "com.amazonaws.licensemanager#Boolean",
                "traits": {
                    "smithy.api#default": false,
                    "smithy.api#documentation": "<p>Checks whether you have the required permissions for the action, without actually making the request. Provides an error response if you do not have the required permissions.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#ExtendLicenseConsumptionResponse": {
        "type": "structure",
        "members": {
            "LicenseConsumptionToken": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>License consumption token.</p>"
                }
            },

            "Expiration": {
                "target": "com.amazonaws.licensemanager#ISO8601DateTime",
                "traits": {
                    "smithy.api#documentation": "<p>Date and time at which the license consumption expires.</p>"
                }
```

```
            }
          },
          "traits": {
            "smithy.api#output": {}
          }
        },
        "com.amazonaws.licensemanager#FailedDependencyException": {
          "type": "structure",
          "members": {
            "Message": {
              "target": "com.amazonaws.licensemanager#Message"
            },
            "ErrorCode": {
              "target": "com.amazonaws.licensemanager#String"
            }
          },
          "traits": {
            "aws.protocols#awsQueryError": {
              "code": "FailedDependency",
              "httpResponseCode": 424
            },
            "smithy.api#documentation":
 "<p>A dependency required to run the API is missing.</p>",
            "smithy.api#error": "client",
            "smithy.api#httpError": 424
          }
        },
        "com.amazonaws.licensemanager#Filter": {
          "type": "structure",
          "members": {
            "Name": {
              "target": "com.amazonaws.licensemanager#FilterName",
              "traits": {
                "smithy.api#documentation": "<p>Name of the filter. Filter names are case-sensitive.</p>"
              }
            },
            "Values": {
              "target": "com.amazonaws.licensemanager#FilterValues",
              "traits": {
                "smithy.api#documentation": "<p>The value of the filter, which is case-sensitive. You can only
specify one value for the filter.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>A filter
 name and value pair that is used to return more specific results from a\n          describe operation. Filters can be used
to match a set of resources by specific criteria,\n          such as tags, attributes, or IDs.</p>"
```

```
    }
  },
  "com.amazonaws.licensemanager#FilterLimitExceededException": {
    "type": "structure",
    "members": {
      "Message": {
        "target": "com.amazonaws.licensemanager#Message"
      }
    },
    "traits": {
      "aws.protocols#awsQueryError": {
        "code": "FilterLimitExceeded",
        "httpResponseCode": 400
      },
      "smithy.api#documentation": "<p>The request uses too many filters or too many filter values.</p>",
      "smithy.api#error": "client",
      "smithy.api#httpError": 400
    }
  },
  "com.amazonaws.licensemanager#FilterList": {
    "type": "list",
     "member": {
      "target": "com.amazonaws.licensemanager#Filter"
    }
  },
  "com.amazonaws.licensemanager#FilterName": {
    "type": "string"
  },
  "com.amazonaws.licensemanager#FilterValue": {
    "type": "string"
  },
  "com.amazonaws.licensemanager#FilterValues": {
    "type": "list",
    "member": {
      "target": "com.amazonaws.licensemanager#FilterValue",
      "traits": {
        "smithy.api#xmlName": "item"
      }
    }
  },
  "com.amazonaws.licensemanager#Filters": {
    "type": "list",
    "member": {
      "target": "com.amazonaws.licensemanager#Filter",
      "traits": {
        "smithy.api#xmlName": "item"
      }
    }
```

```
    },
    "com.amazonaws.licensemanager#GetAccessToken": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#GetAccessTokenRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#GetAccessTokenResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
          "target": "com.amazonaws.licensemanager#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Gets a temporary access token to use with
AssumeRoleWithWebIdentity. Access
 tokens\n        are valid for one hour.</p>"
      }
    },
    "com.amazonaws.licensemanager#GetAccessTokenRequest": {
      "type": "structure",
      "members": {
        "Token": {
          "target": "com.amazonaws.licensemanager#TokenString",
          "traits": {
            "smithy.api#documentation": "<p>Refresh token, encoded as a JWT token.</p>",
            "smithy.api#required": {}
          }
        },
        "TokenProperties": {
          "target": "com.amazonaws.licensemanager#MaxSize3StringList",
          "traits": {
            "smithy.api#documentation": "<p>Token properties to validate against those present in the JWT
token.</p>"
          }
```

```
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#GetAccessTokenResponse":
{
        "type": "structure",
        "members": {
            "AccessToken": {
                "target": "com.amazonaws.licensemanager#TokenString",
                "traits": {
                    "smithy.api#documentation": "<p>Temporary access token.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#GetGrant": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#GetGrantRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#GetGrantResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"

      },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
```

```
        },
        {
            "target": "com.amazonaws.licensemanager#ValidationException"
        }
    ],
    "traits": {
        "smithy.api#documentation": "<p>Gets detailed information about the specified grant.</p>"
    }
},
"com.amazonaws.licensemanager#GetGrantRequest": {
    "type": "structure",
    "members": {
        "GrantArn": {
            "target": "com.amazonaws.licensemanager#Arn",
             "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the grant.</p>",
                "smithy.api#required": {}
            }
        },
        "Version": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Grant version.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#input": {}
    }
},
"com.amazonaws.licensemanager#GetGrantResponse": {
    "type": "structure",
    "members": {
        "Grant": {
            "target": "com.amazonaws.licensemanager#Grant",
            "traits": {
                "smithy.api#documentation": "<p>Grant details.</p>"
            }
        }
    },
    "traits": {

"smithy.api#output": {}
    }
},
"com.amazonaws.licensemanager#GetLicense": {
    "type": "operation",
    "input": {
```

```
      "target": "com.amazonaws.licensemanager#GetLicenseRequest"
    },
    "output": {
      "target": "com.amazonaws.licensemanager#GetLicenseResponse"
    },
    "errors": [
      {
        "target": "com.amazonaws.licensemanager#AccessDeniedException"
      },
      {
        "target": "com.amazonaws.licensemanager#AuthorizationException"
      },
      {
        "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
      },
      {
        "target": "com.amazonaws.licensemanager#RateLimitExceededException"
      },
      {
        "target": "com.amazonaws.licensemanager#ServerInternalException"

 },
      {
        "target": "com.amazonaws.licensemanager#ValidationException"
      }
    ],
    "traits": {
      "smithy.api#documentation": "<p>Gets detailed information about the specified license.</p>"
    }
  },
  "com.amazonaws.licensemanager#GetLicenseConfiguration": {
    "type": "operation",
    "input": {
      "target": "com.amazonaws.licensemanager#GetLicenseConfigurationRequest"
    },
    "output": {
      "target": "com.amazonaws.licensemanager#GetLicenseConfigurationResponse"
    },
    "errors": [
      {
        "target": "com.amazonaws.licensemanager#AccessDeniedException"
      },
      {
        "target": "com.amazonaws.licensemanager#AuthorizationException"
      },
      {
        "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
```

```
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Gets detailed information about the specified license
configuration.</p>"
        }
    },
    "com.amazonaws.licensemanager#GetLicenseConfigurationRequest": {
        "type": "structure",
        "members": {
            "LicenseConfigurationArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license
configuration.</p>",
                    "smithy.api#required": {}
                }
            }
        },
        "traits":
{
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#GetLicenseConfigurationResponse": {
        "type": "structure",
        "members": {
            "LicenseConfigurationId": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Unique ID for the license configuration.</p>"
                }
            },
            "LicenseConfigurationArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license configuration.</p>"
                }
            },
            "Name": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
```

```
            "smithy.api#documentation": "<p>Name of the license configuration.</p>"
          }
        },
        "Description": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Description of the license configuration.</p>"
          }
        },
        "LicenseCountingType": {
          "target": "com.amazonaws.licensemanager#LicenseCountingType",
          "traits": {
            "smithy.api#documentation": "<p>Dimension for which the licenses are counted.</p>"
          }
        },
        "LicenseRules": {
          "target": "com.amazonaws.licensemanager#StringList",
          "traits": {
            "smithy.api#documentation": "<p>License rules.</p>"
          }
        },
        "LicenseCount": {
          "target": "com.amazonaws.licensemanager#BoxLong",

          "traits": {
            "smithy.api#documentation": "<p>Number of available licenses.</p>"
          }
        },
        "LicenseCountHardLimit": {
          "target": "com.amazonaws.licensemanager#BoxBoolean",
          "traits": {
            "smithy.api#documentation": "<p>Sets the number of available licenses as a hard limit.</p>"
          }
        },
        "ConsumedLicenses": {
          "target": "com.amazonaws.licensemanager#BoxLong",
          "traits": {
            "smithy.api#documentation": "<p>Number of licenses assigned to resources.</p>"
          }
        },
        "Status": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>License configuration status.</p>"
          }

      },
        "OwnerAccountId": {
```

```
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Account ID of the owner of the license configuration.</p>"
            }
          },
          "ConsumedLicenseSummaryList": {
            "target": "com.amazonaws.licensemanager#ConsumedLicenseSummaryList",
            "traits": {
              "smithy.api#documentation": "<p>Summaries of the licenses consumed by resources.</p>"
            }
          },
          "ManagedResourceSummaryList": {
            "target": "com.amazonaws.licensemanager#ManagedResourceSummaryList",
            "traits": {
              "smithy.api#documentation": "<p>Summaries of the managed resources.</p>"
            }
          },
          "Tags": {
            "target": "com.amazonaws.licensemanager#TagList",
             "traits": {
              "smithy.api#documentation": "<p>Tags for the license configuration.</p>"
            }
          },
          "ProductInformationList": {
            "target": "com.amazonaws.licensemanager#ProductInformationList",
            "traits": {
              "smithy.api#documentation": "<p>Product information.</p>"
            }
          },
          "AutomatedDiscoveryInformation": {
            "target": "com.amazonaws.licensemanager#AutomatedDiscoveryInformation",
            "traits": {
              "smithy.api#documentation": "<p>Automated discovery information.</p>"
            }
          },
          "DisassociateWhenNotFound": {
            "target": "com.amazonaws.licensemanager#BoxBoolean",
            "traits": {
              "smithy.api#documentation": "<p>When
true, disassociates a resource when software is uninstalled.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#GetLicenseConversionTask": {
```

```
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#GetLicenseConversionTaskRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#GetLicenseConversionTaskResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {

 "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Gets information about the specified license type conversion task.</p>"
        }
    },
    "com.amazonaws.licensemanager#GetLicenseConversionTaskRequest": {
        "type": "structure",
        "members": {
            "LicenseConversionTaskId": {
                "target": "com.amazonaws.licensemanager#LicenseConversionTaskId",
                "traits": {
                    "smithy.api#documentation": "<p>ID of the license type conversion task to retrieve information
on.</p>",
                    "smithy.api#required": {}
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#GetLicenseConversionTaskResponse": {
        "type": "structure",
        "members": {
```

```
            "LicenseConversionTaskId": {
               "target": "com.amazonaws.licensemanager#LicenseConversionTaskId",
               "traits": {
                  "smithy.api#documentation": "<p>ID of the license type conversion task.</p>"
               }
            },
            "ResourceArn": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Amazon Resource Names (ARN) of the resources the license
conversion task is associated with.</p>"
               }
            },
            "SourceLicenseContext": {
               "target": "com.amazonaws.licensemanager#LicenseConversionContext",
               "traits": {
                  "smithy.api#documentation": "<p>Information
 about the license type converted from.</p>"
               }
            },
            "DestinationLicenseContext": {
               "target": "com.amazonaws.licensemanager#LicenseConversionContext",
               "traits": {
                  "smithy.api#documentation": "<p>Information about the license type converted to.</p>"
               }
            },
            "StatusMessage": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>The status message for the conversion task.</p>"
               }
            },
            "Status": {
               "target": "com.amazonaws.licensemanager#LicenseConversionTaskStatus",
               "traits": {
                  "smithy.api#documentation": "<p>Status of the license type conversion task.</p>"
               }
            },

  "StartTime": {
               "target": "com.amazonaws.licensemanager#DateTime",
               "traits": {
                  "smithy.api#documentation": "<p>Time at which the license type conversion task was started .</p>"
               }
            },
            "LicenseConversionTime": {
               "target": "com.amazonaws.licensemanager#DateTime",
               "traits": {
```

```
                "smithy.api#documentation": "<p>Amount of time to complete the license type conversion.</p>"
              }
            },
            "EndTime": {
              "target": "com.amazonaws.licensemanager#DateTime",
              "traits": {
                "smithy.api#documentation": "<p>Time at which the license type conversion task was
completed.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#output": {}
          }
        },
        "com.amazonaws.licensemanager#GetLicenseManagerReportGenerator":
{
          "type": "operation",
          "input": {
            "target": "com.amazonaws.licensemanager#GetLicenseManagerReportGeneratorRequest"
          },
          "output": {
            "target": "com.amazonaws.licensemanager#GetLicenseManagerReportGeneratorResponse"
          },
          "errors": [
            {
              "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
              "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
              "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
              "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
              "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"

          },
            {
              "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
            },
            {
              "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
```

```
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Gets information about the specified report generator.</p>"
        }
    },
    "com.amazonaws.licensemanager#GetLicenseManagerReportGeneratorRequest": {
        "type": "structure",
        "members": {
            "LicenseManagerReportGeneratorArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the report generator.</p>",
                    "smithy.api#required":
{}
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#GetLicenseManagerReportGeneratorResponse": {
        "type": "structure",
        "members": {
            "ReportGenerator": {
                "target": "com.amazonaws.licensemanager#ReportGenerator",
                "traits": {
                    "smithy.api#documentation": "<p>A report generator that creates periodic reports about your license
configurations.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#GetLicenseRequest": {
        "type": "structure",
        "members": {
            "LicenseArn": {
                "target": "com.amazonaws.licensemanager#Arn",
                "traits": {

 "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>",
                    "smithy.api#required": {}
                }
```

```
        },
        "Version": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>License version.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#GetLicenseResponse": {
      "type": "structure",
      "members": {
        "License": {
          "target": "com.amazonaws.licensemanager#License",
          "traits": {
            "smithy.api#documentation": "<p>License details.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#output": {}
      }
    },

  "com.amazonaws.licensemanager#GetLicenseUsage": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#GetLicenseUsageRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#GetLicenseUsageResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
```

```
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {

  "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Gets detailed information about the usage of the specified license.</p>"
        }
    },
    "com.amazonaws.licensemanager#GetLicenseUsageRequest": {
        "type": "structure",
        "members": {
            "LicenseArn": {
                "target": "com.amazonaws.licensemanager#Arn",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>",
                    "smithy.api#required": {}
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#GetLicenseUsageResponse": {
        "type": "structure",
        "members": {
            "LicenseUsage": {
                "target":
"com.amazonaws.licensemanager#LicenseUsage",
                "traits": {
                    "smithy.api#documentation": "<p>License usage details.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#GetServiceSettings": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#GetServiceSettingsRequest"
        },
        "output": {
```

```
            "target": "com.amazonaws.licensemanager#GetServiceSettingsResponse"
          },
          "errors": [
            {
              "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
              "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
              "target": "com.amazonaws.licensemanager#RateLimitExceededException"
             },
            {
              "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Gets the License Manager settings for the current Region.</p>"
          }
        },
        "com.amazonaws.licensemanager#GetServiceSettingsRequest": {
          "type": "structure",
          "members": {},
          "traits": {
            "smithy.api#input": {}
          }
        },
        "com.amazonaws.licensemanager#GetServiceSettingsResponse": {
          "type": "structure",
          "members": {
            "S3BucketArn": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Regional S3 bucket path for storing reports, license trail event data,
discovery data,\n         and so on.</p>"

  }
            },
            "SnsTopicArn": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>SNS topic configured to receive notifications from License
Manager.</p>"
              }
            },
            "OrganizationConfiguration": {
              "target": "com.amazonaws.licensemanager#OrganizationConfiguration",
              "traits": {
```

```
                "smithy.api#documentation": "<p>Indicates whether Organizations is integrated with License Manager for\n        cross-account discovery.</p>"
              }
            },
            "EnableCrossAccountsDiscovery": {
              "target": "com.amazonaws.licensemanager#BoxBoolean",
              "traits": {
                "smithy.api#documentation": "<p>Indicates whether cross-account discovery is enabled.</p>"
              }

          },
            "LicenseManagerResourceShareArn": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the resource share. The License Manager management account \n        provides member accounts with access to this share.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#output": {}
          }
        },
        "com.amazonaws.licensemanager#Grant": {
          "type": "structure",
          "members": {
            "GrantArn": {
              "target": "com.amazonaws.licensemanager#Arn",
              "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the grant.</p>",
                "smithy.api#required": {}
              }
            },
            "GrantName": {

   "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Grant name.</p>",
                "smithy.api#required": {}
              }
            },
            "ParentArn": {
              "target": "com.amazonaws.licensemanager#Arn",
              "traits": {
                "smithy.api#documentation": "<p>Parent ARN.</p>",
                "smithy.api#required": {}
              }
            },
```

```
        "LicenseArn": {
          "target": "com.amazonaws.licensemanager#Arn",
          "traits": {
            "smithy.api#documentation": "<p>License ARN.</p>",
            "smithy.api#required": {}
          }
        },
        "GranteePrincipalArn": {
          "target": "com.amazonaws.licensemanager#Arn",
          "traits": {

"smithy.api#documentation": "<p>The grantee principal ARN.</p>",
            "smithy.api#required": {}
          }
        },
        "HomeRegion": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Home Region of the grant.</p>",
            "smithy.api#required": {}
          }
        },
        "GrantStatus": {
          "target": "com.amazonaws.licensemanager#GrantStatus",
          "traits": {
            "smithy.api#documentation": "<p>Grant status.</p>",
            "smithy.api#required": {}
          }
        },
        "StatusReason": {
          "target": "com.amazonaws.licensemanager#StatusReasonMessage",
          "traits": {
            "smithy.api#documentation": "<p>Grant status reason.</p>"
           }
        },
        "Version": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Grant version.</p>",
            "smithy.api#required": {}
          }
        },
        "GrantedOperations": {
          "target": "com.amazonaws.licensemanager#AllowedOperationList",
          "traits": {
            "smithy.api#documentation": "<p>Granted operations.</p>",
            "smithy.api#required": {}
          }
```

```
            },
            "Options": {
               "target": "com.amazonaws.licensemanager#Options",
               "traits": {
                  "smithy.api#documentation": "<p>The options specified for the grant.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#documentation":
"<p>Describes a grant.</p>"
         }
      },
      "com.amazonaws.licensemanager#GrantList": {
         "type": "list",
         "member": {
            "target": "com.amazonaws.licensemanager#Grant"
         }
      },
      "com.amazonaws.licensemanager#GrantStatus": {
         "type": "enum",
         "members": {
            "PENDING_WORKFLOW": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "PENDING_WORKFLOW"
               }
            },
            "PENDING_ACCEPT": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "PENDING_ACCEPT"
               }
            },
            "REJECTED": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "REJECTED"

            }
            },
            "ACTIVE": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "ACTIVE"
               }
            },
            "FAILED_WORKFLOW": {
```

```
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "FAILED_WORKFLOW"
            }
          },
          "DELETED": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "DELETED"
            }
          },
          "PENDING_DELETE": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "PENDING_DELETE"
            }
          },
          "DISABLED": {
            "target": "smithy.api#Unit",
            "traits":
{
              "smithy.api#enumValue": "DISABLED"
            }
          },
          "WORKFLOW_COMPLETED": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "WORKFLOW_COMPLETED"
            }
          }
        }
      },
      "com.amazonaws.licensemanager#GrantedLicense": {
        "type": "structure",
        "members": {
          "LicenseArn": {
            "target": "com.amazonaws.licensemanager#Arn",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>"
            }
          },
          "LicenseName": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>License name.</p>"
            }
```

```
  },
        "ProductName": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Product name.</p>"
          }
        },
        "ProductSKU": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Product SKU.</p>"
          }
        },
        "Issuer": {
          "target": "com.amazonaws.licensemanager#IssuerDetails",
          "traits": {
            "smithy.api#documentation": "<p>Granted license issuer.</p>"
          }
        },
        "HomeRegion": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Home Region of the granted license.</p>"

         }
        },
        "Status": {
          "target": "com.amazonaws.licensemanager#LicenseStatus",
          "traits": {
            "smithy.api#documentation": "<p>Granted license status.</p>"
          }
        },
        "Validity": {
          "target": "com.amazonaws.licensemanager#DatetimeRange",
          "traits": {
            "smithy.api#documentation": "<p>Date and time range during which the granted license is valid, in
ISO8601-UTC format.</p>"
          }
        },
        "Beneficiary": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Granted license beneficiary.</p>"
          }
        },
        "Entitlements": {
          "target": "com.amazonaws.licensemanager#EntitlementList",
```

```
            "traits": {
              "smithy.api#documentation": "<p>License entitlements.</p>"
            }
          },
          "ConsumptionConfiguration": {
            "target": "com.amazonaws.licensemanager#ConsumptionConfiguration",
            "traits": {
              "smithy.api#documentation": "<p>Configuration for consumption of the license.</p>"
            }
          },
          "LicenseMetadata": {
            "target": "com.amazonaws.licensemanager#MetadataList",
            "traits": {
              "smithy.api#documentation": "<p>Granted license metadata.</p>"
            }
          },
          "CreateTime": {
            "target": "com.amazonaws.licensemanager#ISO8601DateTime",
            "traits": {
              "smithy.api#documentation": "<p>Creation time of the granted license.</p>"

}
          },
          "Version": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Version of the granted license.</p>"
            }
          },
          "ReceivedMetadata": {
            "target": "com.amazonaws.licensemanager#ReceivedMetadata",
            "traits": {
              "smithy.api#documentation": "<p>Granted license received metadata.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Describes a license that is granted to a grantee.</p>"
        }
      },
      "com.amazonaws.licensemanager#GrantedLicenseList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#GrantedLicense"
        }
      },
      "com.amazonaws.licensemanager#ISO8601DateTime":
```

```
{
        "type": "string",
        "traits": {
          "smithy.api#length": {
            "min": 0,
            "max": 50
          },
          "smithy.api#pattern": "^(-?(?:[1-9][0-9]*)?[0-9]{4})-(1[0-2]|0[1-9])-(3[0-1]|0[1-9]|[1-2][0-9])T(2[0-3]|[0-
1][0-9]):([0-5][0-9]):([0-5][0-9])(\\.[0-9]+)?(Z|[+-](?:2[ 0-3]|[0-1][0-9]):[0-5][0-9])+$"
        }
      },
      "com.amazonaws.licensemanager#Integer": {
        "type": "integer"
      },
      "com.amazonaws.licensemanager#InvalidParameterValueException": {
        "type": "structure",
        "members": {
          "Message": {
            "target": "com.amazonaws.licensemanager#Message"
          }
        },
        "traits": {
          "aws.protocols#awsQueryError": {
            "code": "InvalidParameterValueProvided",
            "httpResponseCode": 400
          },
          "smithy.api#documentation":
 "<p>One or more parameter values are not valid.</p>",
          "smithy.api#error": "client",
          "smithy.api#httpError": 400
        }
      },
      "com.amazonaws.licensemanager#InvalidResourceStateException": {
        "type": "structure",
        "members": {
          "Message": {
            "target": "com.amazonaws.licensemanager#Message"
          }
        },
        "traits": {
          "aws.protocols#awsQueryError": {
            "code": "InvalidResourceState",
            "httpResponseCode": 400
          },
          "smithy.api#documentation": "<p>License Manager cannot allocate a license to a resource because of its
state. </p>\n          <p>For example, you cannot allocate a license to an instance in the process of shutting\n
down.</p>",
          "smithy.api#error": "client",
```

```
        "smithy.api#httpError": 400
      }
    },

    "com.amazonaws.licensemanager#InventoryFilter": {
      "type": "structure",
      "members": {
        "Name": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Name of the filter.</p>",
            "smithy.api#required": {}
          }
        },
        "Condition": {
          "target": "com.amazonaws.licensemanager#InventoryFilterCondition",
          "traits": {
            "smithy.api#documentation": "<p>Condition of the filter.</p>",
            "smithy.api#required": {}
          }
        },
        "Value": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Value of the filter.</p>"
          }
        }

    },
      "traits": {
        "smithy.api#documentation": "<p>An inventory filter.</p>"
      }
    },
    "com.amazonaws.licensemanager#InventoryFilterCondition": {
      "type": "enum",
      "members": {
        "EQUALS": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "EQUALS"
          }
        },
        "NOT_EQUALS": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "NOT_EQUALS"
          }
        },
```

```
            "BEGINS_WITH": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "BEGINS_WITH"
              }
            },
            "CONTAINS": {
              "target": "smithy.api#Unit",
              "traits": {
                 "smithy.api#enumValue": "CONTAINS"
              }
            }
          }
        },
        "com.amazonaws.licensemanager#InventoryFilterList": {
          "type": "list",
          "member": {
            "target": "com.amazonaws.licensemanager#InventoryFilter"
          }
        },
        "com.amazonaws.licensemanager#Issuer": {
          "type": "structure",
          "members": {
            "Name": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Issuer name.</p>",
                "smithy.api#required": {}
              }
            },
            "SignKey": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Asymmetric KMS key from Key Management Service. The KMS
key must have a key usage
 of sign and verify, \n        and support the RSASSA-PSS SHA-256 signing algorithm.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>Details about the issuer of a license.</p>"
          }
        },
        "com.amazonaws.licensemanager#IssuerDetails": {
          "type": "structure",
          "members": {
            "Name": {
              "target": "com.amazonaws.licensemanager#String",
```

```
            "traits": {
              "smithy.api#documentation": "<p>Issuer name.</p>"
            }
          },
          "SignKey": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Asymmetric KMS key from Key Management Service. The KMS
key must have a key usage of sign and verify, \n        and support the RSASSA-PSS SHA-256 signing
algorithm.</p>"
             }
          },
          "KeyFingerprint": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Issuer key fingerprint.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Details associated with the issuer of a license.</p>"
        }
      },
      "com.amazonaws.licensemanager#License": {
        "type": "structure",
        "members": {
          "LicenseArn": {
            "target": "com.amazonaws.licensemanager#Arn",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>"
            }
          },
          "LicenseName": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {

           "smithy.api#documentation": "<p>License name.</p>"
            }
          },
          "ProductName": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Product name.</p>"
            }
          },
          "ProductSKU": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
```

```
            "smithy.api#documentation": "<p>Product SKU.</p>"
          }
        },
        "Issuer": {
          "target": "com.amazonaws.licensemanager#IssuerDetails",
          "traits": {
            "smithy.api#documentation": "<p>License issuer.</p>"
          }
        },
        "HomeRegion": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {

        "smithy.api#documentation": "<p>Home Region of the license.</p>"
          }
        },
        "Status": {
          "target": "com.amazonaws.licensemanager#LicenseStatus",
          "traits": {
            "smithy.api#documentation": "<p>License status.</p>"
          }
        },
        "Validity": {
          "target": "com.amazonaws.licensemanager#DatetimeRange",
          "traits": {
            "smithy.api#documentation": "<p>Date and time range during which the license is valid, in ISO8601-
UTC format.</p>"
          }
        },
        "Beneficiary": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>License beneficiary.</p>"
          }
        },
        "Entitlements": {

   "target": "com.amazonaws.licensemanager#EntitlementList",
          "traits": {
            "smithy.api#documentation": "<p>License entitlements.</p>"
          }
        },
        "ConsumptionConfiguration": {
          "target": "com.amazonaws.licensemanager#ConsumptionConfiguration",
          "traits": {
            "smithy.api#documentation": "<p>Configuration for consumption of the license.</p>"
          }
        },
```

```
            "LicenseMetadata": {
              "target": "com.amazonaws.licensemanager#MetadataList",
              "traits": {
                "smithy.api#documentation": "<p>License metadata.</p>"
              }
            },
            "CreateTime": {
              "target": "com.amazonaws.licensemanager#ISO8601DateTime",
              "traits": {
                "smithy.api#documentation": "<p>License
creation time.</p>"
              }
            },
            "Version": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>License version.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>Software license that is managed in License Manager.</p>"
          }
        },
        "com.amazonaws.licensemanager#LicenseConfiguration": {
          "type": "structure",
          "members": {
            "LicenseConfigurationId": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Unique ID of the license configuration.</p>"
              }
            },
            "LicenseConfigurationArn": {
              "target": "com.amazonaws.licensemanager#String",
               "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license configuration.</p>"
              }
            },
            "Name": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Name of the license configuration.</p>"
              }
            },
            "Description": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
```

```
            "smithy.api#documentation": "<p>Description of the license configuration.</p>"
          }
        },
        "LicenseCountingType": {
          "target": "com.amazonaws.licensemanager#LicenseCountingType",
          "traits": {
            "smithy.api#documentation": "<p>Dimension to use to track the license inventory.</p>"
          }
        },
        "LicenseRules": {
          "target": "com.amazonaws.licensemanager#StringList",
          "traits": {
            "smithy.api#documentation": "<p>License rules.</p>"
          }
        },
        "LicenseCount": {
          "target": "com.amazonaws.licensemanager#BoxLong",
          "traits": {
            "smithy.api#documentation": "<p>Number of licenses managed by the license configuration.</p>"
          }
        },
        "LicenseCountHardLimit": {
          "target": "com.amazonaws.licensemanager#BoxBoolean",
          "traits": {
            "smithy.api#documentation": "<p>Number of available licenses as a hard limit.</p>"
          }
        },
        "DisassociateWhenNotFound": {
          "target": "com.amazonaws.licensemanager#BoxBoolean",
          "traits": {
            "smithy.api#documentation": "<p>When true, disassociates a resource when software is
uninstalled.</p>"
          }
        },
        "ConsumedLicenses": {
          "target": "com.amazonaws.licensemanager#BoxLong",
          "traits": {
            "smithy.api#documentation": "<p>Number of licenses consumed. </p>"
          }
        },
        "Status": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Status of the license configuration.</p>"
          }
        },
        "OwnerAccountId": {
          "target": "com.amazonaws.licensemanager#String",
```

```
            "traits": {
                "smithy.api#documentation": "<p>Account ID of the license configuration's owner.</p>"

            }
            },
            "ConsumedLicenseSummaryList": {
                "target": "com.amazonaws.licensemanager#ConsumedLicenseSummaryList",
                "traits": {
                    "smithy.api#documentation": "<p>Summaries for licenses consumed by various resources.</p>"
                }
            },
            "ManagedResourceSummaryList": {
                "target": "com.amazonaws.licensemanager#ManagedResourceSummaryList",
                "traits": {
                    "smithy.api#documentation": "<p>Summaries for managed resources.</p>"
                }
            },
            "ProductInformationList": {
                "target": "com.amazonaws.licensemanager#ProductInformationList",
                "traits": {
                    "smithy.api#documentation": "<p>Product information.</p>"
                }
            },
            "AutomatedDiscoveryInformation": {

                "target": "com.amazonaws.licensemanager#AutomatedDiscoveryInformation",
                "traits": {
                    "smithy.api#documentation": "<p>Automated discovery information.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>A license configuration is an abstraction of a customer license agreement that can be\n consumed and enforced by License Manager. Components include specifications for the license\n type (licensing by instance, socket, CPU, or vCPU), allowed tenancy (shared tenancy, \n Dedicated Instance, Dedicated Host, or all of these), host affinity (how long a VM\n must be associated with a host), and the number of licenses purchased and used.</p>"
        }
    },
    "com.amazonaws.licensemanager#LicenseConfigurationAssociation": {
        "type": "structure",
        "members": {
            "ResourceArn":
{
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the resource.</p>"
                }
```

```
            },
            "ResourceType": {
               "target": "com.amazonaws.licensemanager#ResourceType",
               "traits": {
                  "smithy.api#documentation": "<p>Type of server resource.</p>"
               }
            },
            "ResourceOwnerId": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>ID of the Amazon Web Services account that owns the resource
consuming licenses.</p>"
               }
            },
            "AssociationTime": {
               "target": "com.amazonaws.licensemanager#DateTime",
               "traits": {

      "smithy.api#documentation": "<p>Time when the license configuration was associated with the resource.</p>"
               }
            },
            "AmiAssociationScope": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Scope of AMI associations. The possible value is <code>cross-
account</code>.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#documentation": "<p>Describes an association with a license configuration.</p>"
         }
      },
      "com.amazonaws.licensemanager#LicenseConfigurationAssociations": {
         "type": "list",
         "member": {
            "target": "com.amazonaws.licensemanager#LicenseConfigurationAssociation"
         }
      },
      "com.amazonaws.licensemanager#LicenseConfigurationStatus": {
         "type": "enum",
         "members":
 {
            "AVAILABLE": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "AVAILABLE"
               }
```

```
            },
            "DISABLED": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "DISABLED"
               }
            }
         }
      },
      "com.amazonaws.licensemanager#LicenseConfigurationUsage": {
         "type": "structure",
         "members": {
            "ResourceArn": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the resource.</p>"
               }
            },
            "ResourceType": {
               "target": "com.amazonaws.licensemanager#ResourceType",
               "traits":
{
                  "smithy.api#documentation": "<p>Type of resource.</p>"
               }
            },
            "ResourceStatus": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Status of the resource.</p>"
               }
            },
            "ResourceOwnerId": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>ID of the account that owns the resource.</p>"
               }
            },
            "AssociationTime": {
               "target": "com.amazonaws.licensemanager#DateTime",
               "traits": {
                  "smithy.api#documentation": "<p>Time when the license configuration was initially associated with
the resource.</p>"
               }
            },

      "ConsumedLicenses": {
               "target": "com.amazonaws.licensemanager#BoxLong",
               "traits": {
```

```
                "smithy.api#documentation": "<p>Number of licenses consumed by the resource.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>Details about the usage of a resource associated with a license configuration.</p>"
          }
        },
        "com.amazonaws.licensemanager#LicenseConfigurationUsageList": {
          "type": "list",
          "member": {
            "target": "com.amazonaws.licensemanager#LicenseConfigurationUsage"
          }
        },
        "com.amazonaws.licensemanager#LicenseConfigurations": {
          "type": "list",
          "member": {
            "target": "com.amazonaws.licensemanager#LicenseConfiguration"
          }
        },
        "com.amazonaws.licensemanager#LicenseConversionContext": {

      "type": "structure",
          "members": {
            "UsageOperation": {
              "target": "com.amazonaws.licensemanager#UsageOperation",
              "traits": {
                "smithy.api#documentation": "<p>The Usage operation value that corresponds to the license type you are converting your resource from.  For more information about which platforms correspond to which usage operation values see <a href=\"https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/billing-info-fields.html#billing-info\">Sample data: usage operation by platform\n      </a>\n        </p>"
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>Information about a license type conversion task.</p>"
          }
        },
        "com.amazonaws.licensemanager#LicenseConversionTask": {
          "type": "structure",
          "members": {
            "LicenseConversionTaskId": {

       "target": "com.amazonaws.licensemanager#LicenseConversionTaskId",
              "traits": {
                "smithy.api#documentation": "<p>The ID of the license type conversion task.</p>"
              }
```

```
        },
        "ResourceArn": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the resource associated
with the license type\n        conversion task.</p>"
          }
        },
        "SourceLicenseContext": {
          "target": "com.amazonaws.licensemanager#LicenseConversionContext",
          "traits": {
            "smithy.api#documentation": "<p>Information about the license type this conversion task converted
from.</p>"
          }
        },
        "DestinationLicenseContext": {
          "target":
 "com.amazonaws.licensemanager#LicenseConversionContext",
          "traits": {
            "smithy.api#documentation": "<p>Information about the license type this conversion task converted
to.</p>"
          }
        },
        "Status": {
          "target": "com.amazonaws.licensemanager#LicenseConversionTaskStatus",
          "traits": {
            "smithy.api#documentation": "<p>The status of the conversion task.</p>"
          }
        },
        "StatusMessage": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>The status message for the conversion task.</p>"
          }
        },
        "StartTime": {
          "target": "com.amazonaws.licensemanager#DateTime",
          "traits": {
            "smithy.api#documentation":
 "<p>The time the conversion task was started at.</p>"
          }
        },
        "LicenseConversionTime": {
          "target": "com.amazonaws.licensemanager#DateTime",
          "traits": {
            "smithy.api#documentation": "<p>The time the usage operation value of the resource was
changed.</p>"
          }
```

```
        },
        "EndTime": {
          "target": "com.amazonaws.licensemanager#DateTime",
          "traits": {
            "smithy.api#documentation": "<p>The time the conversion task was completed.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>Information about a license type conversion task.</p>"
      }
    },
    "com.amazonaws.licensemanager#LicenseConversionTaskId": {
      "type": "string",
      "traits": {

       "smithy.api#length": {
          "min": 0,
          "max": 50
        },
        "smithy.api#pattern": "^lct-[a-zA-Z0-9]*$"
      }
    },
    "com.amazonaws.licensemanager#LicenseConversionTaskStatus": {
      "type": "enum",
      "members": {
        "IN_PROGRESS": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "IN_PROGRESS"
          }
        },
        "SUCCEEDED": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "SUCCEEDED"
          }
        },
        "FAILED": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "FAILED"
          }
        }
      }
    },
    "com.amazonaws.licensemanager#LicenseConversionTasks":
```

```
{
        "type": "list",
        "member": {
            "target": "com.amazonaws.licensemanager#LicenseConversionTask"
        }
    },
    "com.amazonaws.licensemanager#LicenseCountingType": {
        "type": "enum",
        "members": {
            "VCPU": {
                "target": "smithy.api#Unit",
                "traits": {
                    "smithy.api#enumValue": "vCPU"
                }
            },
            "INSTANCE": {
                "target": "smithy.api#Unit",
                "traits": {
                    "smithy.api#enumValue": "Instance"
                }
            },
            "CORE": {
                "target": "smithy.api#Unit",
                "traits": {
                    "smithy.api#enumValue": "Core"
                }
            },
            "SOCKET": {
                "target": "smithy.api#Unit",
                 "traits": {
                    "smithy.api#enumValue": "Socket"
                }
            }
        }
    },
    "com.amazonaws.licensemanager#LicenseDeletionStatus": {
        "type": "enum",
        "members": {
            "PENDING_DELETE": {
                "target": "smithy.api#Unit",
                "traits": {
                    "smithy.api#enumValue": "PENDING_DELETE"
                }
            },
            "DELETED": {
                "target": "smithy.api#Unit",
                "traits": {
                    "smithy.api#enumValue": "DELETED"
```

```
            }
        }
    }
},
"com.amazonaws.licensemanager#LicenseList": {
    "type": "list",
    "member": {
        "target": "com.amazonaws.licensemanager#License"
    }
},
"com.amazonaws.licensemanager#LicenseOperationFailure": {

    "type": "structure",
    "members": {
        "ResourceArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the resource.</p>"
            }
        },
        "ResourceType": {
            "target": "com.amazonaws.licensemanager#ResourceType",
            "traits": {
                "smithy.api#documentation": "<p>Resource type.</p>"
            }
        },
        "ErrorMessage": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Error message.</p>"
            }
        },
        "FailureTime": {
            "target": "com.amazonaws.licensemanager#DateTime",
            "traits": {

"smithy.api#documentation": "<p>Failure time.</p>"
            }
        },
        "OperationName": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Name of the operation.</p>"
            }
        },
        "ResourceOwnerId": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
```

```
            "smithy.api#documentation": "<p>ID of the Amazon Web Services account that owns the
resource.</p>"
          }
        },
        "OperationRequestedBy": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>The requester is \"License Manager Automated Discovery\".</p>"
          }
        },
        "MetadataList": {

          "target": "com.amazonaws.licensemanager#MetadataList",
          "traits": {
            "smithy.api#documentation": "<p>Reserved.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>Describes the failure of a license operation.</p>"
      }
    },
    "com.amazonaws.licensemanager#LicenseOperationFailureList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanager#LicenseOperationFailure"
      }
    },
    "com.amazonaws.licensemanager#LicenseSpecification": {
      "type": "structure",
      "members": {
        "LicenseConfigurationArn": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license
configuration.</p>",

            "smithy.api#required": {}
          }
        },
        "AmiAssociationScope": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Scope of AMI associations. The possible value is <code>cross-
account</code>.</p>"
          }
        }
      },
```

```
    "traits": {
        "smithy.api#documentation": "<p>Details for associating a license configuration with a resource.</p>"
    }
},
"com.amazonaws.licensemanager#LicenseSpecifications": {
    "type": "list",
    "member": {
        "target": "com.amazonaws.licensemanager#LicenseSpecification"
    }
},
"com.amazonaws.licensemanager#LicenseStatus": {
    "type": "enum",
    "members": {
        "AVAILABLE": {
            "target": "smithy.api#Unit",

        "traits": {
                "smithy.api#enumValue": "AVAILABLE"
            }
        },
        "PENDING_AVAILABLE": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "PENDING_AVAILABLE"
            }
        },
        "DEACTIVATED": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "DEACTIVATED"
            }
        },
        "SUSPENDED": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "SUSPENDED"
            }
        },
        "EXPIRED": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "EXPIRED"
            }
        },

     "PENDING_DELETE": {
            "target": "smithy.api#Unit",
            "traits": {
```

```
                "smithy.api#enumValue": "PENDING_DELETE"
              }
            },
            "DELETED": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "DELETED"
              }
            }
          }
        },
        "com.amazonaws.licensemanager#LicenseUsage": {
          "type": "structure",
          "members": {
            "EntitlementUsages": {
              "target": "com.amazonaws.licensemanager#EntitlementUsageList",
              "traits": {
                "smithy.api#documentation": "<p>License entitlement usages.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>Describes the entitlement usage associated with a license.</p>"

          }
        },
        "com.amazonaws.licensemanager#LicenseUsageException": {
          "type": "structure",
          "members": {
            "Message": {
              "target": "com.amazonaws.licensemanager#Message"
            }
          },
          "traits": {
            "aws.protocols#awsQueryError": {
              "code": "LicenseUsageFailure",
              "httpResponseCode": 412
            },
            "smithy.api#documentation": "<p>You do not have enough licenses available to support a new resource
launch.</p>",
            "smithy.api#error": "client",
            "smithy.api#httpError": 412
          }
        },
        "com.amazonaws.licensemanager#ListAssociationsForLicenseConfiguration": {
          "type": "operation",
          "input": {
            "target": "com.amazonaws.licensemanager#ListAssociationsForLicenseConfigurationRequest"
```

```
        },
        "output": {

    "target": "com.amazonaws.licensemanager#ListAssociationsForLicenseConfigurationResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#FilterLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Lists the resource associations for the
 specified license configuration.</p>\n        <p>Resource associations need not consume licenses from a license
configuration. \n        For example, an AMI or a stopped instance might not consume a license (depending on \n
the license rules).</p>"
        }
      },
      "com.amazonaws.licensemanager#ListAssociationsForLicenseConfigurationRequest": {
        "type": "structure",
        "members": {
          "LicenseConfigurationArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of a license configuration.</p>",
              "smithy.api#required": {}
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanager#BoxInteger",
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results
 to return in a single call.</p>"
            }
```

```
            },
            "NextToken": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#input": {}
          }
        },
        "com.amazonaws.licensemanager#ListAssociationsForLicenseConfigurationResponse": {
          "type": "structure",
          "members": {
            "LicenseConfigurationAssociations": {
              "target": "com.amazonaws.licensemanager#LicenseConfigurationAssociations",
              "traits": {
                "smithy.api#documentation": "<p>Information about the associations for the license
configuration.</p>"
              }
            },
            "NextToken": {

 "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#output": {}
          }
        },
        "com.amazonaws.licensemanager#ListDistributedGrants": {
          "type": "operation",
          "input": {
            "target": "com.amazonaws.licensemanager#ListDistributedGrantsRequest"
          },
          "output": {
            "target": "com.amazonaws.licensemanager#ListDistributedGrantsResponse"
          },
          "errors": [
            {
              "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
              "target": "com.amazonaws.licensemanager#AuthorizationException"
```

```
            },
            {
               "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
               "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
               "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
               "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
               "target": "com.amazonaws.licensemanager#ValidationException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Lists the grants distributed for the specified license.</p>"
         }
      },
      "com.amazonaws.licensemanager#ListDistributedGrantsRequest": {
         "type": "structure",
         "members": {
            "GrantArns": {
               "target": "com.amazonaws.licensemanager#ArnList",
               "traits": {

            "smithy.api#documentation": "<p>Amazon Resource Names (ARNs) of the grants.</p>"
               }
            },
            "Filters": {
               "target": "com.amazonaws.licensemanager#FilterList",
               "traits": {
                  "smithy.api#documentation": "<p>Filters to scope the results. The following filters are
supported:</p>\n        <ul>\n          <li>\n            <p>\n              <code>LicenseArn</code>\n            </p>\n
      </li>\n          <li>\n            <p>\n              <code>GrantStatus</code>\n            </p>\n          </li>\n
  <li>\n            <p>\n              <code>GranteePrincipalARN</code>\n            </p>\n          </li>\n
<li>\n            <p>\n              <code>ProductSKU</code>\n            </p>\n          </li>\n          <li>\n
<p>\n              <code>LicenseIssuerName</code>\n
        </p>\n          </li>\n        </ul>"
               }
            },
            "NextToken": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Token for the next set of results.</p>"
               }
```

```
        },
        "MaxResults": {
          "target": "com.amazonaws.licensemanager#MaxSize100",
          "traits": {
            "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#ListDistributedGrantsResponse": {
      "type": "structure",
      "members": {
        "Grants": {
          "target": "com.amazonaws.licensemanager#GrantList",

    "traits": {
            "smithy.api#documentation": "<p>Distributed grant details.</p>"
          }
        },
        "NextToken": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Token for the next set of results.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanager#ListFailuresForLicenseConfigurationOperations": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#ListFailuresForLicenseConfigurationOperationsRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#ListFailuresForLicenseConfigurationOperationsResponse"
      },
      "errors": [
        {

  "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
```

```
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists the license configuration operations that failed.</p>"
        }
    },
    "com.amazonaws.licensemanager#ListFailuresForLicenseConfigurationOperationsRequest": {
        "type": "structure",
        "members": {
            "LicenseConfigurationArn": {
                "target": "com.amazonaws.licensemanager#String",
                 "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name of the license configuration.</p>",
                    "smithy.api#required": {}
                }
            },
            "MaxResults": {
                "target": "com.amazonaws.licensemanager#BoxInteger",
                "traits": {
                    "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
                }
            },
            "NextToken": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Token for the next set of results.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#ListFailuresForLicenseConfigurationOperationsResponse":
{
        "type": "structure",
        "members": {
            "LicenseOperationFailureList": {
                "target": "com.amazonaws.licensemanager#LicenseOperationFailureList",
```

```
            "traits": {
                "smithy.api#documentation": "<p>License configuration operations that failed.</p>"
            }
        },
        "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#output": {}
    }
  },
  "com.amazonaws.licensemanager#ListLicenseConfigurations": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanager#ListLicenseConfigurationsRequest"
    },

 "output": {
        "target": "com.amazonaws.licensemanager#ListLicenseConfigurationsResponse"
    },
    "errors": [
        {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
            "target": "com.amazonaws.licensemanager#FilterLimitExceededException"
        },
        {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
        }
    ],
    "traits": {
        "smithy.api#documentation": "<p>Lists the license configurations
for your account.</p>"
    }
```

```
    },
    "com.amazonaws.licensemanager#ListLicenseConfigurationsRequest": {
      "type": "structure",
      "members": {
        "LicenseConfigurationArns": {
          "target": "com.amazonaws.licensemanager#StringList",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Names (ARN) of the license
configurations.</p>"
          }
        },
        "MaxResults": {
          "target": "com.amazonaws.licensemanager#BoxInteger",
          "traits": {
            "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
          }
        },
        "NextToken": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Token for the next
 set of results.</p>"
          }
        },
        "Filters": {
          "target": "com.amazonaws.licensemanager#Filters",
          "traits": {
            "smithy.api#documentation": "<p>Filters to scope the results. The following filters and logical
operators\n       are supported:</p>\n       <ul>\n       <li>\n       <p>\n
<code>licenseCountingType</code> - The dimension for which licenses are counted.\n       Possible values are
<code>vCPU</code> | <code>Instance</code> | <code>Core</code> | <code>Socket</code>.\n       Logical
operators are <code>EQUALS</code> | <code>NOT_EQUALS</code>.</p>\n       </li>\n       <li>\n
<p>\n       <code>enforceLicenseCount</code> - A Boolean value that indicates whether hard license
enforcement is used. \n       Logical operators are <code>EQUALS</code> |
<code>NOT_EQUALS</code>.</p>\n
  </li>\n       <li>\n       <p>\n       <code>usagelimitExceeded</code> - A Boolean value that
indicates whether the available licenses have been exceeded. \n       Logical operators are
<code>EQUALS</code> | <code>NOT_EQUALS</code>.</p>\n       </li>\n       </ul>"
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#ListLicenseConfigurationsResponse": {
      "type": "structure",
      "members": {
```

```
        "LicenseConfigurations": {
            "target": "com.amazonaws.licensemanager#LicenseConfigurations",
            "traits": {
                "smithy.api#documentation": "<p>Information about the license configurations.</p>"
            }
        },
        "NextToken": {
            "target": "com.amazonaws.licensemanager#String",

      "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#output": {}
    }
},
"com.amazonaws.licensemanager#ListLicenseConversionTasks": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanager#ListLicenseConversionTasksRequest"
    },
    "output": {
        "target": "com.amazonaws.licensemanager#ListLicenseConversionTasksResponse"
    },
    "errors": [
        {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
        }
    ],
    "traits": {
        "smithy.api#documentation": "<p>Lists the license type conversion tasks for your account.</p>"
    }
},
"com.amazonaws.licensemanager#ListLicenseConversionTasksRequest": {
```

```
        "type": "structure",
        "members": {
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanager#BoxInteger",
            "traits": {

    "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          },
          "Filters": {
            "target": "com.amazonaws.licensemanager#Filters",
            "traits": {
              "smithy.api#documentation": "<p>\n         Filters to scope the results. Valid filters are
<code>ResourceArns</code> and <code>Status</code>.\n      </p>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#ListLicenseConversionTasksResponse": {
        "type": "structure",
        "members": {
          "LicenseConversionTasks": {
            "target": "com.amazonaws.licensemanager#LicenseConversionTasks",
            "traits": {
              "smithy.api#documentation": "<p>Information about the license configuration tasks for your
 account.</p>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
```

```
    "com.amazonaws.licensemanager#ListLicenseManagerReportGenerators": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#ListLicenseManagerReportGeneratorsRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#ListLicenseManagerReportGeneratorsResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target":
"com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
          "target": "com.amazonaws.licensemanager#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Lists the report generators for your account.</p>"
      }
    },
    "com.amazonaws.licensemanager#ListLicenseManagerReportGeneratorsRequest":
{
      "type": "structure",
      "members": {
        "Filters": {
          "target": "com.amazonaws.licensemanager#FilterList",
          "traits": {
            "smithy.api#documentation": "<p>Filters to scope the results. The following filters are supported:
</p>\n        <ul>\n          <li>\n            <p>\n              <code>LicenseConfigurationArn</code>\n
```

```
</p>\n          </li>\n        </ul>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanager#MaxSize100",
            "traits":
{
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#ListLicenseManagerReportGeneratorsResponse": {
        "type": "structure",
        "members": {
          "ReportGenerators": {
            "target": "com.amazonaws.licensemanager#ReportGeneratorList",
            "traits": {
              "smithy.api#documentation": "<p>A report generator that creates periodic reports about your license
configurations.</p>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }

        }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#ListLicenseSpecificationsForResource": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#ListLicenseSpecificationsForResourceRequest"
        },
```

```
        "output": {
            "target": "com.amazonaws.licensemanager#ListLicenseSpecificationsForResourceResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
             },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Describes the license configurations for the specified resource.</p>"
        }
    },
    "com.amazonaws.licensemanager#ListLicenseSpecificationsForResourceRequest": {
        "type": "structure",
        "members": {
            "ResourceArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of a resource that has an
associated license configuration.</p>",
                    "smithy.api#required": {}
                }
            },
            "MaxResults": {
                "target": "com.amazonaws.licensemanager#BoxInteger",
                "traits": {

      "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
                }
            },
            "NextToken": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Token for the next set of results.</p>"
                }
            }
```

```
    },
    "traits": {
      "smithy.api#input": {}
    }
  },
  "com.amazonaws.licensemanager#ListLicenseSpecificationsForResourceResponse": {
    "type": "structure",
    "members": {
      "LicenseSpecifications": {
        "target": "com.amazonaws.licensemanager#LicenseSpecifications",
        "traits": {
          "smithy.api#documentation": "<p>License configurations associated with a resource.</p>"
        }
      },
      "NextToken": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>Token for the next set of results.</p>"
        }
      }
    },
    "traits": {
      "smithy.api#output": {}
    }
  },
  "com.amazonaws.licensemanager#ListLicenseVersions": {
    "type": "operation",
    "input": {
      "target": "com.amazonaws.licensemanager#ListLicenseVersionsRequest"
    },
    "output": {
      "target": "com.amazonaws.licensemanager#ListLicenseVersionsResponse"
    },
    "errors": [
      {
        "target": "com.amazonaws.licensemanager#AccessDeniedException"
      },
      {
        "target": "com.amazonaws.licensemanager#AuthorizationException"
      },
      {
        "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
      },
      {
        "target": "com.amazonaws.licensemanager#RateLimitExceededException"
      },
      {
        "target": "com.amazonaws.licensemanager#ServerInternalException"
```

```
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists all versions of the specified license.</p>"
        }
    },
    "com.amazonaws.licensemanager#ListLicenseVersionsRequest": {
        "type": "structure",
        "members": {
            "LicenseArn": {
                "target": "com.amazonaws.licensemanager#Arn",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>",
                    "smithy.api#required": {}
                }
            },
            "NextToken": {
                "target": "com.amazonaws.licensemanager#String",
                 "traits": {
                    "smithy.api#documentation": "<p>Token for the next set of results.</p>"
                }
            },
            "MaxResults": {
                "target": "com.amazonaws.licensemanager#MaxSize100",
                "traits": {
                    "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#ListLicenseVersionsResponse": {
        "type": "structure",
        "members": {
            "Licenses": {
                "target": "com.amazonaws.licensemanager#LicenseList",
                "traits": {
                    "smithy.api#documentation": "<p>License details.</p>"
                }
            },

"NextToken": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Token for the next set of results.</p>"
                }
```

```
        }
      },
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanager#ListLicenses": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#ListLicensesRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#ListLicensesResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
         },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
          "target": "com.amazonaws.licensemanager#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Lists the licenses for your account.</p>"
      }
    },
    "com.amazonaws.licensemanager#ListLicensesRequest": {
      "type": "structure",
      "members": {
        "LicenseArns": {
          "target": "com.amazonaws.licensemanager#ArnList",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Names (ARNs) of the licenses.</p>"
          }
        },
```

```
        "Filters": {
            "target": "com.amazonaws.licensemanager#FilterList",
            "traits": {
              "smithy.api#documentation": "<p>Filters to scope the results. The following filters are
supported:</p>\n        <ul>\n          <li>\n            <p>\n              <code>Beneficiary</code>\n            </p>\n
        </li>\n          <li>\n            <p>\n              <code>ProductSKU</code>\n            </p>\n          </li>\n
    <li>\n            <p>\n              <code>Fingerprint</code>\n            </p>\n          </li>\n          <li>\n
<p>\n              <code>Status</code>\n            </p>\n          </li>\n        </ul>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token
 for the next set of results.</p>"
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanager#MaxSize100",
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#ListLicensesResponse": {
        "type": "structure",
        "members": {
          "Licenses": {
            "target": "com.amazonaws.licensemanager#LicenseList",
            "traits": {
              "smithy.api#documentation": "<p>License details.</p>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {

    "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
```

```
    },
    "com.amazonaws.licensemanager#ListReceivedGrants": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#ListReceivedGrantsRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#ListReceivedGrantsResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
          "target": "com.amazonaws.licensemanager#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Lists grants that are received. Received grants are grants created while specifying the\n          recipient as this Amazon Web Services account, your organization, or an organizational unit\n          (OU) to which this member account belongs.</p>"
      }
    },
    "com.amazonaws.licensemanager#ListReceivedGrantsForOrganization": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#ListReceivedGrantsForOrganizationRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#ListReceivedGrantsForOrganizationResponse"
      },
      "errors": [
        {
```

```
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          },
          {
            "target":
 "com.amazonaws.licensemanager#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Lists the grants received for all accounts in the organization.</p>"
        }
      },
      "com.amazonaws.licensemanager#ListReceivedGrantsForOrganizationRequest": {
        "type": "structure",
        "members": {
          "LicenseArn": {
            "target": "com.amazonaws.licensemanager#Arn",
            "traits": {
              "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the received license.</p>",
              "smithy.api#required": {}
            }
          },
          "Filters": {
            "target": "com.amazonaws.licensemanager#FilterList",
            "traits": {
              "smithy.api#documentation": "<p>Filters to scope the results. The following filters are
supported:</p>\n
    <ul>\n        <li>\n            <p>\n                <code>ParentArn</code>\n            </p>\n        </li>\n
<li>\n            <p>\n                <code>GranteePrincipalArn</code>\n            </p>\n        </li>\n    </ul>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
```

```
            "smithy.api#documentation": "<p>Token for the next set of results.</p>"
          }
        },
        "MaxResults": {
          "target": "com.amazonaws.licensemanager#MaxSize100",
          "traits": {
            "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#ListReceivedGrantsForOrganizationResponse":
{
      "type": "structure",
      "members": {
        "Grants": {
          "target": "com.amazonaws.licensemanager#GrantList",
          "traits": {
            "smithy.api#documentation": "<p>Lists the grants the organization has received.</p>"
          }
        },
        "NextToken": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Token for the next set of results.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanager#ListReceivedGrantsRequest": {
      "type": "structure",
      "members": {
        "GrantArns": {
          "target": "com.amazonaws.licensemanager#ArnList",
           "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Names (ARNs) of the grants.</p>"
          }
        },
        "Filters": {
          "target": "com.amazonaws.licensemanager#FilterList",
          "traits": {
            "smithy.api#documentation": "<p>Filters to scope the results. The following filters are
```

```
supported:</p>\n <ul>\n <li>\n <p>\n <code>ProductSKU</code>\n </p>\n
</li>\n <li>\n <p>\n <code>LicenseIssuerName</code>\n </p>\n
</li>\n <li>\n <p>\n <code>LicenseArn</code>\n </p>\n </li>\n
<li>\n <p>\n <code>GrantStatus</code>\n </p>\n </li>\n <li>\n
<p>\n
<code>GranterAccountId</code>\n </p>\n </li>\n </ul>"
}
},
"NextToken": {
"target": "com.amazonaws.licensemanager#String",
"traits": {
"smithy.api#documentation": "<p>Token for the next set of results.</p>"
}
},
"MaxResults": {
"target": "com.amazonaws.licensemanager#MaxSize100",
"traits": {
"smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
}
}
},
"traits": {
"smithy.api#input": {}
}
},
"com.amazonaws.licensemanager#ListReceivedGrantsResponse": {
"type": "structure",
"members": {
"Grants": {
"target": "com.amazonaws.licensemanager#GrantList",
"traits": {
"smithy.api#documentation": "<p>Received grant details.</p>"
}
},
"NextToken": {
"target": "com.amazonaws.licensemanager#String",
"traits": {
"smithy.api#documentation": "<p>Token for the next set of results.</p>"
}
}
},
"traits": {
"smithy.api#output": {}
}
},
"com.amazonaws.licensemanager#ListReceivedLicenses": {
"type": "operation",
"input": {
```

```
            "target": "com.amazonaws.licensemanager#ListReceivedLicensesRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#ListReceivedLicensesResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
             },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists received licenses.</p>"
        }
    },
    "com.amazonaws.licensemanager#ListReceivedLicensesForOrganization":
{
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#ListReceivedLicensesForOrganizationRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#ListReceivedLicensesForOrganizationResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
```

```
            {
              "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
              "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
              "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {

        "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
              "target": "com.amazonaws.licensemanager#ValidationException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Lists the licenses received for all accounts in the organization.</p>"
          }
        },
        "com.amazonaws.licensemanager#ListReceivedLicensesForOrganizationRequest": {
          "type": "structure",
          "members": {
            "Filters": {
              "target": "com.amazonaws.licensemanager#FilterList",
              "traits": {
                "smithy.api#documentation": "<p>Filters to scope the results. The following filters are
    supported:</p>\n        <ul>\n          <li>\n            <p>\n              <code>Beneficiary</code>\n            </p>\n
          </li>\n          <li>\n            <p>\n              <code>ProductSKU</code>\n
            </p>\n          </li>\n        </ul>"
              }
            },
            "NextToken": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
              }
            },
            "MaxResults": {
              "target": "com.amazonaws.licensemanager#MaxSize100",
              "traits": {
                "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#input": {}
```

```
        }
      },
      "com.amazonaws.licensemanager#ListReceivedLicensesForOrganizationResponse": {
        "type": "structure",
        "members": {
          "Licenses": {
            "target": "com.amazonaws.licensemanager#GrantedLicenseList",
             "traits": {
               "smithy.api#documentation": "<p>Lists the licenses the organization has received.</p>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
               "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#ListReceivedLicensesRequest": {
        "type": "structure",
        "members": {
          "LicenseArns": {
            "target": "com.amazonaws.licensemanager#ArnList",
            "traits": {
               "smithy.api#documentation": "<p>Amazon Resource Names (ARNs) of the licenses.</p>"
            }
          },

           "Filters": {
            "target": "com.amazonaws.licensemanager#FilterList",
            "traits": {
               "smithy.api#documentation": "<p>Filters to scope the results. The following filters are
supported:</p>\n        <ul>\n          <li>\n            <p>\n              <code>ProductSKU</code>\n            </p>\n
        </li>\n          <li>\n            <p>\n              <code>Status</code>\n            </p>\n          </li>\n
<li>\n            <p>\n              <code>Fingerprint</code>\n            </p>\n          </li>\n          <li>\n
<p>\n              <code>IssuerName</code>\n            </p>\n          </li>\n          <li>\n            <p>\n
<code>Beneficiary</code>\n            </p>\n          </li>\n        </ul>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
             "traits": {
               "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
```

```
      },
      "MaxResults": {
        "target": "com.amazonaws.licensemanager#MaxSize100",
        "traits": {
          "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
        }
      }
    },
    "traits": {
      "smithy.api#input": {}
    }
  },
  "com.amazonaws.licensemanager#ListReceivedLicensesResponse": {
    "type": "structure",
    "members": {
      "Licenses": {
        "target": "com.amazonaws.licensemanager#GrantedLicenseList",
        "traits": {
          "smithy.api#documentation": "<p>Received license details.</p>"
        }
      },

     "NextToken": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>Token for the next set of results.</p>"
        }
      }
    },
    "traits": {
      "smithy.api#output": {}
    }
  },
  "com.amazonaws.licensemanager#ListResourceInventory": {
    "type": "operation",
    "input": {
      "target": "com.amazonaws.licensemanager#ListResourceInventoryRequest"
    },
    "output": {
      "target": "com.amazonaws.licensemanager#ListResourceInventoryResponse"
    },
    "errors": [
      {
        "target": "com.amazonaws.licensemanager#AccessDeniedException"
      },
      {
        "target": "com.amazonaws.licensemanager#AuthorizationException"
      },
```

```
            {
                "target": "com.amazonaws.licensemanager#FailedDependencyException"
            },
            {
                "target": "com.amazonaws.licensemanager#FilterLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists resources managed using Systems Manager inventory.</p>"
        }
    },
    "com.amazonaws.licensemanager#ListResourceInventoryRequest": {
        "type": "structure",
        "members": {
            "MaxResults": {
                "target": "com.amazonaws.licensemanager#BoxInteger",
                "traits": {
                    "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
                }
            },
            "NextToken": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Token for the next set of results.</p>"
                }
            },
            "Filters": {
                "target": "com.amazonaws.licensemanager#InventoryFilterList",
                "traits": {
                    "smithy.api#documentation": "<p>Filters to scope the results. The following filters and logical
operators\n are supported:</p>\n <ul>\n <li>\n <p>\n <code>account_id</code>
- The ID of the Amazon Web Services account that owns the resource.\n Logical operators are
<code>EQUALS</code> | <code>NOT_EQUALS</code>.</p>\n
 </li>\n <li>\n <p>\n <code>application_name</code> - The name of the
application. \n Logical operators are <code>EQUALS</code> | <code>BEGINS_WITH</code>.</p>\n
 </li>\n <li>\n <p>\n <code>license_included</code> - The type of license included. \n
 Logical operators are <code>EQUALS</code> | <code>NOT_EQUALS</code>.\n Possible values
are <code>sql-server-enterprise</code> | \n <code>sql-server-standard</code> | \n <code>sql-
server-web</code> | \n <code>windows-server-datacenter</code>.</p>\n </li>\n <li>\n
```

\n <code>platform</code> - The platform of the resource.\n Logical operators are <code>EQUALS</code> | <code>BEGINS_WITH</code>. \n \n \n \n <code>resource_id</code> - The ID of the resource. \n Logical operators are <code>EQUALS</code> | <code>NOT_EQUALS</code>. \n \n \n \n <code>tag:<key></code> - The key/value combination of a tag assigned \n to the resource. Logical operators are <code>EQUALS</code> (single account) or\n <code>EQUALS</code> | <code>NOT_EQUALS</code> (cross account). \n \n "
}
}
},
"traits": {
"smithy.api#input": {}
}
},
"com.amazonaws.licensemanager#ListResourceInventoryResponse": {
"type": "structure",
"members": {
"ResourceInventoryList": {
"target": "com.amazonaws.licensemanager#ResourceInventoryList",
"traits": {
"smithy.api#documentation": " Information about the resources. "
}
},
"NextToken": {
"target": "com.amazonaws.licensemanager#String",
"traits": {
"smithy.api#documentation": " Token for the next set of results. "
}
}
},
"traits": {
"smithy.api#output": {}
}
},
"com.amazonaws.licensemanager#ListTagsForResource": {
"type": "operation",
"input": {
"target": "com.amazonaws.licensemanager#ListTagsForResourceRequest"
},
"output": {
"target": "com.amazonaws.licensemanager#ListTagsForResourceResponse"
},
"errors": [
{
"target": "com.amazonaws.licensemanager#AccessDeniedException"
},
{

```
                "target": "com.amazonaws.licensemanager#AuthorizationException"
              },
              {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
              },
              {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
              },
              {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
              }
            ],
            "traits": {
              "smithy.api#documentation": "<p>Lists the tags for the specified license configuration.</p>"
            }
          },
          "com.amazonaws.licensemanager#ListTagsForResourceRequest": {
            "type": "structure",
            "members": {
              "ResourceArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                  "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license
configuration.</p>",

          "smithy.api#required": {}
                }
              }
            },
            "traits": {
              "smithy.api#input": {}
            }
          },
          "com.amazonaws.licensemanager#ListTagsForResourceResponse": {
            "type": "structure",
            "members": {
              "Tags": {
                "target": "com.amazonaws.licensemanager#TagList",
                "traits": {
                  "smithy.api#documentation": "<p>Information about the tags.</p>"
                }
              }
            },
            "traits": {
              "smithy.api#output": {}
            }
          },
          "com.amazonaws.licensemanager#ListTokens": {
```

```
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#ListTokensRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#ListTokensResponse"
        },
        "errors":
[
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists your tokens.</p>"
        }
    },
    "com.amazonaws.licensemanager#ListTokensRequest": {
        "type": "structure",
        "members": {
            "TokenIds": {
                "target": "com.amazonaws.licensemanager#StringList",
                "traits": {

                  "smithy.api#documentation": "<p>Token IDs.</p>"
                }
            },
            "Filters": {
                "target": "com.amazonaws.licensemanager#FilterList",
                "traits": {
                    "smithy.api#documentation": "<p>Filters to scope the results. The following filter is supported:</p>\n
    <ul>\n          <li>\n          <p>\n          <code>LicenseArns</code>\n          </p>\n          </li>\n
</ul>"
                }
            },
            "NextToken": {
```

```
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanager#MaxSize100",
            "traits": {
              "smithy.api#documentation":
"<p>Maximum number of results to return in a single call.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#ListTokensResponse": {
        "type": "structure",
        "members": {
          "Tokens": {
            "target": "com.amazonaws.licensemanager#TokenList",
            "traits": {
              "smithy.api#documentation": "<p>Received token details.</p>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#ListUsageForLicenseConfiguration":
{
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#ListUsageForLicenseConfigurationRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#ListUsageForLicenseConfigurationResponse"
        },
        "errors": [
          {
```

```
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#FilterLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Lists all license usage records for a license configuration, displaying
license\n        consumption details by resource at a selected point in time. Use this action to audit the\n        current
license consumption for any license inventory and configuration.</p>"
        }
      },
      "com.amazonaws.licensemanager#ListUsageForLicenseConfigurationRequest": {
        "type": "structure",
        "members": {
          "LicenseConfigurationArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license
configuration.</p>",
              "smithy.api#required": {}
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanager#BoxInteger",
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          },
          "Filters": {
```

```
            "target": "com.amazonaws.licensemanager#Filters",
            "traits": {
              "smithy.api#documentation": "<p>Filters to scope the results. The following filters and logical operators\n        are supported:</p>\n        <ul>\n          <li>\n            <p>\n              <code>resourceArn</code> - The ARN of the license configuration resource.\n              Logical operators are <code>EQUALS</code> | <code>NOT_EQUALS</code>.</p>\n          </li>\n          <li>\n            <p>\n              <code>resourceType</code> - The resource type (<code>EC2_INSTANCE</code> | <code>EC2_HOST</code> | <code>EC2_AMI</code> | <code>SYSTEMS_MANAGER_MANAGED_INSTANCE</code>). \n              Logical operators are <code>EQUALS</code> | <code>NOT_EQUALS</code>.</p>\n          </li>\n          <li>\n            <p>\n              <code>resourceAccount</code> - The ID of the account that owns the resource. \n              Logical operators are <code>EQUALS</code> | <code>NOT_EQUALS</code>.</p>\n          </li>\n        </ul>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#ListUsageForLicenseConfigurationResponse": {
        "type": "structure",
        "members": {

 "LicenseConfigurationUsageList": {
            "target": "com.amazonaws.licensemanager#LicenseConfigurationUsageList",
            "traits": {
              "smithy.api#documentation": "<p>Information about the license configurations.</p>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#Location": {
        "type": "string"
      },
      "com.amazonaws.licensemanager#Long": {
        "type": "long"
      },
      "com.amazonaws.licensemanager#ManagedResourceSummary": {
        "type": "structure",
```

```
      "members": {
        "ResourceType":
{
          "target": "com.amazonaws.licensemanager#ResourceType",
          "traits": {
            "smithy.api#documentation": "<p>Type of resource associated with a license.</p>"
          }
        },
        "AssociationCount": {
          "target": "com.amazonaws.licensemanager#BoxLong",
          "traits": {
            "smithy.api#documentation": "<p>Number of resources associated with licenses.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>Summary information about a managed resource.</p>"
      }
    },
    "com.amazonaws.licensemanager#ManagedResourceSummaryList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanager#ManagedResourceSummary"
      }
    },
    "com.amazonaws.licensemanager#MaxSize100": {

    "type": "integer",
      "traits": {
        "smithy.api#range": {
          "min": 1,
          "max": 100
        }
      }
    },
    "com.amazonaws.licensemanager#MaxSize3StringList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanager#String"
      },
      "traits": {
        "smithy.api#length": {
          "min": 0,
          "max": 3
        }
      }
    },
    "com.amazonaws.licensemanager#Message": {
```

```
        "type": "string"
      },
      "com.amazonaws.licensemanager#Metadata": {
        "type": "structure",
        "members": {
          "Name": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>The key name.</p>"
            }
          },

      "Value": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>The value.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Describes key/value pairs.</p>"
        }
      },
      "com.amazonaws.licensemanager#MetadataList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#Metadata"
        }
      },
      "com.amazonaws.licensemanager#NoEntitlementsAllowedException": {
        "type": "structure",
        "members": {
          "Message": {
            "target": "com.amazonaws.licensemanager#Message"
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>There are no entitlements found for this license, or the entitlement
maximum count is reached.</p>",
           "smithy.api#error": "client",
          "smithy.api#httpError": 400
        }
      },
      "com.amazonaws.licensemanager#Options": {
        "type": "structure",
        "members": {
          "ActivationOverrideBehavior": {
            "target": "com.amazonaws.licensemanager#ActivationOverrideBehavior",
```

```
            "traits": {
                "smithy.api#documentation": "<p>An activation option for your grant that determines the behavior of activating a grant.\n         Activation options can only be used with granted licenses sourced from the Amazon Web Services Marketplace. Additionally, the operation must specify the value of <code>ACTIVE</code> for the\n <code>Status</code> parameter.</p>\n         <ul>\n         <li>\n         <p>As a license administrator, you can optionally specify an\n         <code>ActivationOverrideBehavior</code> when activating a grant.</p>\n         </li>\n         <li>\n         <p>As a grantor, you can optionally specify an\n <code>ActivationOverrideBehavior</code> when you activate a grant for a grantee\n         account in your organization.</p>\n         </li>\n         <li>\n         <p>As a grantee, if the grantor creating the distributed grant doesnt specify an\n         <code>ActivationOverrideBehavior</code>, you can optionally specify one when you\n         are activating the grant.</p>\n         </li>\n         </ul>\n         <dl>\n <dt>DISTRIBUTED_GRANTS_ONLY</dt>\n         <dd>\n         <p>Use this value to activate a grant without replacing any member accounts\n         active grants for the same product.</p>\n         </dd>\n <dt>ALL_GRANTS_PERMITTED_BY_ISSUER</dt>\n         <dd>\n         <p>Use this value to activate a grant and disable other active grants in any\n         member accounts
 for the same product. This action will also replace their\n         previously activated grants with this activated grant.</p>\n         </dd>\n         </dl>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>The options you can specify when you create a new version of a grant, such as activation\n         override behavior. For more information, see <a href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/granted-licenses.html\">Granted licenses in License Manager</a> in the <i>License Manager User Guide</i>.</p>"
        }
      },
      "com.amazonaws.licensemanager#OrganizationConfiguration": {
        "type": "structure",
        "members": {
          "EnableIntegration": {
            "target": "com.amazonaws.licensemanager#Boolean",
            "traits": {
              "smithy.api#default": false,
              "smithy.api#documentation":
 "<p>Enables Organizations integration.</p>",
              "smithy.api#required": {}
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Configuration information for Organizations.</p>"
        }
      },
      "com.amazonaws.licensemanager#PrincipalArnList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#Arn"
```

```
        },
        "traits": {
          "smithy.api#length": {
            "min": 1,
            "max": 1
          }
        }
      },
      "com.amazonaws.licensemanager#ProductInformation": {
        "type": "structure",
        "members": {
          "ResourceType": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Resource type. The
 possible values are <code>SSM_MANAGED</code> | <code>RDS</code>.</p>",
              "smithy.api#required": {}
            }
          },
          "ProductInformationFilterList": {
            "target": "com.amazonaws.licensemanager#ProductInformationFilterList",
            "traits": {
              "smithy.api#documentation": "<p>A Product information filter consists of a
 <code>ProductInformationFilterComparator</code> which is a logical operator, a
 <code>ProductInformationFilterName</code> which specifies the type of filter being declared, and a
 <code>ProductInformationFilterValue</code> that specifies the value to filter on. </p>\n        <p>Accepted values
 for <code>ProductInformationFilterName</code> are listed here along with descriptions and valid options for
 <code>ProductInformationFilterComparator</code>. </p>\n        <p>The following filters and are supported when
 the resource type \n        is <code>SSM_MANAGED</code>:</p>\n
        <ul>\n          <li>\n            <p>\n              <code>Application Name</code> - The name of the
 application.\n              Logical operator is <code>EQUALS</code>.</p>\n          </li>\n          <li>\n
 <p>\n              <code>Application Publisher</code> - The publisher of the application.\n              Logical
 operator is <code>EQUALS</code>.</p>\n          </li>\n          <li>\n            <p>\n
 <code>Application Version</code> - The version of the application.\n              Logical operator is
 <code>EQUALS</code>.</p>\n          </li>\n          <li>\n            <p>\n              <code>Platform
 Name</code> - The name of the platform.\n              Logical operator is <code>EQUALS</code>.</p>\n
 </li>\n          <li>\n            <p>\n              <code>Platform Type</code> - The platform type.\n
 Logical operator is <code>EQUALS</code>.</p>\n
        </li>\n          <li>\n            <p>\n              <code>Tag:key</code> - The key of a tag attached to an
 Amazon Web Services resource you wish to exclude from automated discovery. Logical operator is
 <code>NOT_EQUALS</code>.  The key for your tag must be appended to <code>Tag:</code> following the
 example: <code>Tag:name-of-your-key</code>. <code>ProductInformationFilterValue</code> is optional if you
 are not using values for the key.\n              </p>\n          </li>\n          <li>\n            <p>\n
 <code>AccountId</code> - The 12-digit ID of an Amazon Web Services account you wish to exclude from
 automated discovery.\n              Logical operator is <code>NOT_EQUALS</code>.</p>\n          </li>\n
 <li>\n            <p>\n              <code>License Included</code> - The type of license included.\n              Logical
 operators are <code>EQUALS</code> and <code>NOT_EQUALS</code>.\n              Possible values are:
```

<code>sql-server-enterprise</code> | \n <code>sql-server-standard</code> | \n <code>sql-server-web</code> | \n <code>windows-server-datacenter</code>. \n \n \n The following filters and logical operators are supported when the resource type\n is <code>RDS</code>: \n \n \n \n <code>Engine Edition</code> - The edition of the database engine.\n Logical operator is <code>EQUALS</code>.\n Possible values are: <code>oracle-ee</code> | <code>oracle-se</code> | <code>oracle-se1</code> | <code>oracle-se2</code>. \n \n \n \n <code>License Pack</code> - The license pack.\n Logical operator is <code>EQUALS</code>.\n Possible values are: <code>data guard</code> | \n <code>diagnostic pack sqlt</code> | \n <code>tuning pack sqlt</code> | \n <code>ols</code> | \n <code>olap</code>. \n \n ",


```
            "smithy.api#required": {}
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>Describes product information for a license configuration.</p>"
      }
    },
    "com.amazonaws.licensemanager#ProductInformationFilter": {
      "type": "structure",
      "members": {
        "ProductInformationFilterName": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Filter name.</p>",
            "smithy.api#required": {}
          }
        },
        "ProductInformationFilterValue": {
          "target": "com.amazonaws.licensemanager#StringList",

       "traits": {
            "smithy.api#documentation": "<p>Filter value.</p>"
          }
        },
        "ProductInformationFilterComparator": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Logical operator.</p>",
            "smithy.api#required": {}
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>Describes product information filters.</p>"
      }
    },
```

```
    "com.amazonaws.licensemanager#ProductInformationFilterList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanager#ProductInformationFilter"
      }
    },
    "com.amazonaws.licensemanager#ProductInformationList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanager#ProductInformation"
       }
    },
    "com.amazonaws.licensemanager#ProvisionalConfiguration": {
      "type": "structure",
      "members": {
        "MaxTimeToLiveInMinutes": {
          "target": "com.amazonaws.licensemanager#BoxInteger",
          "traits": {
            "smithy.api#documentation": "<p>Maximum time for the provisional configuration, in minutes.</p>",
            "smithy.api#required": {}
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>Details about a provisional configuration.</p>"
      }
    },
    "com.amazonaws.licensemanager#RateLimitExceededException": {
      "type": "structure",
      "members": {
        "Message": {
          "target": "com.amazonaws.licensemanager#Message"
        }
      },
      "traits": {
         "aws.protocols#awsQueryError": {
          "code": "RateLimitExceeded",
          "httpResponseCode": 429
        },
        "smithy.api#documentation": "<p>Too many requests have been submitted. Try again after a brief
wait.</p>",
        "smithy.api#error": "client",
        "smithy.api#httpError": 429
      }
    },
    "com.amazonaws.licensemanager#ReceivedMetadata": {
      "type": "structure",
      "members": {
```

```
            "ReceivedStatus": {
              "target": "com.amazonaws.licensemanager#ReceivedStatus",
              "traits": {
                "smithy.api#documentation": "<p>Received status.</p>"
              }
            },
            "ReceivedStatusReason": {
              "target": "com.amazonaws.licensemanager#StatusReasonMessage",
              "traits": {
                "smithy.api#documentation": "<p>Received
status reason.</p>"
              }
            },
            "AllowedOperations": {
              "target": "com.amazonaws.licensemanager#AllowedOperationList",
              "traits": {
                "smithy.api#documentation": "<p>Allowed operations.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>Metadata associated with received licenses and grants.</p>"
          }
        },
        "com.amazonaws.licensemanager#ReceivedStatus": {
          "type": "enum",
          "members": {
            "PENDING_WORKFLOW": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "PENDING_WORKFLOW"
              }
            },
            "PENDING_ACCEPT": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue":
"PENDING_ACCEPT"
              }
            },
            "REJECTED": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "REJECTED"
              }
            },
            "ACTIVE": {
              "target": "smithy.api#Unit",
```

```
            "traits": {
                "smithy.api#enumValue": "ACTIVE"
            }
        },
        "FAILED_WORKFLOW": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "FAILED_WORKFLOW"
            }
        },
        "DELETED": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "DELETED"
            }
        },
        "DISABLED": {
            "target": "smithy.api#Unit",
             "traits": {
                "smithy.api#enumValue": "DISABLED"
            }
        },
        "WORKFLOW_COMPLETED": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "WORKFLOW_COMPLETED"
            }
        }
    }
},
"com.amazonaws.licensemanager#RedirectException": {
    "type": "structure",
    "members": {
        "Location": {
            "target": "com.amazonaws.licensemanager#Location",
            "traits": {
                "smithy.api#httpHeader": "Location"
            }
        },
        "Message": {
            "target": "com.amazonaws.licensemanager#Message"
        }
    },
    "traits": {
        "smithy.api#documentation": "<p>This is not the correct Region for the resource. Try again.</p>",
         "smithy.api#error": "client",
        "smithy.api#httpError": 308
    }
```

```
    },
    "com.amazonaws.licensemanager#RejectGrant": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#RejectGrantRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#RejectGrantResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target":
"com.amazonaws.licensemanager#ResourceLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
          "target": "com.amazonaws.licensemanager#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Rejects the specified grant.</p>"
      }
    },
    "com.amazonaws.licensemanager#RejectGrantRequest": {
      "type": "structure",
      "members": {
        "GrantArn": {
          "target": "com.amazonaws.licensemanager#Arn",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the grant.</p>",
            "smithy.api#required": {}
          }
        }
      },
```

```
        "traits": {
            "smithy.api#input": {}

    }
    },
    "com.amazonaws.licensemanager#RejectGrantResponse": {
        "type": "structure",
        "members": {
            "GrantArn": {
                "target": "com.amazonaws.licensemanager#Arn",
                "traits": {
                    "smithy.api#documentation": "<p>Grant ARN.</p>"
                }
            },
            "Status": {
                "target": "com.amazonaws.licensemanager#GrantStatus",
                "traits": {
                    "smithy.api#documentation": "<p>Grant status.</p>"
                }
            },
            "Version": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Grant version.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#RenewType":
{
        "type": "enum",
        "members": {
            "NONE": {
                "target": "smithy.api#Unit",
                "traits": {
                    "smithy.api#enumValue": "None"
                }
            },
            "WEEKLY": {
                "target": "smithy.api#Unit",
                "traits": {
                    "smithy.api#enumValue": "Weekly"
                }
            },
            "MONTHLY": {
```

```
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "Monthly"
            }
          }
        }
      },
      "com.amazonaws.licensemanager#ReportContext": {
        "type": "structure",
        "members": {
          "licenseConfigurationArns": {
            "target": "com.amazonaws.licensemanager#ArnList",
            "traits": {

        "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license configuration that this
generator reports on.</p>",
              "smithy.api#required": {}
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Details of the license configuration that this generator reports on.</p>"
        }
      },
      "com.amazonaws.licensemanager#ReportFrequency": {
        "type": "structure",
        "members": {
          "value": {
            "target": "com.amazonaws.licensemanager#Integer",
            "traits": {
              "smithy.api#documentation": "<p>Number of times within the frequency period that a report is
generated.  \n        The only supported value is <code>1</code>.</p>"
            }
          },
          "period": {
            "target": "com.amazonaws.licensemanager#ReportFrequencyType",

           "traits": {
              "smithy.api#documentation": "<p>Time period between each report. The period can be daily, weekly,
or monthly.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Details about how frequently reports are generated.</p>"
        }
      },
      "com.amazonaws.licensemanager#ReportFrequencyType": {
```

```
        "type": "enum",
        "members": {
          "DAY": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "DAY"
            }
          },
          "WEEK": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "WEEK"
            }
          },
          "MONTH": {
            "target": "smithy.api#Unit",
            "traits":
{
              "smithy.api#enumValue": "MONTH"
            }
          }
        }
      },
      "com.amazonaws.licensemanager#ReportGenerator": {
        "type": "structure",
        "members": {
          "ReportGeneratorName": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Name of the report generator.</p>"
            }
          },
          "ReportType": {
            "target": "com.amazonaws.licensemanager#ReportTypeList",
            "traits": {
              "smithy.api#documentation": "<p>Type of reports that are generated.</p>"
            }
          },
          "ReportContext": {
            "target": "com.amazonaws.licensemanager#ReportContext",
            "traits": {
              "smithy.api#documentation": "<p>License
configuration type for this generator.</p>"
            }
          },
          "ReportFrequency": {
            "target": "com.amazonaws.licensemanager#ReportFrequency",
            "traits": {
```

```
                "smithy.api#documentation": "<p>Details about how frequently reports are generated.</p>"
            }
        },
        "LicenseManagerReportGeneratorArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the report generator.</p>"
            }
        },
        "LastRunStatus": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Status of the last report generation attempt.</p>"
            }
        },
        "LastRunFailureReason":
{
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Failure message for the last report generation attempt.</p>"
            }
        },
        "LastReportGenerationTime": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Time the last report was generated at.</p>"
            }
        },
        "ReportCreatorAccount": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>The Amazon Web Services account ID used to create the report
generator.</p>"
            }
        },
        "Description": {
            "target": "com.amazonaws.licensemanager#String",

    "traits": {
                "smithy.api#documentation": "<p>Description of the report generator.</p>"
            }
        },
        "S3Location": {
            "target": "com.amazonaws.licensemanager#S3Location",
            "traits": {
                "smithy.api#documentation": "<p>Details of the S3 bucket that report generator reports are published
to.</p>"
            }
```

```
        },
        "CreateTime": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Time the report was created.</p>"
          }
        },
        "Tags": {
          "target": "com.amazonaws.licensemanager#TagList",
          "traits": {
            "smithy.api#documentation": "<p>Tags associated with the report generator.</p>"
          }

}
    },
    "traits": {
      "smithy.api#documentation": "<p>Describe the details of a report generator.</p>"
    }
  },
  "com.amazonaws.licensemanager#ReportGeneratorList": {
    "type": "list",
    "member": {
      "target": "com.amazonaws.licensemanager#ReportGenerator"
    }
  },
  "com.amazonaws.licensemanager#ReportGeneratorName": {
    "type": "string",
    "traits": {
      "smithy.api#length": {
        "min": 1,
        "max": 100
      }
    }
  },
  "com.amazonaws.licensemanager#ReportType": {
    "type": "enum",
    "members": {
      "LICENSE_CONFIGURATION_SUMMARY_REPORT": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "LicenseConfigurationSummaryReport"
        }

  },
        "LICENSE_CONFIGURATION_USAGE_REPORT": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "LicenseConfigurationUsageReport"
```

```
            }
          }
        }
      },
      "com.amazonaws.licensemanager#ReportTypeList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#ReportType"
        }
      },
      "com.amazonaws.licensemanager#ResourceInventory": {
        "type": "structure",
        "members": {
          "ResourceId": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>ID of the resource.</p>"
            }
          },
          "ResourceType": {
            "target": "com.amazonaws.licensemanager#ResourceType",
            "traits":
{
              "smithy.api#documentation": "<p>Type of resource.</p>"
            }
          },
          "ResourceArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the resource.</p>"
            }
          },
          "Platform": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Platform of the resource.</p>"
            }
          },
          "PlatformVersion": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Platform version of the resource in the inventory.</p>"
            }
          },
          "ResourceOwningAccountId":
{
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
```

```
            "smithy.api#documentation": "<p>ID of the account that owns the resource.</p>"
          }
        }
    },
    "traits": {
      "smithy.api#documentation": "<p>Details about a resource.</p>"
    }
},
"com.amazonaws.licensemanager#ResourceInventoryList": {
    "type": "list",
    "member": {
      "target": "com.amazonaws.licensemanager#ResourceInventory"
    }
},
"com.amazonaws.licensemanager#ResourceLimitExceededException": {
    "type": "structure",
    "members": {
      "Message": {
        "target": "com.amazonaws.licensemanager#Message"
      }
    },
    "traits": {
      "aws.protocols#awsQueryError": {
        "code": "ResourceLimitExceeded",

       "httpResponseCode": 400
      },
      "smithy.api#documentation": "<p>Your resource limits have been exceeded.</p>",
      "smithy.api#error": "client",
      "smithy.api#httpError": 400
    }
},
"com.amazonaws.licensemanager#ResourceNotFoundException": {
    "type": "structure",
    "members": {
      "Message": {
        "target": "com.amazonaws.licensemanager#Message"
      }
    },
    "traits": {
      "aws.protocols#awsQueryError": {
        "code": "InvalidResource.NotFound",
        "httpResponseCode": 400
      },
      "smithy.api#documentation": "<p>The resource cannot be found.</p>",
      "smithy.api#error": "client",
      "smithy.api#httpError": 400
    }
```

```
},
"com.amazonaws.licensemanager#ResourceType": {
    "type": "enum",
     "members": {
        "EC2_INSTANCE": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "EC2_INSTANCE"
            }
        },
        "EC2_HOST": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "EC2_HOST"
            }
        },
        "EC2_AMI": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "EC2_AMI"
            }
        },
        "RDS": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "RDS"
            }
        },
        "SYSTEMS_MANAGER_MANAGED_INSTANCE": {
            "target": "smithy.api#Unit",
            "traits": {
                 "smithy.api#enumValue": "SYSTEMS_MANAGER_MANAGED_INSTANCE"
            }
        }
    }
},
"com.amazonaws.licensemanager#S3Location": {
    "type": "structure",
    "members": {
        "bucket": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Name of the S3 bucket reports are published to.</p>"
            }
        },
        "keyPrefix": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
```

```
                "smithy.api#documentation": "<p>Prefix of the S3 bucket reports are published to.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>Details of the S3 bucket that report generator reports are published
to.</p>"
          }
        },
        "com.amazonaws.licensemanager#ServerInternalException": {
          "type": "structure",
          "members": {
            "Message": {
              "target": "com.amazonaws.licensemanager#Message"
            }
          },
          "traits": {
            "aws.protocols#awsQueryError": {
              "code": "InternalError",
              "httpResponseCode": 500
            },
            "smithy.api#documentation": "<p>The server experienced an internal error. Try again.</p>",
            "smithy.api#error": "server",
            "smithy.api#httpError": 500
          }
        },
        "com.amazonaws.licensemanager#SignedToken": {
          "type": "string",
          "traits": {
            "smithy.api#length": {
              "min": 4096
            }
          }
        },
        "com.amazonaws.licensemanager#StatusReasonMessage": {
          "type": "string",
          "traits":
{
            "smithy.api#length": {
              "min": 0,
              "max": 400
            },
            "smithy.api#pattern": "^[\\s\\S]+$"
          }
        },
        "com.amazonaws.licensemanager#String": {
          "type": "string"
        },
```

```
    "com.amazonaws.licensemanager#StringList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanager#String"
      }
    },
    "com.amazonaws.licensemanager#Tag": {
      "type": "structure",
      "members": {
        "Key": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Tag key.</p>"
          }
        },
        "Value": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation":
"<p>Tag value.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>Details about a tag for a license configuration.</p>"
      }
    },
    "com.amazonaws.licensemanager#TagKeyList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanager#String"
      }
    },
    "com.amazonaws.licensemanager#TagList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanager#Tag"
      }
    },
    "com.amazonaws.licensemanager#TagResource": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#TagResourceRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#TagResourceResponse"
      },
      "errors": [
```

```
            {
                "target":
 "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Adds the specified tags to the specified license configuration.</p>"
        }
    },
    "com.amazonaws.licensemanager#TagResourceRequest": {
        "type": "structure",
        "members": {
            "ResourceArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits":
 {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license
configuration.</p>",
                    "smithy.api#required": {}
                }
            },
            "Tags": {
                "target": "com.amazonaws.licensemanager#TagList",
                "traits": {
                    "smithy.api#documentation": "<p>One or more tags.</p>",
                    "smithy.api#required": {}
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#TagResourceResponse": {
        "type": "structure",
        "members": {},
```

```
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanager#TokenData": {
      "type": "structure",
      "members": {
        "TokenId": {
          "target": "com.amazonaws.licensemanager#String",
           "traits": {
            "smithy.api#documentation": "<p>Token ID.</p>"
          }
        },
        "TokenType": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Type of token generated. The supported value is
<code>REFRESH_TOKEN</code>.</p>"
          }
        },
        "LicenseArn": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>"
          }
        },
        "ExpirationTime": {
          "target": "com.amazonaws.licensemanager#ISO8601DateTime",
          "traits": {
            "smithy.api#documentation": "<p>Token expiration time, in ISO8601-UTC
 format.</p>"
          }
        },
        "TokenProperties": {
          "target": "com.amazonaws.licensemanager#MaxSize3StringList",
          "traits": {
            "smithy.api#documentation": "<p>Data specified by the caller.</p>"
          }
        },
        "RoleArns": {
          "target": "com.amazonaws.licensemanager#ArnList",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Names (ARN) of the roles included in the
token.</p>"
          }
        },
        "Status": {
          "target": "com.amazonaws.licensemanager#String",
```

```
            "traits": {
                "smithy.api#documentation": "<p>Token status. The possible values are
<code>AVAILABLE</code> and <code>DELETED</code>.</p>"
            }
          }
        },
        "traits": {

          "smithy.api#documentation": "<p>Describes a token.</p>"
        }
      },
      "com.amazonaws.licensemanager#TokenList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#TokenData"
        }
      },
      "com.amazonaws.licensemanager#TokenString": {
        "type": "string",
        "traits": {
          "smithy.api#length": {
            "min": 0,
            "max": 4096
          },
          "smithy.api#pattern": "^\\S+$"
        }
      },
      "com.amazonaws.licensemanager#TokenType": {
        "type": "enum",
        "members": {
          "REFRESH_TOKEN": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "REFRESH_TOKEN"
            }
          }
        }
      },
      "com.amazonaws.licensemanager#UnsupportedDigitalSignatureMethodException":
{
        "type": "structure",
        "members": {
          "Message": {
            "target": "com.amazonaws.licensemanager#Message"
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>The digital signature method is unsupported. Try your request
```

again. ",
            "smithy.api#error": "client",
            "smithy.api#httpError": 400
        }
    },
    "com.amazonaws.licensemanager#UntagResource": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#UntagResourceRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#UntagResourceResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
             },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": " Removes the specified tags from the specified license
configuration. "
        }
    },
    "com.amazonaws.licensemanager#UntagResourceRequest": {
        "type": "structure",
        "members": {
            "ResourceArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": " Amazon Resource Name (ARN) of the license
configuration. ",
                    "smithy.api#required": {}
                }
            },
            "TagKeys": {
                "target": "com.amazonaws.licensemanager#TagKeyList",

```
            "traits": {
              "smithy.api#documentation": "<p>Keys identifying the tags to remove.</p>",
              "smithy.api#required": {}
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#UntagResourceResponse": {
        "type": "structure",
        "members": {},
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#UpdateLicenseConfiguration": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#UpdateLicenseConfigurationRequest"
        },
        "output": {

"target": "com.amazonaws.licensemanager#UpdateLicenseConfigurationResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Modifies the attributes of an existing license configuration.</p>"
```

```
        }
      },
      "com.amazonaws.licensemanager#UpdateLicenseConfigurationRequest": {
        "type": "structure",
        "members": {
          "LicenseConfigurationArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license
configuration.</p>",
              "smithy.api#required": {}
            }
          },
          "LicenseConfigurationStatus": {
            "target": "com.amazonaws.licensemanager#LicenseConfigurationStatus",
            "traits": {
              "smithy.api#documentation": "<p>New status of the license configuration.</p>"
            }
          },
          "LicenseRules": {
            "target": "com.amazonaws.licensemanager#StringList",
            "traits": {

    "smithy.api#documentation": "<p>New license rule. The only rule that you can add after you create a license\n
    configuration is licenseAffinityToHost.</p>"
            }
          },
          "LicenseCount": {
            "target": "com.amazonaws.licensemanager#BoxLong",
            "traits": {
              "smithy.api#documentation": "<p>New number of licenses managed by the license
configuration.</p>"
            }
          },
          "LicenseCountHardLimit": {
            "target": "com.amazonaws.licensemanager#BoxBoolean",
            "traits": {
              "smithy.api#documentation": "<p>New hard limit of the number of available licenses.</p>"
            }
          },
          "Name": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>New name
 of the license configuration.</p>"
            }
          },
          "Description": {
```

```
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>New description of the license configuration.</p>"
            }
          },
          "ProductInformationList": {
            "target": "com.amazonaws.licensemanager#ProductInformationList",
            "traits": {
              "smithy.api#documentation": "<p>New product information.</p>"
            }
          },
          "DisassociateWhenNotFound": {
            "target": "com.amazonaws.licensemanager#BoxBoolean",
            "traits": {
              "smithy.api#documentation": "<p>When true, disassociates a resource when software is
uninstalled.</p>"
            }
          }
        },
        "traits":
{
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#UpdateLicenseConfigurationResponse": {
        "type": "structure",
        "members": {},
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#UpdateLicenseManagerReportGenerator": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#UpdateLicenseManagerReportGeneratorRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#UpdateLicenseManagerReportGeneratorResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
```

```
            },
            {
              "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
              "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
              "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
            },
            {
              "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
              "target": "com.amazonaws.licensemanager#ValidationException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Updates a report generator.</p>\n          <p>After you make changes to a report generator, it starts generating new reports within 60 minutes of being updated.</p>"
          }
        },
        "com.amazonaws.licensemanager#UpdateLicenseManagerReportGeneratorRequest": {
          "type": "structure",
          "members": {
            "LicenseManagerReportGeneratorArn": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the report generator to update.</p>",
                "smithy.api#required": {}
              }
            },
            "ReportGeneratorName": {
              "target": "com.amazonaws.licensemanager#ReportGeneratorName",
              "traits": {
                "smithy.api#documentation": "<p>Name of the report generator.</p>",
                "smithy.api#required": {}
              }
            },
            "Type": {
              "target": "com.amazonaws.licensemanager#ReportTypeList",
              "traits": {
                "smithy.api#documentation": "<p>Type of reports to generate. The following report types are supported:</p>\n          <ul>\n            <li>\n              <p>License configuration report - Reports the number and details of consumed licenses for a license configuration.</p>\n            </li>\n            <li>\n              <p>Resource report - Reports the tracked licenses and
```

```
resource consumption for a license configuration.</p>\n            </li>\n        </ul>",
                    "smithy.api#required": {}
                }
            },
            "ReportContext": {
                "target": "com.amazonaws.licensemanager#ReportContext",
                "traits": {
                    "smithy.api#documentation": "<p>The report context.</p>",
                    "smithy.api#required": {}
                }
            },
            "ReportFrequency": {
                "target": "com.amazonaws.licensemanager#ReportFrequency",
                "traits":
{
                    "smithy.api#documentation": "<p>Frequency by which reports are generated.</p>",
                    "smithy.api#required": {}
                }
            },
            "ClientToken": {
                "target": "com.amazonaws.licensemanager#ClientRequestToken",
                "traits": {
                    "smithy.api#documentation": "<p>Unique, case-sensitive identifier that you provide to ensure the
idempotency of the request.</p>",
                    "smithy.api#required": {}
                }
            },
            "Description": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Description of the report generator.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#UpdateLicenseManagerReportGeneratorResponse":
{
        "type": "structure",
        "members": {},
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#UpdateLicenseSpecificationsForResource": {
        "type": "operation",
```

```
        "input": {
            "target": "com.amazonaws.licensemanager#UpdateLicenseSpecificationsForResourceRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#UpdateLicenseSpecificationsForResourceResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },

            {
                "target": "com.amazonaws.licensemanager#InvalidResourceStateException"
            },
            {
                "target": "com.amazonaws.licensemanager#LicenseUsageException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Adds or removes the specified license configurations for the specified
Amazon Web Services resource.</p>\n          <p>You can update the license specifications of AMIs, instances, and
hosts.\n          You cannot update the license specifications for launch templates and CloudFormation templates, \n
 as they send license configurations to the operation that creates the resource.</p>"
        }
    },

    "com.amazonaws.licensemanager#UpdateLicenseSpecificationsForResourceRequest": {
        "type": "structure",
        "members": {
            "ResourceArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the Amazon Web Services
resource.</p>",
                    "smithy.api#required": {}
                }
```

```
        },
        "AddLicenseSpecifications": {
          "target": "com.amazonaws.licensemanager#LicenseSpecifications",
          "traits": {
            "smithy.api#documentation": "<p>ARNs of the license configurations to add.</p>"
          }
        },
        "RemoveLicenseSpecifications": {
          "target": "com.amazonaws.licensemanager#LicenseSpecifications",
          "traits": {
            "smithy.api#documentation":
"<p>ARNs of the license configurations to remove.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#UpdateLicenseSpecificationsForResourceResponse": {
      "type": "structure",
      "members": {},
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanager#UpdateServiceSettings": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#UpdateServiceSettingsRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#UpdateServiceSettingsResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
```

```
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Updates License Manager settings for the current Region.</p>"
        }
    },
    "com.amazonaws.licensemanager#UpdateServiceSettingsRequest": {
        "type": "structure",
        "members": {
            "S3BucketArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the Amazon S3 bucket where
the License
 Manager information is stored.</p>"
                }
            },
            "SnsTopicArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the Amazon SNS topic used
for License Manager alerts.</p>"
                }
            },
            "OrganizationConfiguration": {
                "target": "com.amazonaws.licensemanager#OrganizationConfiguration",
                "traits": {
                    "smithy.api#documentation": "<p>Enables integration with Organizations for cross-account
discovery.</p>"
                }
            },
            "EnableCrossAccountsDiscovery": {
                "target": "com.amazonaws.licensemanager#BoxBoolean",
                "traits": {
                    "smithy.api#documentation": "<p>Activates cross-account discovery.</p>"

      }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#UpdateServiceSettingsResponse": {
        "type": "structure",
        "members": {},
        "traits": {
```

```
            "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#UsageOperation": {
        "type": "string",
        "traits": {
          "smithy.api#length": {
            "min": 0,
            "max": 50
          }
        }
      },
      "com.amazonaws.licensemanager#ValidationException": {
        "type": "structure",
        "members": {
          "Message": {
            "target": "com.amazonaws.licensemanager#Message"
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>The provided input is not valid. Try your request again.</p>",

       "smithy.api#error": "client",
          "smithy.api#httpError": 400
        }
      }
    }
  }
```


1.364 gojsonschema 1.2.0

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1.365 mime-type 1.4.3

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1.367 mxj 2.7.0

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1.369 mnt-vol1-jenkins-workspace-starship-master-indigo-code-barcelona 1.5

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1.370 gofuzz 1.2.0

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1.371 go-playground-locales 0.14.1

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1.372 mitchellh-mapstructure 1.5.0

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1.376 zap-exp 1.27.0

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1.377 python-setuptools 56.0.0

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A. HISTORY OF THE SOFTWARE
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Python was created in the early 1990s by Guido van Rossum at Stichting Mathematisch Centrum (CWI, see http://www.cwi.nl) in the Netherlands as a successor of a language called ABC. Guido remains Python's principal author, although it includes many contributions from others.

In 1995, Guido continued his work on Python at the Corporation for National Research Initiatives (CNRI, see http://www.cnri.reston.va.us) in Reston, Virginia where he released several versions of the software.

In May 2000, Guido and the Python core development team moved to BeOpen.com to form the BeOpen PythonLabs team. In October of the same year, the PythonLabs team moved to Digital Creations (now Zope Corporation, see http://www.zope.com). In 2001, the Python Software Foundation (PSF, see http://www.python.org/psf/) was formed, a non-profit organization created specifically to own Python-related Intellectual Property. Zope Corporation is a sponsoring member
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All Python releases are Open Source (see http://www.opensource.org for the Open Source Definition). Historically, most, but not all, Python releases have also been GPL-compatible; the table below summarizes the various releases.

Release	Derived from	Year	Owner	GPL-compatible? (1)
0.9.0 thru 1.2		1991-1995	CWI	yes
1.3 thru 1.5.2	1.2	1995-1999	CNRI	yes
1.6	1.5.2	2000	CNRI	no
2.0	1.6	2000	BeOpen.com	no
1.6.1	1.6	2001	CNRI	yes (2)
2.1	2.0+1.6.1	2001	PSF	no
2.0.1	2.0+1.6.1	2001	PSF	yes
2.1.1	2.1+2.0.1	2001	PSF	yes
2.1.2	2.1.1	2002	PSF	yes
2.1.3	2.1.2	2002	PSF	yes

2.2 and above
2.1.1 2001-now PSF yes

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(2) According to Richard Stallman, 1.6.1 is not GPL-compatible, because its license has a choice of law clause. According to CNRI, however, Stallman's lawyer has told CNRI's lawyer that 1.6.1 is "not incompatible" with the GPL.

Thanks to the many outside volunteers who have worked under Guido's direction to make these releases possible.

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1.382 xuri-excelize 2.8.1

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1.383 colorama 0.2.7

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1.387 smart 1.5

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1.388 richardlehane-mscfb 1.0.4

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1.389 x-crypto 0.23.0

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1.390 google-go-cmp 0.6.0

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1.391 virtualenv 1.11.4

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1.392 montanaflynn-stats 0.7.1

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1.393 pyopenssl 18.0.0

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1.394 go-glob 1.0.0

1.394.1 Available under license :

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1.395 aws-sdk-go-v2-aws-protocol-eventstream 1.6.3

1.395.1 Available under license :

```
name: License Scan

on: [pull_request]

jobs:
 licensescan:
   name: License Scan
   runs-on: ubuntu-latest
   strategy:
     matrix:
       python-version: [3.9]

   steps:
     - name: Checkout target
       uses: actions/checkout@v2
```

```
        with:
          path: sdkbase
          ref: ${{ github.base_ref }}
      - name: Checkout this ref
        uses: actions/checkout@v2
        with:
          path: new-ref
          fetch-depth: 0
      - name: Get Diff
        run: git --git-dir ./new-ref/.git diff --name-only --diff-filter=ACMRT ${{ github.event.pull_request.base.sha }}
${{ github.sha }} > refDiffFiles.txt
      - name: Get Target Files
        run: git --git-dir ./sdkbase/.git ls-files | grep -xf refDiffFiles.txt - > targetFiles.txt
      - name: Checkout scancode
        uses: actions/checkout@v2
        with:
          repository: nexB/scancode-toolkit
          path: scancode-toolkit
          fetch-depth: 1
      - name: Set up Python ${{ matrix.python-version }}
         uses: actions/setup-python@v2
        with:
          python-version: ${{ matrix.python-version }}
      # ScanCode
      - name: Self-configure scancode
        working-directory: ./scancode-toolkit
        run: ./scancode --help
      - name: Run Scan code on target
        run: cat targetFiles.txt | while read filename; do echo ./sdkbase/$filename; done | xargs ./scancode-
toolkit/scancode -l -n 30 --json-pp - | grep short_name | sort | uniq >> old-licenses.txt
      - name: Run Scan code on pr ref
        run: cat refDiffFiles.txt | while read filename; do echo ./new-ref/$filename; done | xargs ./scancode-
toolkit/scancode -l -n 30 --json-pp - | grep short_name | sort | uniq >> new-licenses.txt
      # compare
      - name: License test
        run: if ! cmp old-licenses.txt new-licenses.txt; then echo "Licenses differ! Failing."; exit -1; else echo "Licenses
are the same. Success."; exit 0; fi
CreateLicense
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
  OperationInputValidation
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
 Build stack step
```

ClientRequestID
ComputeContentLength
UserAgent
AddTimeOffsetMiddleware
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
AddTimeOffsetMiddleware
RecordResponseTiming
RequestResponseLogger
ListReceivedLicenses
Initialize stack step
RegisterServiceMetadata
legacyEndpointContextSetter
SetLogger
Serialize stack step
setOperationInput
ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
UserAgent
AddTimeOffsetMiddleware
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader

setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
AddTimeOffsetMiddleware
RecordResponseTiming
RequestResponseLogger


```
{
  "smithy": "2.0",
  "shapes": {
    "com.amazonaws.licensemanagerlinuxsubscriptions#BoxInteger": {
      "type": "integer"
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#BoxLong": {
      "type": "long"
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#Filter": {
      "type": "structure",
      "members": {
        "Name": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The type of name to filter by.</p>"
          }
        },
        "Values": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringList",
          "traits": {
            "smithy.api#documentation": "<p>One or more values for the name to filter by.</p>"
          }
        },
        "Operator": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Operator",
           "traits": {
            "smithy.api#documentation": "<p>An operator for filtering results.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>A filter object that is used to return more specific results from a describe
operation.\n      Filters can be used to match a set of resources by specific criteria.</p>"
      }
    },
```

```
    "com.amazonaws.licensemanagerlinuxsubscriptions#FilterList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Filter"
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettings": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettingsRequest"
      },
      "output": {

       "target": "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettingsResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
        },
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
        },
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Lists the Linux subscriptions service settings.</p>",
        "smithy.api#http": {
          "code": 200,
          "method": "POST",
          "uri": "/subscription/GetServiceSettings"
        },
        "smithy.api#idempotent": {}
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettingsRequest":
{
      "type": "structure",
      "members": {}
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettingsResponse": {
      "type": "structure",
      "members": {
        "LinuxSubscriptionsDiscovery": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscovery",
          "traits": {
            "smithy.api#documentation": "<p>Lists if discovery has been enabled for Linux subscriptions.</p>"
```

```
            }
          },
          "LinuxSubscriptionsDiscoverySettings": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscoverySettings",
            "traits": {
              "smithy.api#documentation": "<p>Lists the settings defined for Linux subscriptions discovery. The
settings include if\n      Organizations integration has been enabled, and
 which Regions data will be aggregated from.</p>"
            }
          },
          "Status": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Status",
            "traits": {
              "smithy.api#documentation": "<p>Indicates the status of Linux subscriptions settings being
applied.</p>"
            }
          },
          "StatusMessage": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringMap",
            "traits": {
              "smithy.api#documentation": "<p>A message which details the Linux subscriptions service settings
current status.</p>"
            }
          },
          "HomeRegions": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringList",
            "traits": {
              "smithy.api#documentation": "<p>The Region in which License Manager displays
 the aggregated data for Linux\n      subscriptions.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#Instance": {
        "type": "structure",
        "members": {
          "AmiId": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The AMI ID used to launch the instance.</p>"
            }
          },
          "InstanceID": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The instance ID of the resource.</p>"
            }
          },
```

```
        "InstanceType": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The instance type of the resource.</p>"
          }

      },
        "AccountID": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The account ID which owns the instance.</p>"
          }
        },
        "Status": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The status of the instance.</p>"
          }
        },
        "Region": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The Region the instance is running in.</p>"
          }
        },
        "UsageOperation": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The usage operation of the instance. For more information, see For
 more information, see\n        <a href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/linux-
subscriptions-usage-operation.html\">Usage\n        operation values</a> in the <i>License Manager User
Guide</i>.</p>"
          }
        },
        "ProductCode": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ProductCodeList",
          "traits": {
            "smithy.api#documentation": "<p>The product code for the instance. For more information, see <a
href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/linux-subscriptions-usage-
operation.html\">Usage\n        operation values</a> in the <i>License Manager User Guide</i> .</p>"
          }
        },
        "LastUpdatedTime": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The time in which the last discovery
 updated the instance details.</p>"
          }
```

```
            },
            "SubscriptionName": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The name of the subscription being used by the instance.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#documentation": "<p>Details discovered information about a running instance using Linux subscriptions.</p>"
         }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#InstanceList": {
         "type": "list",
         "member": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Instance"
         }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException": {
         "type": "structure",
         "members": {
            "message": {
               "target": "smithy.api#String"
             }
         },
         "traits": {
            "smithy.api#documentation": "<p>An exception occurred with the service.</p>",
            "smithy.api#error": "server"
         }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#LicenseManagerLinuxSubscriptions": {
         "type": "service",
         "version": "2018-05-10",
         "operations": [
            {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettings"
            },
            {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstances"
            },
            {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptions"
            },
            {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettings"
            }
         ],
```

```
    "traits": {
        "aws.api#service": {
          "sdkId": "License Manager Linux Subscriptions",
          "arnNamespace": "license-manager-linux-subscriptions",
          "cloudTrailEventSource": "license-manager-linux-subscriptions.amazonaws.com"
        },
        "aws.auth#sigv4": {
          "name": "license-manager-linux-subscriptions"
        },
        "aws.protocols#restJson1": {},
        "smithy.api#cors": {
          "additionalAllowedHeaders": [
            "*",
            "content-type",
            "x-amz-content-sha256",
            "x-amz-user-agent",
            "x-amzn-platform-id",
            "x-amzn-trace-id",
            "content-length",
            "x-api-key",
            "authorization",
            "x-amz-date",

 "x-amz-security-token",
            "Access-Control-Allow-Headers",
            "Access-Control-Allow-Methods",
            "Access-Control-Allow-Origin"
          ],
          "additionalExposedHeaders": [
            "x-amzn-errortype",
            "x-amzn-requestid",
            "x-amzn-trace-id"
          ]
        },
        "smithy.api#documentation": "<p>With License Manager, you can discover and track your commercial
Linux subscriptions on running\n      Amazon EC2 instances.</p>",
        "smithy.api#title": "AWS License Manager Linux Subscriptions",
        "smithy.rules#endpointRuleSet": {
          "version": "1.0",
          "parameters": {
            "Region": {
              "builtIn": "AWS::Region",
              "required": false,
              "documentation": "The
 AWS region used to dispatch the request.",
              "type": "String"
            },
```

```
      "UseDualStack": {
        "builtIn": "AWS::UseDualStack",
        "required": true,
        "default": false,
        "documentation": "When true, use the dual-stack endpoint. If the configured endpoint does not
support dual-stack, dispatching the request MAY return an error.",
        "type": "Boolean"
      },
      "UseFIPS": {
        "builtIn": "AWS::UseFIPS",
        "required": true,
        "default": false,
        "documentation": "When true, send this request to the FIPS-compliant regional endpoint. If the
configured endpoint does not have a FIPS compliant endpoint, dispatching the request will return an error.",

     "type": "Boolean"
      },
      "Endpoint": {
        "builtIn": "SDK::Endpoint",
        "required": false,
        "documentation": "Override the endpoint used to send this request",
        "type": "String"
      }
    },
    "rules": [
      {
        "conditions": [
          {
            "fn": "isSet",
            "argv": [
              {
                "ref": "Endpoint"
              }
            ]
          }
        ],
        "type": "tree",
        "rules": [
          {

            "conditions": [
              {
                "fn": "booleanEquals",
                "argv": [
                  {
                    "ref": "UseFIPS"
                  },
                  true
```

```
                ]
              }
            ],
            "error": "Invalid Configuration: FIPS and custom endpoint are not supported",
            "type": "error"
          },
          {
            "conditions": [],
            "type": "tree",
            "rules": [
              {

           "conditions": [
                    {
                      "fn": "booleanEquals",
                      "argv": [
                        {
                          "ref": "UseDualStack"
                        },
                        true
                      ]
                    }
                  ],
                  "error": "Invalid Configuration: Dualstack and custom endpoint are not supported",
                  "type": "error"
                },
                {
                  "conditions": [],

       "endpoint": {
                    "url": {
                      "ref": "Endpoint"
                    },
                    "properties": {},
                    "headers": {}
                  },
                  "type": "endpoint"
                }
              ]
            }
          ]
        },
        {
          "conditions": [],
          "type": "tree",
          "rules": [
            {
              "conditions": [
```

```
                {
                  "fn": "isSet",

        "argv": [
                    {
                      "ref": "Region"
                    }
                  ]
                }
              ],
              "type": "tree",
              "rules": [
                {
                  "conditions": [
                    {
                      "fn": "aws.partition",
                      "argv": [
                        {
                          "ref": "Region"
                        }
                      ],

    "assign": "PartitionResult"
                    }
                  ],
                  "type": "tree",
                  "rules": [
                    {
                      "conditions": [
                        {
                          "fn": "booleanEquals",
                          "argv": [
                            {
                              "ref": "UseFIPS"
                            },
                            true
                          ]
                        },

                     {
                          "fn": "booleanEquals",
                          "argv": [
                            {
                              "ref": "UseDualStack"
                            },
                            true
                          ]
                        }
```

```
                                    ],
                                    "type": "tree",
                                    "rules": [
                                      {
                                        "conditions": [
                                          {

                                        "fn": "booleanEquals",
                                            "argv": [
                                              true,
                                              {
                                                "fn": "getAttr",
                                                "argv": [
                                                  {
                                                    "ref": "PartitionResult"
                                                  },
                                                  "supportsFIPS"
                                                ]

}
                                              ]
                                            },
                                            {
                                              "fn": "booleanEquals",
                                              "argv": [
                                                true,
                                                {
                                                  "fn": "getAttr",
                                                  "argv": [
                                                    {
                                                      "ref": "PartitionResult"
                                                    },

                                                   "supportsDualStack"
                                                    ]
                                                  }
                                                ]
                                              }
                                            ],
                                            "type": "tree",
                                            "rules": [
                                              {
                                                "conditions": [],
                                                "type": "tree",
                                                "rules": [
                                                  {
```

```
                "conditions": [],
                    "endpoint": {
                      "url": "https://license-manager-linux-subscriptions-
fips.{Region}.{PartitionResult#dualStackDnsSuffix}",
                      "properties": {},
                      "headers": {}
                    },
                    "type": "endpoint"
                  }
                ]
              }
            ]

        },
          {
            "conditions": [],
            "error": "FIPS and DualStack are enabled, but this partition does not support
one or both",
            "type": "error"
          }
        ]
      },
      {
        "conditions": [
          {
            "fn": "booleanEquals",
            "argv": [
              {

      "ref": "UseFIPS"
              },
              true
            ]
          }
        ],
        "type": "tree",
        "rules": [
          {
            "conditions": [
              {
                "fn": "booleanEquals",
                "argv": [
                  true,

  {
                    "fn": "getAttr",
                    "argv": [
                      {
```

```
                                        "ref": "PartitionResult"
                                    },
                                    "supportsFIPS"
                                ]
                            }
                        ]
                    }
                ],
                "type": "tree",

            "rules": [
                {
                    "conditions": [],
                    "type": "tree",
                    "rules": [
                        {
                            "conditions": [],
                            "endpoint": {
                                "url": "https://license-manager-linux-subscriptions-
fips.{Region}.{PartitionResult#dnsSuffix}",
                                "properties": {},
                                "headers": {}

                            },
                            "type": "endpoint"
                        }
                    ]
                }
            ]
        },
        {
            "conditions": [],
            "error": "FIPS is enabled but this partition does not support FIPS",
            "type": "error"
        }
    ]

},
        {
            "conditions": [
                {
                    "fn": "booleanEquals",
                    "argv": [
                        {
                            "ref": "UseDualStack"
                        },
                        true
                    ]
```

```
        }
      ],
      "type": "tree",
      "rules": [
        {

       "conditions": [
            {
              "fn": "booleanEquals",
              "argv": [
                true,
                {
                  "fn": "getAttr",
                  "argv": [
                    {
                      "ref": "PartitionResult"
                    },
                    "supportsDualStack"
                   ]
                }
              ]
            }
          ],
          "type": "tree",
          "rules": [
            {
              "conditions": [],
              "type": "tree",
              "rules": [
                {
                  "conditions": [],

                 "endpoint": {
                        "url": "https://license-manager-linux-
subscriptions.{Region}.{PartitionResult#dualStackDnsSuffix}",
                        "properties": {},
                        "headers": {}
                      },
                      "type": "endpoint"
                    }
                  ]
                }
              ]
            },

    {
                "conditions": [],
                "error": "DualStack is enabled but this partition does not support DualStack",
```

```
                                    "type": "error"
                                }
                            ]
                        },
                        {
                            "conditions": [],
                            "type": "tree",
                            "rules": [
                                {
                                    "conditions": [],
                                    "endpoint": {
                                        "url":
"https://license-manager-linux-subscriptions.{Region}.{PartitionResult#dnsSuffix}",
                                        "properties": {},
                                        "headers": {}
                                    },
                                    "type": "endpoint"
                                }
                            ]
                        }
                    ]
                }
            ]
        },
        {
            "conditions": [],
            "error": "Invalid Configuration: Missing Region",
            "type": "error"
        }
    ]
},
"smithy.rules#endpointTests": {
    "testCases": [
        {
            "documentation": "For region us-east-1 with FIPS enabled and DualStack enabled",
            "expect": {
                "endpoint": {
                    "url": "https://license-manager-linux-subscriptions-fips.us-east-1.api.aws"
                }
            },
            "params": {
                "Region": "us-east-1",
                "UseFIPS": true,
                "UseDualStack": true
            }
        },
```

```
        {
          "documentation": "For region us-east-1 with FIPS enabled and DualStack disabled",
          "expect": {

"endpoint": {
                "url": "https://license-manager-linux-subscriptions-fips.us-east-1.amazonaws.com"
            }
          },
          "params": {
            "Region": "us-east-1",
            "UseFIPS": true,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-east-1 with FIPS disabled and DualStack enabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-linux-subscriptions.us-east-1.api.aws"
            }
          },
          "params": {
            "Region": "us-east-1",
            "UseFIPS": false,
             "UseDualStack": true
          }
        },
        {
          "documentation": "For region us-east-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-linux-subscriptions.us-east-1.amazonaws.com"
            }
          },
          "params": {
            "Region": "us-east-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region cn-north-1 with FIPS enabled and DualStack enabled",
          "expect": {
            "endpoint": {

          "url": "https://license-manager-linux-subscriptions-fips.cn-north-1.api.amazonwebservices.com.cn"
            }
          },
```

```
      "params": {
        "Region": "cn-north-1",
        "UseFIPS": true,
        "UseDualStack": true
      }
    },
    {
      "documentation": "For region cn-north-1 with FIPS enabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-linux-subscriptions-fips.cn-north-1.amazonaws.com.cn"
        }
      },
      "params": {
        "Region": "cn-north-1",
        "UseFIPS": true,
         "UseDualStack": false
      }
    },
    {
      "documentation": "For region cn-north-1 with FIPS disabled and DualStack enabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-linux-subscriptions.cn-north-1.api.amazonwebservices.com.cn"
        }
      },
      "params": {
        "Region": "cn-north-1",
        "UseFIPS": false,
        "UseDualStack": true
      }
    },
    {
      "documentation": "For region cn-north-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint":
{
          "url": "https://license-manager-linux-subscriptions.cn-north-1.amazonaws.com.cn"
        }
      },
      "params": {
        "Region": "cn-north-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack enabled",
```

```
      "expect": {
        "endpoint": {
          "url": "https://license-manager-linux-subscriptions-fips.us-gov-east-1.api.aws"
        }
      },
      "params": {
        "Region": "us-gov-east-1",
        "UseFIPS": true,
         "UseDualStack": true
      }
    },
    {
      "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-linux-subscriptions-fips.us-gov-east-1.amazonaws.com"
        }
      },
      "params": {
        "Region": "us-gov-east-1",
        "UseFIPS": true,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region us-gov-east-1 with FIPS disabled and DualStack enabled",
      "expect": {
        "endpoint":
{
          "url": "https://license-manager-linux-subscriptions.us-gov-east-1.api.aws"
        }
      },
      "params": {
        "Region": "us-gov-east-1",
        "UseFIPS": false,
        "UseDualStack": true
      }
    },
    {
      "documentation": "For region us-gov-east-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-linux-subscriptions.us-gov-east-1.amazonaws.com"
        }
      },
      "params": {
        "Region": "us-gov-east-1",
        "UseFIPS": false,
```

```
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack enabled",
          "expect": {
            "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
          },
          "params": {
            "Region": "us-iso-east-1",
            "UseFIPS": true,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-linux-subscriptions-fips.us-iso-east-1.c2s.ic.gov"
            }
          },
          "params": {
            "Region": "us-iso-east-1",
            "UseFIPS": true,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack enabled",
          "expect": {
            "error": "DualStack is enabled but this partition does not support DualStack"
          },
          "params": {
            "Region": "us-iso-east-1",
            "UseFIPS": false,
            "UseDualStack": true
          }
        },
        {

    "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-linux-subscriptions.us-iso-east-1.c2s.ic.gov"
            }
          },
          "params": {
            "Region": "us-iso-east-1",
```

```
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack enabled",
          "expect": {
            "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
          },
          "params": {

         "Region": "us-isob-east-1",
            "UseFIPS": true,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-linux-subscriptions-fips.us-isob-east-1.sc2s.sgov.gov"
            }
          },
          "params": {
            "Region": "us-isob-east-1",
            "UseFIPS": true,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-isob-east-1 with FIPS disabled
and DualStack enabled",
          "expect": {
            "error": "DualStack is enabled but this partition does not support DualStack"
          },
          "params": {
            "Region": "us-isob-east-1",
            "UseFIPS": false,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-linux-subscriptions.us-isob-east-1.sc2s.sgov.gov"
            }
          },
```

```
            "params": {
              "Region": "us-isob-east-1",

        "UseFIPS": false,
              "UseDualStack": false
            }
          },
          {
            "documentation": "For custom endpoint with region set and fips disabled and dualstack disabled",
            "expect": {
              "endpoint": {
                "url": "https://example.com"
              }
            },
            "params": {
              "Region": "us-east-1",
              "UseFIPS": false,
              "UseDualStack": false,
              "Endpoint": "https://example.com"
            }
          },
          {
            "documentation": "For custom endpoint with region not set and fips disabled and dualstack
disabled",

          "expect": {
              "endpoint": {
                "url": "https://example.com"
              }
            },
            "params": {
              "UseFIPS": false,
              "UseDualStack": false,
              "Endpoint": "https://example.com"
            }
          },
          {
            "documentation": "For custom endpoint with fips enabled and dualstack disabled",
            "expect": {
              "error": "Invalid Configuration: FIPS and custom endpoint are not supported"
            },
            "params": {
              "Region": "us-east-1",
              "UseFIPS": true,
              "UseDualStack": false,

          "Endpoint": "https://example.com"
            }
```

```
            },
            {
              "documentation": "For custom endpoint with fips disabled and dualstack enabled",
              "expect": {
                "error": "Invalid Configuration: Dualstack and custom endpoint are not supported"
              },
              "params": {
                "Region": "us-east-1",
                "UseFIPS": false,
                "UseDualStack": true,
                "Endpoint": "https://example.com"
              }
            },
            {
              "documentation": "Missing region",
              "expect": {
                "error": "Invalid Configuration: Missing Region"
              }

     }
          ],
          "version": "1.0"
       }
    }
},
"com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscovery": {
    "type": "string",
    "traits": {
       "smithy.api#enum": [
          {
            "name": "Enabled",
            "value": "Enabled",
            "documentation": "Enabled LinuxSubscriptionsDiscovery"
          },
          {
            "name": "Disabled",
            "value": "Disabled",
            "documentation": "Disabled LinuxSubscriptionsDiscovery"
          }
       ]
    }
},
"com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscoverySettings": {
    "type": "structure",
    "members": {
       "SourceRegions": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringList",
```

```
                "traits": {
                    "smithy.api#documentation": "<p>The Regions in which to discover data for Linux
subscriptions.</p>",
                    "smithy.api#required": {}
                }
            },
            "OrganizationIntegration": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#OrganizationIntegration",
                "traits": {
                    "smithy.api#documentation": "<p>Details if you have enabled resource discovery across your
accounts in Organizations.</p>",
                    "smithy.api#required": {}
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>Lists the settings defined for discovering Linux subscriptions.</p>"
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstances": {
        "type":
 "operation",
        "input": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstancesRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstancesResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
            },
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
            },
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists the running Amazon EC2 instances that were discovered with
commercial Linux\n      subscriptions.</p>",
            "smithy.api#http": {

       "code": 200,
                "method": "POST",
                "uri": "/subscription/ListLinuxSubscriptionInstances"
            },
```

```
            "smithy.api#idempotent": {},
            "smithy.api#paginated": {
               "inputToken": "NextToken",
               "outputToken": "NextToken",
               "pageSize": "MaxResults",
               "items": "Instances"
            }
         }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstancesRequest": {
         "type": "structure",
         "members": {
            "Filters": {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#FilterList",
               "traits": {
                  "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those
that match one or\n      more sets of key-value pairs that you specify. For example, you can filter by
 the name of\n      <code>AmiID</code> with an optional operator to see subscriptions that match, partially\n
match, or don't match a certain Amazon Machine Image (AMI) ID.</p>\n      <p>The valid names for this filter
are:</p>\n      <ul>\n      <li>\n      <p>\n      <code>AmiID</code>\n      </p>\n
</li>\n      <li>\n      <p>\n      <code>InstanceID</code>\n      </p>\n      </li>\n
<li>\n      <p>\n      <code>AccountID</code>\n      </p>\n      </li>\n      <li>\n
<p>\n      <code>Status</code>\n      </p>\n      </li>\n      <li>\n      <p>\n
<code>Region</code>\n      </p>\n      </li>\n      <li>\n      <p>\n
<code>UsageOperation</code>\n      </p>\n      </li>\n      <li>\n
   <p>\n      <code>ProductCode</code>\n      </p>\n      </li>\n      <li>\n      <p>\n
    <code>InstanceType</code>\n      </p>\n      </li>\n      </ul>\n      <p>The valid Operators for this
filter are:</p>\n      <ul>\n      <li>\n      <p>\n      <code>contains</code>\n      </p>\n
</li>\n      <li>\n      <p>\n      <code>equals</code>\n      </p>\n      </li>\n      <li>\n
      <p>\n      <code>Notequal</code>\n      </p>\n      </li>\n      </ul>"
               }
            },
            "MaxResults": {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#BoxInteger",
               "traits": {
                  "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"

      }
            },
            "NextToken": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>Token for the next set of results.</p>",
                  "smithy.api#length": {
                     "min": 1,
                     "max": 16384
                  }
               }
```

```
            }
        },
        "traits": {
            "smithy.api#documentation": "NextToken length limit is half of ddb accepted limit.\nIncrease this limit if parameters in request increases."
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstancesResponse": {
        "type": "structure",
        "members": {
            "Instances": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InstanceList",
                "traits": {
                    "smithy.api#documentation":
"<p>An array that contains instance objects.</p>"
                }
            },
            "NextToken": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>Token for the next set of results.</p>"
                }
            }
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptions": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionsRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionsResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
            },
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
             },
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists the Linux subscriptions that have been discovered. If you have linked your\n      organization, the returned results will include data aggregated across your accounts in\n Organizations.</p>",
```

```
            "smithy.api#http": {
               "code": 200,
               "method": "POST",
               "uri": "/subscription/ListLinuxSubscriptions"
            },
            "smithy.api#idempotent": {},
            "smithy.api#paginated": {
               "inputToken": "NextToken",
               "outputToken": "NextToken",
               "pageSize": "MaxResults",
               "items": "Subscriptions"
            }

         }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionsRequest": {
         "type": "structure",
         "members": {
            "Filters": {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#FilterList",
               "traits": {
                  "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those
that match one or\n      more sets of key-value pairs that you specify. For example, you can filter by the name of\n
 <code>Subscription</code> with an optional operator to see subscriptions that match,\n      partially match, or don't
match a certain subscription's name.</p>\n         <p>The valid names for this filter are:</p>\n         <ul>\n
<li>\n            <p>\n               <code>Subscription</code>\n            </p>\n         </li>\n         </ul>\n
<p>The valid Operators for this filter are:</p>\n
         <ul>\n         <li>\n            <p>\n               <code>contains</code>\n            </p>\n         </li>\n
<li>\n            <p>\n               <code>equals</code>\n            </p>\n         </li>\n         <li>\n            <p>\n
            <code>Notequal</code>\n            </p>\n         </li>\n         </ul>"
               }
            },
            "MaxResults": {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#BoxInteger",
               "traits": {
                  "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
               }
            },
            "NextToken": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>Token for the next set of results.</p>",
                  "smithy.api#length": {

                     "min": 1,
                     "max": 16384
                  }
               }
```

```
            }
        },
        "traits": {
            "smithy.api#documentation": "NextToken length limit is half of ddb accepted limit.\nIncrease this limit if
parameters in request increases."
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionsResponse": {
        "type": "structure",
        "members": {
            "Subscriptions": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionList",
                "traits": {
                    "smithy.api#documentation": "<p>An array that contains subscription objects.</p>"
                }
            },
            "NextToken": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>Token for
 the next set of results.</p>"
                }
            }
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#Operator": {
        "type": "string",
        "traits": {
            "smithy.api#enum": [
                {
                    "name": "EQUAL",
                    "value": "Equal",
                    "documentation": "Equal operator"
                },
                {
                    "name": "NOT_EQUAL",
                    "value": "NotEqual",
                    "documentation": "Not equal operator"
                },
                {
                    "name": "CONTAINS",
                    "value": "Contains",
                    "documentation": "Contains operator"
                }
            ],
            "smithy.api#length": {
                "min": 1,
                "max": 20
```

```
        }
      }
    },

"com.amazonaws.licensemanagerlinuxsubscriptions#OrganizationIntegration": {
      "type": "string",
      "traits": {
        "smithy.api#enum": [
          {
            "name": "Enabled",
            "value": "Enabled",
            "documentation": "Enabled OrganizationIntegration"
          },
          {
            "name": "Disabled",
            "value": "Disabled",
            "documentation": "Disabled OrganizationIntegration"
          }
        ]
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ProductCodeList": {
      "type": "list",
      "member": {
        "target": "smithy.api#String"
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#Status": {
      "type": "string",
      "traits": {
        "smithy.api#enum": [

   {
            "name": "InProgress",
            "value": "InProgress",
            "documentation": "InProgress status"
          },
          {
            "name": "Completed",
            "value": "Completed",
            "documentation": "Completed status"
          },
          {
            "name": "Successful",
            "value": "Successful",
            "documentation": "Successful status"
          },
          {
```

```
                "name": "Failed",
                "value": "Failed",
                "documentation": "Failed status"
              }
            ]
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#StringList": {
          "type": "list",
          "member": {
            "target": "smithy.api#String",
            "traits":
{
              "smithy.api#length": {
                "min": 1,
                "max": 100
              }
            }
          },
          "traits": {
            "smithy.api#length": {
              "min": 1,
              "max": 100
            },
            "smithy.api#uniqueItems": {}
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#StringMap": {
          "type": "map",
          "key": {
            "target": "smithy.api#String"
          },
          "value": {
            "target": "smithy.api#String"
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#Subscription": {
          "type": "structure",
          "members": {
            "Name": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The name of the subscription.</p>"

          }
            },
            "Type": {
              "target": "smithy.api#String",
```

```
            "traits": {
                "smithy.api#documentation": "<p>The type of subscription. The type can be subscription-included with Amazon EC2, Bring Your Own\n      Subscription model (BYOS), or from the Amazon Web Services Marketplace. Certain subscriptions may use licensing from the\n      Amazon Web Services Marketplace as well as OS licensing from Amazon EC2 or BYOS.</p>"
            }
          },
          "InstanceCount": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#BoxLong",
            "traits": {
              "smithy.api#documentation": "<p>The total amount of running instances using this subscription.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>An object which details a discovered Linux subscription.</p>"
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Subscription"
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException": {
        "type": "structure",
        "members": {
          "message": {
            "target": "smithy.api#String"
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>The request was denied due to request throttling.</p>",
          "smithy.api#error": "client"
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettings": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettingsRequest"
        },

      "output": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettingsResponse"
        },
        "errors": [
          {
```

```
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
            },
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
            },
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Updates the service settings for Linux subscriptions.</p>",
            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/subscription/UpdateServiceSettings"
            },
            "smithy.api#idempotent": {}
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettingsRequest":
{
        "type": "structure",
        "members": {
            "LinuxSubscriptionsDiscovery": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscovery",
                "traits": {
                    "smithy.api#documentation": "<p>Describes if the discovery of Linux subscriptions is enabled.</p>",
                    "smithy.api#required": {}
                }
            },
            "LinuxSubscriptionsDiscoverySettings": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscoverySettings",
                "traits": {
                    "smithy.api#documentation": "<p>The settings defined for Linux subscriptions discovery. The
settings include if Organizations\n      integration has been enabled, and which Regions data will be aggregated
from.</p>",

  "smithy.api#required": {}
                }
            },
            "AllowUpdate": {
                "target": "smithy.api#Boolean",
                "traits": {
                    "smithy.api#documentation": "<p>Describes if updates are allowed to the service settings for Linux
subscriptions. If you\n      allow updates, you can aggregate Linux subscription data in more than one home
Region.</p>"
                }
            }
```

```
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettingsResponse": {
        "type": "structure",
        "members": {
          "LinuxSubscriptionsDiscovery": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscovery",
            "traits": {
              "smithy.api#documentation": "<p>Lists if discovery has been enabled for Linux subscriptions.</p>"
            }
          },

         "LinuxSubscriptionsDiscoverySettings": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscoverySettings",
            "traits": {
              "smithy.api#documentation": "<p>The settings defined for Linux subscriptions discovery. The
settings include if Organizations\n      integration has been enabled, and which Regions data will be aggregated
from.</p>"
            }
          },
          "Status": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Status",
            "traits": {
              "smithy.api#documentation": "<p>Indicates the status of Linux subscriptions settings being
applied.</p>"
            }
          },
          "StatusMessage": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringMap",
            "traits": {
              "smithy.api#documentation":
 "<p>A message which details the Linux subscriptions service settings current status.</p>"
            }
          },
          "HomeRegions": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringList",
            "traits": {
              "smithy.api#documentation": "<p>The Region in which License Manager displays the aggregated
data for Linux\n      subscriptions.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException": {
        "type": "structure",
        "members": {
          "message": {
            "target": "smithy.api#String"
```

```
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>The provided input is not valid. Try your request again.</p>",
            "smithy.api#error": "client"
        }
    }
  }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Checks out the specified license.
//
// If the account that created the license is the same that is performing the
// check out, you must specify the account as the beneficiary.
func (c *Client) CheckoutLicense(ctx context.Context, params *CheckoutLicenseInput, optFns ...func(*Options))
(*CheckoutLicenseOutput, error) {
 if params == nil {
  params = &CheckoutLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "CheckoutLicense", params, optFns,
c.addOperationCheckoutLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*CheckoutLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type CheckoutLicenseInput struct {

 //
 Checkout type.
 //
```

```
    // This member is required.
    CheckoutType types.CheckoutType

    // Unique, case-sensitive identifier that you provide to ensure the idempotency of
    // the request.
    //
    // This member is required.
    ClientToken *string

    // License entitlements.
    //
    // This member is required.
    Entitlements []types.EntitlementData

    // Key fingerprint identifying the license.
    //
    // This member is required.
    KeyFingerprint *string

    // Product SKU.
    //
    // This member is required.
    ProductSKU *string

    // License beneficiary.
    Beneficiary *string

    // Node ID.
    NodeId *string

    noSmithyDocumentSerde
}

type CheckoutLicenseOutput struct {

    // Checkout type.
    CheckoutType types.CheckoutType

    // Allowed license entitlements.
    EntitlementsAllowed []types.EntitlementData

    // Date and time at which the license checkout expires.
    Expiration *string

    // Date and time at which the license checkout is issued.
    IssuedAt *string

    // Amazon Resource Name (ARN) of the checkout license.
```

```
LicenseArn
*string

// License consumption token.
LicenseConsumptionToken *string

// Node ID.
NodeId *string

// Signed token.
SignedToken *string

// Metadata pertaining to the operation's result.
ResultMetadata middleware.Metadata

noSmithyDocumentSerde
}

func (c *Client) addOperationCheckoutLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpCheckoutLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpCheckoutLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "CheckoutLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack,
 options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
```

```
 return err
}
if err = addComputePayloadSHA256(stack); err != nil {
 return err
}
if err = addRetry(stack, options); err != nil {
 return err
}
if err = addRawResponseToMetadata(stack); err != nil {
 return err
}
if err = addRecordResponseTiming(stack); err != nil {
 return err
}
if err = addClientUserAgent(stack, options); err != nil {
 return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
 return err
}
if err = addTimeOffsetBuild(stack, c); err != nil {
 return err
}
if err = addUserAgentRetryMode(stack,
options); err != nil {
 return err
}
if err = addOpCheckoutLicenseValidationMiddleware(stack); err != nil {
 return err
}
if err = stack.Initialize.Add(newServiceMetadataMiddleware_opCheckoutLicense(options.Region),
middleware.Before); err != nil {
 return err
}
if err = addRecursionDetection(stack); err != nil {
 return err
}
if err = addRequestIDRetrieverMiddleware(stack); err != nil {
 return err
}
if err = addResponseErrorMiddleware(stack); err != nil {
 return err
```

```
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opCheckoutLicense(region string) *awsmiddleware.RegisterServiceMetadata
{
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName: "CheckoutLicense",
 }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Creates a license.
func (c *Client) CreateLicense(ctx context.Context, params *CreateLicenseInput, optFns ...func(*Options))
(*CreateLicenseOutput, error) {
 if params == nil {
  params = &CreateLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "CreateLicense", params, optFns,
c.addOperationCreateLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*CreateLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}
```

```
type CreateLicenseInput struct {

 // License beneficiary.
 //
 // This member is required.
 Beneficiary *string

 // Unique, case-sensitive identifier that you provide to ensure the idempotency of
 // the request.
 //
 //
 This member is required.
 ClientToken *string

 // Configuration for consumption of the license. Choose a provisional
 // configuration for workloads running with continuous connectivity. Choose a
 // borrow configuration for workloads with offline usage.
 //
 // This member is required.
 ConsumptionConfiguration *types.ConsumptionConfiguration

 // License entitlements.
 //
 // This member is required.
 Entitlements []types.Entitlement

 // Home Region for the license.
 //
 // This member is required.
 HomeRegion *string

 // License issuer.
 //
 // This member is required.
 Issuer *types.Issuer

 // License name.
 //
 // This member is required.
 LicenseName *string

 // Product name.
 //
 // This member is required.
 ProductName *string

 // Product SKU.
```

```
 //
 // This member is required.
 ProductSKU *string

 // Date and time range during which the license is valid, in ISO8601-UTC format.
 //
 // This member is required.
 Validity *types.DatetimeRange

 // Information about
 the license.
 LicenseMetadata []types.Metadata

 noSmithyDocumentSerde
}

type CreateLicenseOutput struct {

 // Amazon Resource Name (ARN) of the license.
 LicenseArn *string

 // License status.
 Status types.LicenseStatus

 // License version.
 Version *string

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationCreateLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpCreateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpCreateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "CreateLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }
```

```
if
err = addlegacyEndpointContextSetter(stack, options); err != nil {
 return err
}
if err = addSetLoggerMiddleware(stack, options); err != nil {
 return err
}
if err = addClientRequestID(stack); err != nil {
 return err
}
if err = addComputeContentLength(stack); err != nil {
 return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
 return err
}
if err = addComputePayloadSHA256(stack); err != nil {
 return err
}
if err = addRetry(stack, options); err != nil {
 return err
}
if err = addRawResponseToMetadata(stack); err != nil {
 return err
}
if err = addRecordResponseTiming(stack); err != nil {
 return err
}
if err = addClientUserAgent(stack, options); err != nil {
 return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
 return
err
}
if err = addTimeOffsetBuild(stack, c); err != nil {
 return err
}
if err = addUserAgentRetryMode(stack, options); err != nil {
 return err
}
```

```
 if err = addOpCreateLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opCreateLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opCreateLicense(region string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:    ServiceID,
  OperationName:
 "CreateLicense",
 }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package grafana

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/grafana/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Removes the Grafana Enterprise license from a workspace.
func (c *Client) DisassociateLicense(ctx context.Context, params *DisassociateLicenseInput, optFns
```

```
...func(*Options)) (*DisassociateLicenseOutput, error) {
 if params == nil {
  params = &DisassociateLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "DisassociateLicense", params, optFns,
c.addOperationDisassociateLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*DisassociateLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type DisassociateLicenseInput struct {

 // The type of license to remove from the workspace.
 //
 // This member is required.
 LicenseType types.LicenseType

 //
 The ID of the workspace to remove the Grafana Enterprise license from.
 //
 // This member is required.
 WorkspaceId *string

 noSmithyDocumentSerde
}

type DisassociateLicenseOutput struct {

 // A structure containing information about the workspace.
 //
 // This member is required.
 Workspace *types.WorkspaceDescription

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationDisassociateLicenseMiddlewares(stack *middleware.Stack, options Options) (err
error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
```

```
 return err
}
err = stack.Serialize.Add(&awsRestjson1_serializeOpDisassociateLicense{}, middleware.After)
if err != nil {
 return err
}
err = stack.Deserialize.Add(&awsRestjson1_deserializeOpDisassociateLicense{}, middleware.After)
if err != nil {
 return err
}
if err := addProtocolFinalizerMiddlewares(stack, options, "DisassociateLicense");
err != nil {
 return fmt.Errorf("add protocol finalizers: %v", err)
}

if err = addlegacyEndpointContextSetter(stack, options); err != nil {
 return err
}
if err = addSetLoggerMiddleware(stack, options); err != nil {
 return err
}
if err = addClientRequestID(stack); err != nil {
 return err
}
if err = addComputeContentLength(stack); err != nil {
 return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
 return err
}
if err = addComputePayloadSHA256(stack); err != nil {
 return err
}
if err = addRetry(stack, options); err != nil {
 return err
}
if err = addRawResponseToMetadata(stack); err != nil {
 return err
}
if err = addRecordResponseTiming(stack); err != nil {
 return err
}
if err = addClientUserAgent(stack, options); err != nil {
 return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
```

```
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil
 {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
  return err
 }
 if err = addUserAgentRetryMode(stack, options); err != nil {
  return err
 }
 if err = addOpDisassociateLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opDisassociateLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opDisassociateLicense(region string)
*awsmiddleware.RegisterServiceMetadata
 {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:    ServiceID,
  OperationName: "DisassociateLicense",
 }
}
```

CheckoutLicense
Initialize stack step
RegisterServiceMetadata
legacyEndpointContextSetter
SetLogger
OperationInputValidation
Serialize stack step
setOperationInput
ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
UserAgent
AddTimeOffsetMiddleware
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
AddTimeOffsetMiddleware
RecordResponseTiming
RequestResponseLogger
DisassociateLicense
Initialize stack step
RegisterServiceMetadata
legacyEndpointContextSetter
SetLogger
OperationInputValidation
Serialize stack step
setOperationInput
ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID

ComputeContentLength
UserAgent
AddTimeOffsetMiddleware
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
AddTimeOffsetMiddleware
RecordResponseTiming
RequestResponseLogger
CheckoutBorrowLicense
Initialize stack step
RegisterServiceMetadata
legacyEndpointContextSetter
SetLogger
OperationInputValidation
Serialize stack step
setOperationInput
ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
UserAgent
AddTimeOffsetMiddleware
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader

setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
AddTimeOffsetMiddleware
RecordResponseTiming
RequestResponseLogger
AssociateLicense
Initialize stack step
RegisterServiceMetadata
legacyEndpointContextSetter
SetLogger
OperationInputValidation
Serialize stack step
setOperationInput
ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
UserAgent
AddTimeOffsetMiddleware
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
AddTimeOffsetMiddleware
RecordResponseTiming
RequestResponseLogger

```
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Lists received licenses.
func (c *Client) ListReceivedLicenses(ctx context.Context, params *ListReceivedLicensesInput, optFns
...func(*Options)) (*ListReceivedLicensesOutput, error) {
 if params == nil {
  params = &ListReceivedLicensesInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "ListReceivedLicenses", params, optFns,
c.addOperationListReceivedLicensesMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*ListReceivedLicensesOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type ListReceivedLicensesInput struct {

 // Filters to scope the results. The following filters are supported:
 //
 //   - ProductSKU
 //
 //   - Status
 //
 //
   - Fingerprint
 //
 //   - IssuerName
 //
 //   - Beneficiary
 Filters []types.Filter

 // Amazon Resource Names (ARNs) of the licenses.
```

```
 LicenseArns []string

 // Maximum number of results to return in a single call.
 MaxResults *int32

 // Token for the next set of results.
 NextToken *string

 noSmithyDocumentSerde
}

type ListReceivedLicensesOutput struct {

 // Received license details.
 Licenses []types.GrantedLicense

 // Token for the next set of results.
 NextToken *string

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationListReceivedLicensesMiddlewares(stack *middleware.Stack, options Options) (err
error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpListReceivedLicenses{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpListReceivedLicenses{},
 middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "ListReceivedLicenses"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
```

```
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err
 = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
  return err
 }
 if err = addUserAgentRetryMode(stack, options); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opListReceivedLicenses(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
```

```
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opListReceivedLicenses(region
 string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName: "ListReceivedLicenses",
 }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Gets detailed information about the specified license.
func (c *Client) GetLicense(ctx context.Context, params *GetLicenseInput, optFns ...func(*Options))
(*GetLicenseOutput, error) {
 if params == nil {
  params = &GetLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "GetLicense", params, optFns,
c.addOperationGetLicenseMiddlewares)
 if err != nil {
  return nil, err
 }
```

```
 out := result.(*GetLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type GetLicenseInput struct {

 // Amazon Resource Name (ARN) of the license.
 //
 // This member is required.
 LicenseArn *string

 // License version.
 Version *string

 noSmithyDocumentSerde
}

type
 GetLicenseOutput struct {

 // License details.
 License *types.License

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationGetLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpGetLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpGetLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "GetLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
```

```
 return err
}
if err = addSetLoggerMiddleware(stack, options); err != nil {
 return err
}
if err = addClientRequestID(stack); err
!= nil {
 return err
}
if err = addComputeContentLength(stack); err != nil {
 return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
 return err
}
if err = addComputePayloadSHA256(stack); err != nil {
 return err
}
if err = addRetry(stack, options); err != nil {
 return err
}
if err = addRawResponseToMetadata(stack); err != nil {
 return err
}
if err = addRecordResponseTiming(stack); err != nil {
 return err
}
if err = addClientUserAgent(stack, options); err != nil {
 return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
 return err
}
if err = addTimeOffsetBuild(stack, c); err != nil {
 return err
}
if err = addUserAgentRetryMode(stack, options); err != nil {
 return err
}
if err = addOpGetLicenseValidationMiddleware(stack);
err != nil {
 return err
```

```
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opGetLicense(options.Region), middleware.Before);
err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opGetLicense(region string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:    ServiceID,
  OperationName: "GetLicense",
 }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package grafana

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/grafana/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Assigns a Grafana Enterprise license to a workspace. To upgrade, you must use
// ENTERPRISE for the licenseType , and pass in a valid Grafana Labs token for the
// grafanaToken . Upgrading to Grafana Enterprise incurs additional fees. For more
// information, see [Upgrade a workspace to Grafana Enterprise].
//
```

```
// [Upgrade a workspace to Grafana Enterprise]: https://docs.aws.amazon.com/grafana/latest/userguide/upgrade-to-Grafana-Enterprise.html
func (c *Client) AssociateLicense(ctx context.Context, params *AssociateLicenseInput, optFns ...func(*Options)) (*AssociateLicenseOutput, error) {
 if params == nil {
  params = &AssociateLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx,
 "AssociateLicense", params, optFns, c.addOperationAssociateLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*AssociateLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type AssociateLicenseInput struct {

 // The type of license to associate with the workspace.
 //
 // Amazon Managed Grafana workspaces no longer support Grafana Enterprise free
 // trials.
 //
 // This member is required.
 LicenseType types.LicenseType

 // The ID of the workspace to associate the license with.
 //
 // This member is required.
 WorkspaceId *string

 // A token from Grafana Labs that ties your Amazon Web Services account with a
 // Grafana Labs account. For more information, see [Link your account with Grafana Labs].
 //
 // [Link your account with Grafana Labs]: https://docs.aws.amazon.com/grafana/latest/userguide/upgrade-to-Grafana-Enterprise.html#AMG-workspace-register-enterprise
 GrafanaToken *string

 noSmithyDocumentSerde
}

type AssociateLicenseOutput
 struct {

 // A structure containing data about the workspace.
```

```
//
// This member is required.
Workspace *types.WorkspaceDescription

// Metadata pertaining to the operation's result.
ResultMetadata middleware.Metadata

noSmithyDocumentSerde
}

func (c *Client) addOperationAssociateLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsRestjson1_serializeOpAssociateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsRestjson1_deserializeOpAssociateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "AssociateLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack,
 options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
```

```
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
  return err
 }
 if err = addUserAgentRetryMode(stack,
 options); err != nil {
  return err
 }
 if err = addOpAssociateLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opAssociateLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
```

```
}

func newServiceMetadataMiddleware_opAssociateLicense(region string)
*awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName: "AssociateLicense",
 }
}
ListLicenses
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
 Build stack step
  ClientRequestID
  ComputeContentLength
  UserAgent
  AddTimeOffsetMiddleware
  RecursionDetection
 Finalize stack step
  ResolveAuthScheme
  GetIdentity
  ResolveEndpointV2
  disableHTTPS
  ComputePayloadHash
  Retry
  RetryMetricsHeader
  setLegacyContextSigningOptions
  Signing
 Deserialize stack step
  AddRawResponseToMetadata
  ErrorCloseResponseBody
  CloseResponseBody
  ResponseErrorWrapper
  RequestIDRetriever
  OperationDeserializer
  AddTimeOffsetMiddleware
  RecordResponseTiming
  RequestResponseLogger
AWS SDK for Go
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```

```
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Deletes the specified license.
func (c *Client) DeleteLicense(ctx context.Context, params *DeleteLicenseInput, optFns ...func(*Options))
(*DeleteLicenseOutput, error) {
 if params == nil {
  params = &DeleteLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "DeleteLicense", params, optFns,
c.addOperationDeleteLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*DeleteLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type DeleteLicenseInput struct {

 // Amazon Resource Name (ARN) of the license.
 //
 // This member is required.
 LicenseArn *string

 // Current version of the license.
 //
 // This member is required.
 SourceVersion
 *string

 noSmithyDocumentSerde
}

type DeleteLicenseOutput struct {
```

```
// Date when the license is deleted.
DeletionDate *string

// License status.
Status types.LicenseDeletionStatus

// Metadata pertaining to the operation's result.
ResultMetadata middleware.Metadata

noSmithyDocumentSerde
}

func (c *Client) addOperationDeleteLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpDeleteLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpDeleteLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "DeleteLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err !=
 nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
```

```
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil
 {
  return err
 }
 if err = addUserAgentRetryMode(stack, options); err != nil {
  return err
 }
 if err = addOpDeleteLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opDeleteLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
```

```
 return err
 }
 return nil
}

func newServiceMetadataMiddleware_opDeleteLicense(region string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName: "DeleteLicense",
 }
}
DeleteLicense
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
  OperationInputValidation
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
 Build stack step
  ClientRequestID
  ComputeContentLength
  UserAgent
  AddTimeOffsetMiddleware
  RecursionDetection
 Finalize stack step
  ResolveAuthScheme
  GetIdentity
  ResolveEndpointV2
  disableHTTPS
  ComputePayloadHash
  Retry
  RetryMetricsHeader
  setLegacyContextSigningOptions
  Signing
 Deserialize stack step
  AddRawResponseToMetadata
  ErrorCloseResponseBody
  CloseResponseBody
  ResponseErrorWrapper
  RequestIDRetriever
  OperationDeserializer
  AddTimeOffsetMiddleware
  RecordResponseTiming
  RequestResponseLogger
```

```
GetLicense
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
  OperationInputValidation
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
 Build stack step
  ClientRequestID
  ComputeContentLength
  UserAgent
  AddTimeOffsetMiddleware
  RecursionDetection
 Finalize stack step
  ResolveAuthScheme
  GetIdentity
  ResolveEndpointV2
  disableHTTPS
  ComputePayloadHash
  Retry
  RetryMetricsHeader
  setLegacyContextSigningOptions
  Signing
 Deserialize stack step
  AddRawResponseToMetadata
  ErrorCloseResponseBody
  CloseResponseBody
  ResponseErrorWrapper
  RequestIDRetriever
  OperationDeserializer
  AddTimeOffsetMiddleware
  RecordResponseTiming
  RequestResponseLogger
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)
```

```
// Checks out the specified license for offline use.
func (c *Client) CheckoutBorrowLicense(ctx context.Context, params *CheckoutBorrowLicenseInput, optFns
...func(*Options)) (*CheckoutBorrowLicenseOutput, error) {
 if params == nil {
  params = &CheckoutBorrowLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "CheckoutBorrowLicense", params, optFns,
c.addOperationCheckoutBorrowLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*CheckoutBorrowLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type CheckoutBorrowLicenseInput struct {

 // Unique, case-sensitive identifier that you provide to ensure the idempotency of
 //
 the request.
 //
 // This member is required.
 ClientToken *string

 // Digital signature method. The possible value is JSON Web Signature (JWS)
 // algorithm PS384. For more information, see [RFC 7518 Digital Signature with RSASSA-PSS].
 //
 // [RFC 7518 Digital Signature with RSASSA-PSS]: https://tools.ietf.org/html/rfc7518#section-3.5
 //
 // This member is required.
 DigitalSignatureMethod types.DigitalSignatureMethod

 // License entitlements. Partial checkouts are not supported.
 //
 // This member is required.
 Entitlements []types.EntitlementData

 // Amazon Resource Name (ARN) of the license. The license must use the borrow
 // consumption configuration.
 //
 // This member is required.
 LicenseArn *string

 // Information about constraints.
```

```
 CheckoutMetadata []types.Metadata

 // Node ID.
 NodeId *string

 noSmithyDocumentSerde
}

type CheckoutBorrowLicenseOutput struct {

 // Information about constraints.
 CheckoutMetadata []types.Metadata

 // Allowed license entitlements.
 EntitlementsAllowed
 []types.EntitlementData

 // Date and time at which the license checkout expires.
 Expiration *string

 // Date and time at which the license checkout is issued.
 IssuedAt *string

 // Amazon Resource Name (ARN) of the license.
 LicenseArn *string

 // License consumption token.
 LicenseConsumptionToken *string

 // Node ID.
 NodeId *string

 // Signed token.
 SignedToken *string

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationCheckoutBorrowLicenseMiddlewares(stack *middleware.Stack, options Options) (err
error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpCheckoutBorrowLicense{}, middleware.After)
 if err != nil {
```

```
 return err
}
err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpCheckoutBorrowLicense{}, middleware.After)
if err != nil {
 return
err
}
if err := addProtocolFinalizerMiddlewares(stack, options, "CheckoutBorrowLicense"); err != nil {
 return fmt.Errorf("add protocol finalizers: %v", err)
}

if err = addlegacyEndpointContextSetter(stack, options); err != nil {
 return err
}
if err = addSetLoggerMiddleware(stack, options); err != nil {
 return err
}
if err = addClientRequestID(stack); err != nil {
 return err
}
if err = addComputeContentLength(stack); err != nil {
 return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
 return err
}
if err = addComputePayloadSHA256(stack); err != nil {
 return err
}
if err = addRetry(stack, options); err != nil {
 return err
}
if err = addRawResponseToMetadata(stack); err != nil {
 return err
}
if err = addRecordResponseTiming(stack); err != nil {
 return err
}
if err = addClientUserAgent(stack, options); err != nil {
 return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return
err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
```

```
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
  return err
 }
 if err = addUserAgentRetryMode(stack, options); err != nil {
  return err
 }
 if err = addOpCheckoutBorrowLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opCheckoutBorrowLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opCheckoutBorrowLicense(region
 string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName: "CheckoutBorrowLicense",
 }
}
```

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```
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LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE,
DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY
THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT
(INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE
OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Checks in the specified license. Check in a license when it is no longer in use.
func (c *Client) CheckInLicense(ctx context.Context, params *CheckInLicenseInput, optFns ...func(*Options))
(*CheckInLicenseOutput, error) {
 if params == nil {
  params = &CheckInLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "CheckInLicense", params, optFns,
c.addOperationCheckInLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*CheckInLicenseOutput)
```

```
 out.ResultMetadata = metadata
 return out, nil
}

type CheckInLicenseInput struct {

 // License consumption token.
 //
 // This member is required.
 LicenseConsumptionToken *string

 // License beneficiary.
 Beneficiary *string

 noSmithyDocumentSerde
}

type
 CheckInLicenseOutput struct {
 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationCheckInLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpCheckInLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpCheckInLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "CheckInLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
```

```
 return err
 }
 if
 err = addComputeContentLength(stack); err != nil {
 return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
 return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
 return err
 }
 if err = addRetry(stack, options); err != nil {
 return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
 return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
 return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
 return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
 return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
 return err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
 return err
 }
 if err = addUserAgentRetryMode(stack, options); err != nil {
 return err
 }
 if err = addOpCheckInLicenseValidationMiddleware(stack); err != nil
 {
 return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opCheckInLicense(options.Region),
middleware.Before); err != nil {
 return err
 }
 if err = addRecursionDetection(stack); err != nil {
```

```
 return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opCheckInLicense(region string) *awsmiddleware.RegisterServiceMetadata
{
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:    ServiceID,
  OperationName: "CheckInLicense",
 }
}
```

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// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

```
import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Lists the licenses for your account.
func (c *Client) ListLicenses(ctx context.Context, params *ListLicensesInput, optFns ...func(*Options))
(*ListLicensesOutput, error) {
 if params == nil {
  params = &ListLicensesInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "ListLicenses", params, optFns,
c.addOperationListLicensesMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*ListLicensesOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type ListLicensesInput struct {

 // Filters to scope the results. The following filters are supported:
 //
 //   - Beneficiary
 //
 //   - ProductSKU
 //
 //   - Fingerprint
 //
 //   - Status
 Filters
 []types.Filter

 // Amazon Resource Names (ARNs) of the licenses.
 LicenseArns []string

 // Maximum number of results to return in a single call.
 MaxResults *int32
```

```
 // Token for the next set of results.
 NextToken *string

 noSmithyDocumentSerde
}

type ListLicensesOutput struct {

 // License details.
 Licenses []types.License

 // Token for the next set of results.
 NextToken *string

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationListLicensesMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpListLicenses{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpListLicenses{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack,
 options, "ListLicenses"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
```

```
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack);
 err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
  return err
 }
 if err = addUserAgentRetryMode(stack, options); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opListLicenses(options.Region), middleware.Before);
err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
```

```
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opListLicenses(region string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:
     ServiceID,
  OperationName: "ListLicenses",
 }
}
CheckInLicense
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
  OperationInputValidation
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
 Build stack step
  ClientRequestID
  ComputeContentLength
  UserAgent
  AddTimeOffsetMiddleware
  RecursionDetection
 Finalize stack step
  ResolveAuthScheme
  GetIdentity
  ResolveEndpointV2
  disableHTTPS
  ComputePayloadHash
  Retry
  RetryMetricsHeader
  setLegacyContextSigningOptions
  Signing
 Deserialize stack step
  AddRawResponseToMetadata
  ErrorCloseResponseBody
  CloseResponseBody
  ResponseErrorWrapper
```

RequestIDRetriever
OperationDeserializer
AddTimeOffsetMiddleware
RecordResponseTiming
RequestResponseLogger

```
{
  "smithy": "2.0",
  "shapes": {
    "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException": {
      "type": "structure",
      "members": {
        "message": {
          "target": "smithy.api#String"
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>You don't have sufficient access to perform this action.</p>",
        "smithy.api#error": "client"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ActiveDirectoryIdentityProvider": {
      "type": "structure",
      "members": {
        "DirectoryId": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The directory ID for an Active Directory identity provider.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#documentation":
"<p>Details about an Active Directory identity provider.</p>"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#AssociateUser": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#AssociateUserRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#AssociateUserResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
        },
        {
```

```
                "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Associates the user to an EC2 instance to utilize user-based subscriptions.</p>\n        <note>\n            <p>Your estimated bill for charges on the number of users and related costs will take 48\n        hours to appear for billing periods that haven't closed (marked as <b>Pending</b> billing status) in Amazon Web Services Billing. For more information, see <a href=\"https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/invoice.html\">Viewing your\n        monthly charges</a> in the <i>Amazon Web Services Billing User Guide</i>.</p>\n        </note>",
            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/user/AssociateUser"
            },
            "smithy.api#idempotent": {}
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#AssociateUserRequest": {
        "type": "structure",
        "members": {
            "Username": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The user name from the identity provider for the user.</p>",
                    "smithy.api#required": {}
                }
            },
            "InstanceId": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The ID of the
```

```
EC2 instance, which provides user-based subscriptions.</p>",
                    "smithy.api#required": {}
                }
            },
            "IdentityProvider": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
                "traits": {
                    "smithy.api#documentation": "<p>The identity provider of the user.</p>",
                    "smithy.api#required": {}
                }
            },
            "Domain": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The domain name of the user.</p>"
                }
            }
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#AssociateUserResponse": {
        "type": "structure",
        "members": {
            "InstanceUserSummary": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummary",
                 "traits": {
                    "smithy.api#documentation": "<p>Metadata that describes the associate user operation.</p>",
                    "smithy.api#required": {}
                }
            }
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#BoxInteger": {
        "type": "integer"
    },
    "com.amazonaws.licensemanagerusersubscriptions#ConflictException": {
        "type": "structure",
        "members": {
            "message": {
                "target": "smithy.api#String"
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>The request couldn't be completed because it conflicted with the current
state of the\n      resource.</p>",
            "smithy.api#error": "server"
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProvider":
```

```
{
        "type": "operation",
        "input": {
           "target": "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProviderRequest"
        },
        "output": {
           "target": "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProviderResponse"
        },
        "errors": [
           {
              "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
           },
           {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
           },
           {
              "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
           },
           {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
           },
           {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
            },
           {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
           },
           {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
           }
        ],
        "traits": {
           "smithy.api#documentation": "<p>Deregisters the identity provider from providing user-based
subscriptions.</p>",
           "smithy.api#http": {
              "code": 200,
              "method": "POST",
              "uri": "/identity-provider/DeregisterIdentityProvider"
           },
           "smithy.api#idempotent": {}
        }
     },
     "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProviderRequest": {
        "type": "structure",
        "members": {
           "IdentityProvider": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
```

```
            "traits": {
              "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
              "smithy.api#required": {}
            }
          },
          "Product": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
              "smithy.api#required": {}
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProviderResponse": {
        "type": "structure",
        "members": {
          "IdentityProviderSummary": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary",
            "traits": {
              "smithy.api#documentation":
"<p>Metadata that describes the results of an identity provider operation.</p>",
              "smithy.api#required": {}
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#DisassociateUser": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#DisassociateUserRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#DisassociateUserResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
          },
```

```
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Disassociates the user from an EC2 instance providing user-based
subscriptions.</p>",
            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/user/DisassociateUser"
            },
            "smithy.api#idempotent": {}
        }

    },
    "com.amazonaws.licensemanagerusersubscriptions#DisassociateUserRequest": {
        "type": "structure",
        "members": {
            "Username": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The user name from the identity provider for the user.</p>",
                    "smithy.api#required": {}
                }
            },
            "InstanceId": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The ID of the EC2 instance, which provides user-based
subscriptions.</p>",
                    "smithy.api#required": {}
                }
            },
            "IdentityProvider": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
                "traits": {
                    "smithy.api#documentation":
"<p>An object that specifies details for the identity provider.</p>",
                    "smithy.api#required": {}
                }
            },
```

```
        "Domain": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The domain name of the user.</p>"
          }
        }
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#DisassociateUserResponse": {
      "type": "structure",
      "members": {
        "InstanceUserSummary": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummary",
          "traits": {
            "smithy.api#documentation": "<p>Metadata that describes the associate user operation.</p>",
            "smithy.api#required": {}
          }
        }
      }
    },

"com.amazonaws.licensemanagerusersubscriptions#Filter": {
      "type": "structure",
      "members": {
        "Attribute": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The name of an attribute to use as a filter.</p>"
          }
        },
        "Operation": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The type of search (For example, eq, geq, leq)</p>"
          }
        },
        "Value": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>Value of the filter.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>A filter name and value pair that is used
 to return more specific results from a describe\n      operation. Filters can be used to match a set of resources by
specific criteria, such as tags,\n      attributes, or IDs.</p>"
      }
```

```
    },
    "com.amazonaws.licensemanagerusersubscriptions#FilterList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#Filter"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider": {
      "type": "union",
      "members": {
        "ActiveDirectoryIdentityProvider": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ActiveDirectoryIdentityProvider",
          "traits": {
            "smithy.api#documentation": "<p>An object that details an Active Directory identity provider.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#documentation":
"<p>Details about an identity provider.</p>"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary": {
      "type": "structure",
      "members": {
        "IdentityProvider": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
          "traits": {
            "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
            "smithy.api#required": {}
          }
        },
        "Settings": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#Settings",
          "traits": {
            "smithy.api#documentation": "<p>An object that details the registered identity providers product
related configuration\n      settings such as the subnets to provision VPC endpoints.</p>",
            "smithy.api#required":
{}
          }
        },
        "Product": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
            "smithy.api#required": {}
          }
        },
```

```
            "Status": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The status of an identity provider.</p>",
                  "smithy.api#required": {}
               }
            },
            "FailureMessage": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The failure message associated with an identity provider.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#documentation":
 "<p>Describes an identity provider.</p>"
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummaryList": {
         "type": "list",
         "member": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary"
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#InstanceSummary": {
         "type": "structure",
         "members": {
            "InstanceId": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The ID of the EC2 instance, which provides user-based
 subscriptions.</p>",
                  "smithy.api#required": {}
               }
            },
            "Status": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The status
  of an EC2 instance resource.</p>",
                  "smithy.api#required": {}
               }
            },
            "Products": {
               "target": "com.amazonaws.licensemanagerusersubscriptions#StringList",
               "traits": {
                  "smithy.api#documentation": "<p>A list of provided user-based subscription products.</p>",
```

```
                "smithy.api#required": {}
            }
        },
        "LastStatusCheckDate": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The date of the last status check.</p>"
            }
        },
        "StatusMessage": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The status message for an EC2 instance.</p>"
            }

    }
      },
      "traits": {
        "smithy.api#documentation": "<p>Describes an EC2 instance providing user-based subscriptions.</p>"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#InstanceSummaryList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceSummary"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummary": {
      "type": "structure",
      "members": {
        "Username": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The user name from the identity provider for the user.</p>",
                "smithy.api#required": {}
            }
        },
        "InstanceId": {
            "target": "smithy.api#String",
            "traits":
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                "smithy.api#documentation": "<p>The ID of the EC2 instance, which provides user-based
subscriptions.</p>",
                "smithy.api#required": {}
            }
        },
        "IdentityProvider": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
```

```
            "traits": {
                "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
                "smithy.api#required": {}
            }
        },
        "Status": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The status of a user associated with an EC2 instance.</p>",
                "smithy.api#required": {}
            }
        },
        "StatusMessage": {
            "target": "smithy.api#String",
             "traits": {
                "smithy.api#documentation": "<p>The status message for users of an EC2 instance.</p>"
            }
        },
        "Domain": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The domain name of the user.</p>"
            }
        },
        "AssociationDate": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The date a user was associated with an EC2 instance.</p>"
            }
        },
        "DisassociationDate": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The date a user was disassociated from an EC2 instance.</p>"
            }
        }

  },
        "traits": {
            "smithy.api#documentation": "<p>Describes users of an EC2 instance providing user-based
subscriptions.</p>"
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummaryList": {
        "type": "list",
        "member": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummary"
        }
```

```
    },
    "com.amazonaws.licensemanagerusersubscriptions#InternalServerException": {
        "type": "structure",
        "members": {
            "message": {
                "target": "smithy.api#String"
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>An exception occurred with the service.</p>",
            "smithy.api#error": "server"
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#LicenseManagerUserSubscriptions": {
        "type": "service",

     "version": "2018-05-10",
        "operations": [
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#AssociateUser"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProvider"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#DisassociateUser"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProviders"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ListInstances"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptions"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociations"

},
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProvider"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscription"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscription"
```

```
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettings"
        }
      ],
      "traits": {
        "aws.api#service": {
          "sdkId": "License Manager User Subscriptions",
          "arnNamespace": "license-manager-user-subscriptions",
          "cloudTrailEventSource": "license-manager-user-subscriptions.amazonaws.com"
        },
        "aws.auth#sigv4": {
          "name": "license-manager-user-subscriptions"
        },
        "aws.protocols#restJson1": {},
        "smithy.api#cors": {
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            "content-type",
            "x-amz-content-sha256",
            "x-amz-user-agent",
            "x-amzn-platform-id",
            "x-amzn-trace-id",
            "content-length",
            "x-api-key",
            "authorization",
            "x-amz-date",
            "x-amz-security-token",
            "Access-Control-Allow-Headers",
            "Access-Control-Allow-Methods",
            "Access-Control-Allow-Origin"
          ],
          "additionalExposedHeaders": [
            "x-amzn-errortype",
            "x-amzn-requestid",
            "x-amzn-trace-id"

]
        },
        "smithy.api#documentation": "<p>With License Manager, you can create user-based subscriptions to utilize licensed software with\n      a per user subscription fee on Amazon EC2 instances.</p>",
        "smithy.api#title": "AWS License Manager User Subscriptions",
        "smithy.rules#endpointRuleSet": {
          "version": "1.0",
          "parameters": {
            "Region": {
              "builtIn": "AWS::Region",
              "required": false,
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            "documentation": "The AWS region used to dispatch the request.",
            "type": "String"
          },
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            "builtIn": "AWS::UseDualStack",
            "required": true,
            "default": false,
            "documentation": "When true, use the dual-stack
endpoint. If the configured endpoint does not support dual-stack, dispatching the request MAY return an error.",
            "type": "Boolean"
          },
          "UseFIPS": {
            "builtIn": "AWS::UseFIPS",
            "required": true,
            "default": false,
            "documentation": "When true, send this request to the FIPS-compliant regional endpoint. If the
configured endpoint does not have a FIPS compliant endpoint, dispatching the request will return an error.",
            "type": "Boolean"
          },
          "Endpoint": {
            "builtIn": "SDK::Endpoint",
            "required": false,
            "documentation": "Override the endpoint used to send this request",
            "type": "String"
          }

    },
        "rules": [
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                "argv": [
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                    "ref": "Endpoint"
                  }
                ]
              }
            ],
            "type": "tree",
            "rules": [
              {
                "conditions": [
                  {
                    "fn": "booleanEquals",
                    "argv": [
                      {
                        "ref": "UseFIPS"
```

```
                    },

                    true
                    ]
                }
            ],
            "error": "Invalid Configuration: FIPS and custom endpoint are not supported",
            "type": "error"
        },
        {
            "conditions": [
                {
                    "fn": "booleanEquals",
                    "argv": [
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                            "ref": "UseDualStack"
                        },
                        true
                    ]
                }
            ],

"error": "Invalid Configuration: Dualstack and custom endpoint are not supported",
            "type": "error"
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            "conditions": [],
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                    "ref": "Endpoint"
                },
                "properties": {},
                "headers": {}
            },
            "type": "endpoint"
        }
    ]
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{
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            "fn": "isSet",
            "argv": [

{
                    "ref": "Region"
                }
            ]
```

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            }
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            {
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                        "argv": [
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                                "ref": "Region"
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                        "assign": "PartitionResult"
                    }
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                                "argv": [
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                                    },
                                    true
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                                "fn": "booleanEquals",
                                "argv": [
                                    {
                                        "ref": "UseDualStack"

                                    },
                                    true
                                ]
                            }
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                            {
                                "conditions": [
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                                        "fn": "booleanEquals",
                                        "argv": [
```

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                                    true,
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                                      "fn": "getAttr",

 "argv": [
                                        {
                                          "ref": "PartitionResult"
                                        },
                                        "supportsFIPS"
                                      ]
                                    }
                                  ]
                                },
                                {
                                  "fn": "booleanEquals",
                                  "argv": [
                                    true,
                                    {

              "fn": "getAttr",
                                        "argv": [
                                          {
                                            "ref": "PartitionResult"
                                          },
                                          "supportsDualStack"
                                        ]
                                      }
                                    ]
                                  }
                                ],
                                "type": "tree",
                                "rules": [
                                  {

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fips.{Region}.{PartitionResult#dualStackDnsSuffix}",
                                      "properties": {},
                                      "headers": {}
                                    },
                                    "type": "endpoint"
                                  }
                                ]
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                              {
                                "conditions": [],
                                "error": "FIPS and DualStack are enabled, but this partition does not support one or
```

```
both",
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                            }
                        ]
                    },
                    {
                        "conditions": [
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                                "fn": "booleanEquals",
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                                        "ref": "UseFIPS"
                                    },
                                    true
                                ]
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                                "conditions": [
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                                        "fn": "booleanEquals",
                                        "argv": [
                                            true,
                                            {
                                                "fn": "getAttr",
                                                "argv": [
                                                    {
                                                        "ref": "PartitionResult"
                                                    },
                                                    "supportsFIPS"

                                            ]
                                                }
                                            ]
                                    }
                                ],
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                                        "conditions": [],
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fips.{Region}.{PartitionResult#dnsSuffix}",
                                            "properties": {},
                                            "headers": {}
```

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},
                    "type": "endpoint"
                  }
                ]
              },
              {
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                "type": "error"
              }
            ]
          },
          {
            "conditions": [
              {
                "fn": "booleanEquals",
                "argv": [
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                    "ref": "UseDualStack"
                  },
                  true
                ]
              }
            ],
            "type": "tree",
            "rules": [
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                "conditions": [
                  {
                    "fn": "booleanEquals",
                    "argv": [
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                      {

                        "fn": "getAttr",
                          "argv": [
                            {
                              "ref": "PartitionResult"
                            },
                            "supportsDualStack"
                          ]
                        }
                      ]
                    }
                  ],
                  "type": "tree",
                  "rules": [
```

```
                                    {

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subscriptions.{Region}.{PartitionResult#dualStackDnsSuffix}",
                                        "properties": {},
                                        "headers": {}
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                                      "type": "endpoint"
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 not support DualStack",
                                  "type": "error"
                                }
                              ]
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                            {
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subscriptions.{Region}.{PartitionResult#dnsSuffix}",
                                "properties": {},
                                "headers": {}
                              },
                              "type": "endpoint"
                            }
                          ]
                        }
                      ]
                    },
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                      "conditions":
[],
                      "error": "Invalid Configuration: Missing Region",
                      "type": "error"
                    }
                  ]
                },
                "smithy.rules#endpointTests": {
                  "testCases": [
                    {
                      "documentation": "For region us-east-1 with FIPS enabled and DualStack enabled",
                      "expect": {
```

```
            "endpoint": {
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            }
          },
          "params": {
            "Region": "us-east-1",
            "UseFIPS": true,
            "UseDualStack": true
          }
        },
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          "documentation":
"For region us-east-1 with FIPS enabled and DualStack disabled",
          "expect": {
            "endpoint": {
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            }
          },
          "params": {
            "Region": "us-east-1",
            "UseFIPS": true,
            "UseDualStack": false
          }
        },
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          "expect": {
            "endpoint": {
              "url": "https://license-manager-user-subscriptions.us-east-1.api.aws"
            }
          },

        "params": {
            "Region": "us-east-1",
            "UseFIPS": false,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region us-east-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
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            }
          },
          "params": {
            "Region": "us-east-1",
            "UseFIPS": false,
```

```
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region cn-north-1 with
 FIPS enabled and DualStack enabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-user-subscriptions-fips.cn-north-
1.api.amazonwebservices.com.cn"
            }
          },
          "params": {
            "Region": "cn-north-1",
            "UseFIPS": true,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region cn-north-1 with FIPS enabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-user-subscriptions-fips.cn-north-1.amazonaws.com.cn"
            }
          },

      "params": {
            "Region": "cn-north-1",
            "UseFIPS": true,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region cn-north-1 with FIPS disabled and DualStack enabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-user-subscriptions.cn-north-1.api.amazonwebservices.com.cn"
            }
          },
          "params": {
            "Region": "cn-north-1",
            "UseFIPS": false,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region cn-north-1
```

```
with FIPS disabled and DualStack disabled",
                    "expect": {
                      "endpoint": {
                        "url": "https://license-manager-user-subscriptions.cn-north-1.amazonaws.com.cn"
                      }
                    },
                    "params": {
                      "Region": "cn-north-1",
                      "UseFIPS": false,
                      "UseDualStack": false
                    }
                  },
                  {
                    "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack enabled",
                    "expect": {
                      "endpoint": {
                        "url": "https://license-manager-user-subscriptions-fips.us-gov-east-1.api.aws"
                      }
                    },

        "params": {
                      "Region": "us-gov-east-1",
                      "UseFIPS": true,
                      "UseDualStack": true
                    }
                  },
                  {
                    "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack disabled",
                    "expect": {
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                      }
                    },
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                      "UseDualStack": false
                    }
                  },
                  {
                    "documentation": "For region us-gov-east-1
with FIPS disabled and DualStack enabled",
                    "expect": {
                      "endpoint": {
                        "url": "https://license-manager-user-subscriptions.us-gov-east-1.api.aws"
                      }
                    },
                    "params": {
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                "Region": "us-gov-east-1",
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                "UseDualStack": true
            }
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        {
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                }
            },

    "params": {
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                "UseFIPS": false,
                "UseDualStack": false
            }
        },
        {
            "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack enabled",
            "expect": {
                "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
            },
            "params": {
                "Region": "us-iso-east-1",
                "UseFIPS": true,
                "UseDualStack": true
            }
        },
        {
            "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack disabled",
            "expect":
{
                "endpoint": {
                    "url": "https://license-manager-user-subscriptions-fips.us-iso-east-1.c2s.ic.gov"
                }
            },
            "params": {
                "Region": "us-iso-east-1",
                "UseFIPS": true,
                "UseDualStack": false
            }
        },
        {
            "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack enabled",
            "expect": {
                "error": "DualStack is enabled but this partition does not support DualStack"
```

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      },
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        "Region": "us-iso-east-1",
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        "UseDualStack":
true
      }
    },
    {
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      "expect": {
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        }
      },
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        "UseDualStack": false
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        "UseDualStack": true
      }
    },
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      "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack disabled",
      "expect": {
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        }
      },
      "params": {
        "Region": "us-isob-east-1",
        "UseFIPS": true,
        "UseDualStack": false
      }

  },
    {
```

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      "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack enabled",
      "expect": {
        "error": "DualStack is enabled but this partition does not support DualStack"
      },
      "params": {
        "Region": "us-isob-east-1",
        "UseFIPS": false,
        "UseDualStack": true
      }
    },
    {
      "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-user-subscriptions.us-isob-east-1.sc2s.sgov.gov"
        }
      },
      "params": {
        "Region": "us-isob-east-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For custom endpoint with region set and fips disabled and dualstack disabled",
      "expect": {
        "endpoint": {
          "url": "https://example.com"
        }
      },
      "params": {
        "Region": "us-east-1",
        "UseFIPS": false,
        "UseDualStack": false,
        "Endpoint": "https://example.com"
      }
    },
    {

"documentation": "For custom endpoint with region not set and fips disabled and dualstack disabled",
      "expect": {
        "endpoint": {
          "url": "https://example.com"
        }
      },
      "params": {
        "UseFIPS": false,
        "UseDualStack": false,
```

```
                "Endpoint": "https://example.com"
              }
            },
            {
              "documentation": "For custom endpoint with fips enabled and dualstack disabled",
              "expect": {
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              },
              "params": {
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                "UseDualStack": false,
                "Endpoint": "https://example.com"
              }
            },
            {
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              "expect": {
                "error": "Invalid Configuration: Dualstack and custom endpoint are not supported"
              },
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                "UseFIPS": false,
                "UseDualStack": true,
                "Endpoint": "https://example.com"
              }
            },
            {
              "documentation": "Missing region",
              "expect": {
                 "error": "Invalid Configuration: Missing Region"
              }
            }
          ],
          "version": "1.0"
        }
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProviders": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProvidersRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProvidersResponse"
      },
      "errors": [
        {
```

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            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Lists the identity providers for user-based subscriptions.</p>",
          "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/identity-provider/ListIdentityProviders"
          },
          "smithy.api#paginated":
{
            "inputToken": "NextToken",
            "outputToken": "NextToken",
            "pageSize": "MaxResults",
            "items": "IdentityProviderSummaries"
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProvidersRequest": {
        "type": "structure",
        "members": {
          "MaxResults": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#BoxInteger",
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
```

```
            "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
        }
    }
},
"com.amazonaws.licensemanagerusersubscriptions#ListIdentityProvidersResponse":
{
    "type": "structure",
    "members": {
        "IdentityProviderSummaries": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummaryList",
            "traits": {
                "smithy.api#documentation": "<p>Metadata that describes the list identity providers operation.</p>",
                "smithy.api#required": {}
            }
        },
        "NextToken": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
        }
    }
},
"com.amazonaws.licensemanagerusersubscriptions#ListInstances": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#ListInstancesRequest"
     },
    "output": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#ListInstancesResponse"
    },
    "errors": [
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
```

```
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Lists the EC2 instances providing user-based subscriptions.</p>",
            "smithy.api#http": {
               "code": 200,
               "method": "POST",
               "uri": "/instance/ListInstances"
            },
            "smithy.api#paginated": {
               "inputToken": "NextToken",
               "outputToken": "NextToken",
               "pageSize": "MaxResults",
               "items": "InstanceSummaries"
            }
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListInstancesRequest": {
         "type": "structure",
         "members": {
            "MaxResults": {
               "target": "com.amazonaws.licensemanagerusersubscriptions#BoxInteger",
               "traits": {
                  "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
               }
            },
            "NextToken": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>Token for the next set of results.</p>"
               }
            },
            "Filters": {
               "target": "com.amazonaws.licensemanagerusersubscriptions#FilterList",
               "traits": {
                  "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those
that match one or\n      more sets of key-value pairs that you specify.</p>"
               }
            }
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListInstancesResponse": {
```

```
        "type":
"structure",
        "members": {
          "InstanceSummaries": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceSummaryList",
            "traits": {
              "smithy.api#documentation": "<p>Metadata that describes the list instances operation.</p>"
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptions": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptionsRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptionsResponse"
         },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
           }
        ],
```

```
        "traits": {
            "smithy.api#documentation": "<p>Lists the user-based subscription products available from an identity
provider.</p>",
            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/user/ListProductSubscriptions"
            },
            "smithy.api#paginated": {
                "inputToken": "NextToken",
                "outputToken": "NextToken",
                "pageSize": "MaxResults",
                "items": "ProductUserSummaries"
            }
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptionsRequest": {
        "type": "structure",
        "members": {
            "Product": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The name
 of the user-based subscription product.</p>",
                    "smithy.api#required": {}
                }
            },
            "IdentityProvider": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
                "traits": {
                    "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
                    "smithy.api#required": {}
                }
            },
            "MaxResults": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#BoxInteger",
                "traits": {
                    "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
                }
            },
            "Filters": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#FilterList",
                "traits": {

  "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those that match
one or\n      more sets of key-value pairs that you specify.</p>"
                }
            },
```

```
            "NextToken": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>Token for the next set of results.</p>"
               }
            }
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptionsResponse": {
         "type": "structure",
         "members": {
            "ProductUserSummaries": {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummaryList",
               "traits": {
                  "smithy.api#documentation": "<p>Metadata that describes the list product subscriptions
operation.</p>"
               }
            },

       "NextToken": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>Token for the next set of results.</p>"
               }
            }
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociations": {
         "type": "operation",
         "input": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociationsRequest"
         },
         "output": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociationsResponse"
         },
         "errors": [
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
            },
            {
               "target":
 "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
```

```
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Lists user associations for an identity provider.</p>",
            "smithy.api#http": {
               "code": 200,
               "method": "POST",
               "uri": "/user/ListUserAssociations"
            },
            "smithy.api#paginated":
{
               "inputToken": "NextToken",
               "outputToken": "NextToken",
               "pageSize": "MaxResults",
               "items": "InstanceUserSummaries"
            }
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociationsRequest": {
         "type": "structure",
         "members": {
            "InstanceId": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The ID of the EC2 instance, which provides user-based
subscriptions.</p>",
                  "smithy.api#required": {}
               }
            },
            "IdentityProvider": {
               "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
               "traits": {
                  "smithy.api#documentation": "<p>An object that specifies details for the identity
 provider.</p>",
                  "smithy.api#required": {}
               }
            },
            "MaxResults": {
               "target": "com.amazonaws.licensemanagerusersubscriptions#BoxInteger",
```

```
            "traits": {
                "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
        },
        "Filters": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#FilterList",
            "traits": {
                "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those
that match one or\n      more sets of key-value pairs that you specify.</p>"
            }
        },
        "NextToken": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>Token for
 the next set of results.</p>"
            }
        }
    }
},
"com.amazonaws.licensemanagerusersubscriptions#ListUserAssociationsResponse": {
    "type": "structure",
    "members": {
        "InstanceUserSummaries": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummaryList",
            "traits": {
                "smithy.api#documentation": "<p>Metadata that describes the list user association operation.</p>"
            }
        },
        "NextToken": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
        }
    }
},
"com.amazonaws.licensemanagerusersubscriptions#ProductUserSummary": {
    "type": "structure",
    "members": {

    "Username": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The user name from the identity provider of the user.</p>",
                "smithy.api#required": {}
            }
        },
```

```
            "Product": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
                    "smithy.api#required": {}
                }
            },
            "IdentityProvider": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
                "traits": {
                    "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
                    "smithy.api#required": {}
                }

    },
            "Status": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The status of a product for a user.</p>",
                    "smithy.api#required": {}
                }
            },
            "StatusMessage": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The status message for a product for a user.</p>"
                }
            },
            "Domain": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The domain name of the user.</p>"
                }
            },
            "SubscriptionStartDate": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The
start date of a subscription.</p>"
                }
            },
            "SubscriptionEndDate": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The end date of a subscription.</p>"
                }
            }
        },
```

```
    "traits": {
        "smithy.api#documentation": "<p>The summary of the user-based subscription products for a user.</p>"
    }
},
"com.amazonaws.licensemanagerusersubscriptions#ProductUserSummaryList": {
    "type": "list",
    "member": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummary"
    }
},
"com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProvider": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProviderRequest"
     },
    "output": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProviderResponse"
    },
    "errors": [
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
         },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
        }
    ],
    "traits": {
        "smithy.api#documentation": "<p>Registers an identity provider for user-based subscriptions.</p>",
        "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/identity-provider/RegisterIdentityProvider"
        },
```

```
            "smithy.api#idempotent": {}
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProviderRequest": {
        "type": "structure",
        "members": {
            "IdentityProvider": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
                "traits": {
                    "smithy.api#documentation": "<p>An object that specifies details for the identity
provider.</p>",
                    "smithy.api#required": {}
                }
            },
            "Product": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
                    "smithy.api#required": {}
                }
            },
            "Settings": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#Settings",
                "traits": {
                    "smithy.api#documentation": "<p>The registered identity providers product related configuration
settings such as the\n      subnets to provision VPC endpoints.</p>"
                }
            }
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProviderResponse": {
        "type": "structure",
        "members": {
            "IdentityProviderSummary":
{
                "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary",
                "traits": {
                    "smithy.api#documentation": "<p>Metadata that describes the results of an identity provider
operation.</p>",
                    "smithy.api#required": {}
                }
            }
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException": {
        "type": "structure",
        "members": {
            "message": {
```

```
            "target": "smithy.api#String"
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>The resource couldn't be found.</p>",
          "smithy.api#error": "client",
          "smithy.api#httpError": 404
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#SecurityGroup": {
        "type": "string",

    "traits": {
          "smithy.api#length": {
            "min": 5,
            "max": 200
          },
          "smithy.api#pattern": "^sg-(([0-9a-z]{8})|([0-9a-z]{17}))$"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException": {
        "type": "structure",
        "members": {
          "message": {
            "target": "smithy.api#String"
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>The request failed because a service quota is exceeded.</p>",
          "smithy.api#error": "client"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#Settings": {
        "type": "structure",
        "members": {
          "Subnets": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#Subnets",
            "traits": {
              "smithy.api#documentation":
    "<p>The subnets defined for the registered identity provider.</p>",
              "smithy.api#length": {
                "min": 1
              },
              "smithy.api#required": {}
            }
          },
          "SecurityGroupId": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#SecurityGroup",
```

```
            "traits": {
              "smithy.api#documentation": "<p>A security group ID that allows inbound TCP port 1688
communication between resources in\n      your VPC and the VPC endpoint for activation servers.</p>",
              "smithy.api#required": {}
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>The registered identity providers product related configuration settings
such as the\n      subnets to provision VPC endpoints, and the security group ID that
 is associated with the VPC\n      endpoints. The security group should permit inbound TCP port 1688
communication from resources\n      in the VPC.</p>"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscription": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscriptionRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscriptionResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
           },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Starts a product subscription for a user with the specified identity
provider.</p>\n      <note>\n        <p>Your estimated bill for charges on the number of users and related costs
```

```
will take 48\n hours to appear for billing periods that haven't closed (marked as <b>Pending</b> billing status) in Amazon Web Services Billing.
 For more information, see <a href=\"https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/invoice.html\">Viewing your\n monthly charges</a> in the <i>Amazon Web Services Billing User Guide</i>.</p>\n </note>",
            "smithy.api#http": {
               "code": 200,
               "method": "POST",
               "uri": "/user/StartProductSubscription"
            }
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscriptionRequest": {
         "type": "structure",
         "members": {
            "Username": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The user name from the identity provider of the user.</p>",
                  "smithy.api#required": {}
               }
            },
            "IdentityProvider": {
               "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
               "traits": {
                  "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
                  "smithy.api#required": {}
               }
            },
            "Product": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
                  "smithy.api#required": {}
               }
            },
            "Domain": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The domain name of the user.</p>"
               }
            }
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscriptionResponse": {
         "type": "structure",
         "members": {
            "ProductUserSummary": {
```

```
            "target": "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummary",
            "traits": {
              "smithy.api#documentation": "<p>Metadata that describes the start product subscription
operation.</p>",
              "smithy.api#required": {}
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscription": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscriptionRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscriptionResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"

    },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Stops a product subscription for a user with the specified identity
provider.</p>",
           "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/user/StopProductSubscription"
```

```
            }
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscriptionRequest": {
          "type": "structure",
          "members": {
            "Username": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The user name from the identity provider for the user.</p>",
                "smithy.api#required": {}
              }
            },
            "IdentityProvider": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
              "traits": {
                "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
                "smithy.api#required":
{}
              }
            },
            "Product": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
                "smithy.api#required": {}
              }
            },
            "Domain": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The domain name of the user.</p>"
              }
            }
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscriptionResponse": {
          "type": "structure",
          "members": {
            "ProductUserSummary": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummary",
              "traits": {
                "smithy.api#documentation":
"<p>Metadata that describes the start product subscription operation.</p>",
                "smithy.api#required": {}
              }
            }
          }
```

```
    },
    "com.amazonaws.licensemanagerusersubscriptions#StringList": {
      "type": "list",
      "member": {
        "target": "smithy.api#String"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#Subnet": {
      "type": "string",
      "traits": {
        "smithy.api#pattern": "subnet-[a-z0-9]{8,17}"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#Subnets": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#Subnet"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException": {
      "type": "structure",
      "members": {
        "message": {

         "target": "smithy.api#String"
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>The request was denied because of request throttling. Retry the
request.</p>",
        "smithy.api#error": "client"
      }
    },
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      "input": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettingsRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettingsResponse"
      },
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        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
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            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
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            "smithy.api#http": {
              "code": 200,
              "method": "POST",
              "uri": "/identity-provider/UpdateIdentityProviderSettings"
            },
            "smithy.api#idempotent": {}
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        "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettingsRequest": {
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              "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
              "traits": {
                "smithy.api#required": {}
              }
            },
            "Product": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
                "smithy.api#required": {}
              }
            },
            "UpdateSettings": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#UpdateSettings",
              "traits": {
                "smithy.api#documentation": "<p>Updates the registered identity providers product related configuration settings. You can\n      update any combination of settings in a single operation such as the:</p>\n<ul>\n            <li>\n              <p>Subnets which you want to add to provision VPC endpoints.</p>\n            </li>\n            <li>\n              <p>Subnets which you want to remove the VPC endpoints from.</p>\n            </li>\n            <li>\n              <p>Security group ID which permits traffic to the VPC endpoints.</p>\n            </li>\n          </ul>",
                "smithy.api#required": {}
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            }
          }
        },
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    "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettingsResponse": {
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      "members": {
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          "traits": {
            "smithy.api#required": {}
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         "target": "com.amazonaws.licensemanagerusersubscriptions#Subnets",
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            "smithy.api#documentation": "<p>The ID of one or more subnets in which License Manager will
create a VPC endpoint for products that\n      require connectivity to activation servers.</p>",
            "smithy.api#required": {}
          }
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        "RemoveSubnets": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#Subnets",
          "traits": {
            "smithy.api#documentation": "<p>The ID of one or more subnets to remove.</p>",
            "smithy.api#required": {}
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        "SecurityGroupId": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#SecurityGroup",
          "traits": {
            "smithy.api#documentation": "<p>A security group ID
 that allows inbound TCP port 1688 communication between resources in\n      your VPC and the VPC endpoints for
activation servers.</p>"
          }
        }
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      "traits": {
        "smithy.api#documentation": "<p>Updates the registered identity providers product related configuration
settings such as\n      the subnets to provision VPC endpoints.</p>"
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      "members": {
        "message": {
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            "smithy.api#error": "client"
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        {
            "id": "HttpResponseCodeSemantics",
            "namespace": "*"
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            "namespace": "*"
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        {
            "id": "HttpHeaderTrait",
            "namespace": "*"
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        {
            "id": "HttpUriConflict",
            "namespace": "*"
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        {
            "id": "Service",
            "namespace": "*"
        }
    ]
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        "version": "2018-08-01",
        "operations": [
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            "target": "com.amazonaws.licensemanager#CheckoutBorrowLicense"
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            "target": "com.amazonaws.licensemanager#CheckoutLicense"
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            "target": "com.amazonaws.licensemanager#CreateGrantVersion"
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            "target": "com.amazonaws.licensemanager#CreateLicenseConfiguration"
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            "target": "com.amazonaws.licensemanager#CreateLicenseConversionTaskForResource"
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        {
            "target": "com.amazonaws.licensemanager#CreateLicenseManagerReportGenerator"
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        {
            "target": "com.amazonaws.licensemanager#CreateLicenseVersion"
        },
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            "target": "com.amazonaws.licensemanager#CreateToken"
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            "target": "com.amazonaws.licensemanager#DeleteGrant"
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            "target": "com.amazonaws.licensemanager#DeleteLicense"
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            "target": "com.amazonaws.licensemanager#DeleteLicenseConfiguration"
        },
        {
            "target": "com.amazonaws.licensemanager#DeleteLicenseManagerReportGenerator"
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        {
            "target": "com.amazonaws.licensemanager#DeleteToken"
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```
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      "target": "com.amazonaws.licensemanager#GetGrant"
    },
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      "target": "com.amazonaws.licensemanager#GetLicense"
    },
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      "target": "com.amazonaws.licensemanager#GetLicenseConfiguration"
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      "target": "com.amazonaws.licensemanager#GetLicenseManagerReportGenerator"
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      "target": "com.amazonaws.licensemanager#GetLicenseUsage"
    },
    {
      "target": "com.amazonaws.licensemanager#GetServiceSettings"
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    },
    {
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    },
    {
      "target": "com.amazonaws.licensemanager#ListLicenseConversionTasks"
    },
    {
      "target": "com.amazonaws.licensemanager#ListLicenseManagerReportGenerators"
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    {
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  {
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  },
  {

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    "target": "com.amazonaws.licensemanager#ListReceivedGrants"
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    "target": "com.amazonaws.licensemanager#ListReceivedGrantsForOrganization"
  },
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    "target": "com.amazonaws.licensemanager#ListReceivedLicenses"
  },
  {
    "target": "com.amazonaws.licensemanager#ListReceivedLicensesForOrganization"
  },
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    "target": "com.amazonaws.licensemanager#ListResourceInventory"
  },
  {
    "target": "com.amazonaws.licensemanager#ListTagsForResource"
  },
  {
    "target": "com.amazonaws.licensemanager#ListTokens"
  },
  {
    "target": "com.amazonaws.licensemanager#ListUsageForLicenseConfiguration"
   },
  {
    "target": "com.amazonaws.licensemanager#RejectGrant"
  },
  {
    "target": "com.amazonaws.licensemanager#TagResource"
  },
  {
    "target": "com.amazonaws.licensemanager#UntagResource"
  },
  {
    "target": "com.amazonaws.licensemanager#UpdateLicenseConfiguration"
  },
  {
    "target": "com.amazonaws.licensemanager#UpdateLicenseManagerReportGenerator"
  },
```

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            {
                "target": "com.amazonaws.licensemanager#UpdateServiceSettings"
            }
        ],
        "traits": {
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                "sdkId": "License Manager",
                "arnNamespace": "license-manager",
                "cloudFormationName": "LicenseManager",
                "cloudTrailEventSource": "licensemanager.amazonaws.com",
                "endpointPrefix": "license-manager"
            },
            "aws.auth#sigv4": {
                "name": "license-manager"
            },
            "aws.protocols#awsJson1_1": {},
            "smithy.api#documentation": "<p>License Manager makes it easier to manage licenses from software vendors across multiple \n         Amazon Web Services accounts and on-premises servers.</p>",
            "smithy.api#title": "AWS License Manager",
            "smithy.api#xmlNamespace": {
                "uri": "https://license-manager.amazonaws.com/doc/2018_08_01"
            },
            "smithy.rules#endpointRuleSet": {
                "version": "1.0",
                "parameters": {
                    "Region": {
                        "builtIn": "AWS::Region",
                        "required": false,
                        "documentation": "The AWS region used to dispatch the request.",
                        "type": "String"
                    },
                    "UseDualStack": {
                        "builtIn": "AWS::UseDualStack",
                        "required": true,
                        "default": false,
                        "documentation": "When true, use the dual-stack endpoint. If the configured endpoint does not support dual-stack, dispatching the request MAY return an error.",
                        "type": "Boolean"
                    },
                    "UseFIPS": {
                        "builtIn": "AWS::UseFIPS",
                        "required": true,
                        "default": false,
                        "documentation": "When true, send
```

this request to the FIPS-compliant regional endpoint. If the configured endpoint does not have a FIPS compliant endpoint, dispatching the request will return an error.",


```
            "type": "Boolean"
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        "Endpoint": {
            "builtIn": "SDK::Endpoint",
            "required": false,
            "documentation": "Override the endpoint used to send this request",
            "type": "String"
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                    "argv": [
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                            "ref": "Endpoint"
                        }
                    ]

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                ],
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                "rules": [
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                            {
                                "fn": "booleanEquals",
                                "argv": [
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                                        "ref": "UseFIPS"
                                    },
                                    true
                                ]
                            }
                        ],
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                        "type": "error"
                    },
                    {

 "conditions": [
                            {
                                "fn": "booleanEquals",
                                "argv": [
                                    {
```

```
                        "ref": "UseDualStack"
                    },
                    true
                ]
            }
        ],
        "error": "Invalid Configuration: Dualstack and custom endpoint are not supported",
        "type": "error"
      },
      {
        "conditions": [],
        "endpoint": {
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            "ref": "Endpoint"
          },
          "properties": {},
          "headers": {}
        },
        "type": "endpoint"
      }
    ]
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  {
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      {
        "fn": "isSet",
        "argv": [
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            "ref": "Region"
          }
        ]
      }
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    "rules": [
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            "argv": [
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                "ref": "Region"
              }
            ],
            "assign": "PartitionResult"
          }
        ],
        "type": "tree",
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                "rules": [
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                        "fn": "booleanEquals",
                        "argv": [
                          {
                            "ref":
"UseFIPS"
                          },
                          true
                        ]
                      },
                      {
                        "fn": "booleanEquals",
                        "argv": [
                          {
                            "ref": "UseDualStack"
                          },
                          true
                        ]
                      }
                    ],
                    "type": "tree",
                    "rules": [
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                            "fn": "booleanEquals",
                            "argv": [
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                              {
                                "fn": "getAttr",
                                "argv": [
                                  {
                                    "ref": "PartitionResult"
                                  },
                                  "supportsFIPS"
                                ]

                          }
                            ]
                          },
                          {
                            "fn": "booleanEquals",
                            "argv": [
                              true,
                              {
```

```
                                        "fn": "getAttr",
                                        "argv": [
                                            {
                                                "ref": "PartitionResult"
                                            },

    "supportsDualStack"
                                        ]
                                    }
                                ]
                            }
                        ],
                        "type": "tree",
                        "rules": [
                            {
                                "conditions": [],
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fips.{Region}.{PartitionResult#dualStackDnsSuffix}",
                                    "properties": {},
                                    "headers": {}

                            },
                                "type": "endpoint"
                            }
                        ]
                    },
                    {
                        "conditions": [],
                        "error": "FIPS and DualStack are enabled, but this partition does not support one or
both",
                        "type": "error"
                    }
                ]
            },
            {
                "conditions": [
                    {
                        "fn": "booleanEquals",

                  "argv": [
                            {
                                "ref": "UseFIPS"
                            },
                            true
                        ]
                    }
                ],
```

```
                "type": "tree",
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                              "fn": "getAttr",
                              "argv": [
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                                  "ref": "PartitionResult"
                                },
                                "supportsFIPS"
                              ]
                            }
                          ]
                        }
                      ],
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                      "rules": [

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                            "properties": {},
                            "headers": {}
                          },
                          "type": "endpoint"
                        }
                      ]
                    },
                    {
                      "conditions": [],
                      "error": "FIPS is enabled but this
partition does not support FIPS",
                      "type": "error"
                    }
                  ]
                },
                {
                  "conditions": [
                    {
                      "fn": "booleanEquals",
                      "argv": [
```

```
                {
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                },
                true
              ]
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          ],
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          "rules": [
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              "conditions": [
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                  "fn": "booleanEquals",
                  "argv": [
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                    {
                      "fn": "getAttr",
                      "argv": [
                        {
                          "ref": "PartitionResult"
                        },

"supportsDualStack"
                        ]
                      }
                    ]
                  }
                ],
                "type": "tree",
                "rules": [
                  {
                    "conditions": [],
                    "endpoint": {
                      "url": "https://license-
manager.{Region}.{PartitionResult#dualStackDnsSuffix}",
                      "properties": {},
                      "headers": {}

          },
                    "type": "endpoint"
                  }
                ]
            },
            {
              "conditions": [],
              "error": "DualStack is enabled but this partition does not support DualStack",
              "type": "error"
            }
```

```
                        ]
                    },
                    {
                        "conditions": [],
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                            "headers": {}
                        },
                        "type": "endpoint"
                    }
                ]
            }
        ]
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        "error": "Invalid Configuration: Missing Region",
        "type": "error"
    }
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"smithy.rules#endpointTests": {
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            "documentation": "For region af-south-1 with FIPS disabled and DualStack disabled",
            "expect": {
                "endpoint":
{
                    "url": "https://license-manager.af-south-1.amazonaws.com"
                }
            },
            "params": {
                "Region": "af-south-1",
                "UseFIPS": false,
                "UseDualStack": false
            }
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            "documentation": "For region ap-east-1 with FIPS disabled and DualStack disabled",
            "expect": {
                "endpoint": {
                    "url": "https://license-manager.ap-east-1.amazonaws.com"
                }
            },
            "params": {
                "Region": "ap-east-1",
                "UseFIPS": false,
```

```
            "UseDualStack": false
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        },
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          "expect": {
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            }
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          "params": {
            "Region": "ap-northeast-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
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          "documentation": "For region ap-northeast-2 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager.ap-northeast-2.amazonaws.com"
            }
          },
          "params": {
            "Region": "ap-northeast-2",
            "UseFIPS": false,
            "UseDualStack": false
          }
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          "documentation": "For region ap-northeast-3 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager.ap-northeast-3.amazonaws.com"
            }
          },
          "params": {
            "Region": "ap-northeast-3",
            "UseFIPS": false,
            "UseDualStack": false
          }

    },
        {
          "documentation": "For region ap-south-1 with FIPS disabled and DualStack disabled",
          "expect": {
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```

```
            }
          },
          "params": {
            "Region": "ap-south-1",
            "UseFIPS": false,
            "UseDualStack": false
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        {
          "documentation": "For region ap-southeast-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager.ap-southeast-1.amazonaws.com"

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          },
          "params": {
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            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region ap-southeast-2 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager.ap-southeast-2.amazonaws.com"
            }
          },
          "params": {
            "Region": "ap-southeast-2",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {

"documentation": "For region ap-southeast-3 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
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            }
          },
          "params": {
            "Region": "ap-southeast-3",
            "UseFIPS": false,
            "UseDualStack": false
          }
```

```
    },
    {
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      "expect": {
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        }
      },

     "params": {
        "Region": "ca-central-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
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      "documentation": "For region eu-central-1 with FIPS disabled and DualStack disabled",
      "expect": {
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          "url": "https://license-manager.eu-central-1.amazonaws.com"
        }
      },
      "params": {
        "Region": "eu-central-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
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disabled and DualStack disabled",
      "expect": {
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        }
      },
      "params": {
        "Region": "eu-north-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region eu-south-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager.eu-south-1.amazonaws.com"
        }
```

```
      },
      "params": {
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"eu-south-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {
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      "expect": {
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          "url": "https://license-manager.eu-west-1.amazonaws.com"
        }
      },
      "params": {
        "Region": "eu-west-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region eu-west-2 with FIPS disabled and DualStack disabled",
      "expect": {

      "endpoint": {
          "url": "https://license-manager.eu-west-2.amazonaws.com"
        }
      },
      "params": {
        "Region": "eu-west-2",
        "UseFIPS": false,
        "UseDualStack": false
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    },
    {
      "documentation": "For region eu-west-3 with FIPS disabled and DualStack disabled",
      "expect": {
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        }
      },
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        "Region": "eu-west-3",
        "UseFIPS": false,

   "UseDualStack": false
      }
```

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        },
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          "expect": {
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            }
          },
          "params": {
            "Region": "me-south-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region sa-east-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager.sa-east-1.amazonaws.com"
             }
          },
          "params": {
            "Region": "sa-east-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-east-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager.us-east-1.amazonaws.com"
            }
          },
          "params": {
            "Region": "us-east-1",
            "UseFIPS": false,
            "UseDualStack": false
          }

    },
        {
          "documentation": "For region us-east-1 with FIPS enabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-fips.us-east-1.amazonaws.com"
            }
          },
```

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        "UseFIPS": true,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region us-east-2 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager.us-east-2.amazonaws.com"
        }

     },
      "params": {
        "Region": "us-east-2",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region us-east-2 with FIPS enabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-fips.us-east-2.amazonaws.com"
        }
      },
      "params": {
        "Region": "us-east-2",
        "UseFIPS": true,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region
us-west-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager.us-west-1.amazonaws.com"
        }
      },
      "params": {
        "Region": "us-west-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {
```

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      "documentation": "For region us-west-1 with FIPS enabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-fips.us-west-1.amazonaws.com"
        }
      },
      "params": {

    "Region": "us-west-1",
        "UseFIPS": true,
        "UseDualStack": false
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    },
    {
      "documentation": "For region us-west-2 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager.us-west-2.amazonaws.com"
        }
      },
      "params": {
        "Region": "us-west-2",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region us-west-2 with FIPS enabled and DualStack disabled",

"expect": {
        "endpoint": {
          "url": "https://license-manager-fips.us-west-2.amazonaws.com"
        }
      },
      "params": {
        "Region": "us-west-2",
        "UseFIPS": true,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region us-east-1 with FIPS enabled and DualStack enabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-fips.us-east-1.api.aws"
        }
      },
      "params": {
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                "Region": "us-east-1",
                "UseFIPS": true,

                "UseDualStack": true
            }
        },
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            "documentation": "For region us-east-1 with FIPS disabled and DualStack enabled",
            "expect": {
                "endpoint": {
                    "url": "https://license-manager.us-east-1.api.aws"
                }
            },
            "params": {
                "Region": "us-east-1",
                "UseFIPS": false,
                "UseDualStack": true
            }
        },
        {
            "documentation": "For region cn-north-1 with FIPS disabled and DualStack disabled",
            "expect": {
                "endpoint": {
                    "url":
"https://license-manager.cn-north-1.amazonaws.com.cn"
                }
            },
            "params": {
                "Region": "cn-north-1",
                "UseFIPS": false,
                "UseDualStack": false
            }
        },
        {
            "documentation": "For region cn-northwest-1 with FIPS disabled and DualStack disabled",
            "expect": {
                "endpoint": {
                    "url": "https://license-manager.cn-northwest-1.amazonaws.com.cn"
                }
            },
            "params": {
                "Region": "cn-northwest-1",
                "UseFIPS": false,
                "UseDualStack": false

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        },
        {
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      "documentation": "For region cn-north-1 with FIPS enabled and DualStack enabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-fips.cn-north-1.api.amazonwebservices.com.cn"
        }
      },
      "params": {
        "Region": "cn-north-1",
        "UseFIPS": true,
        "UseDualStack": true
      }
    },
    {
      "documentation": "For region cn-north-1 with FIPS enabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-fips.cn-north-1.amazonaws.com.cn"
         }
      },
      "params": {
        "Region": "cn-north-1",
        "UseFIPS": true,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region cn-north-1 with FIPS disabled and DualStack enabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager.cn-north-1.api.amazonwebservices.com.cn"
        }
      },
      "params": {
        "Region": "cn-north-1",
        "UseFIPS": false,
        "UseDualStack": true
      }
    },

{
      "documentation": "For region us-gov-east-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager.us-gov-east-1.amazonaws.com"
        }
      },
      "params": {
        "Region": "us-gov-east-1",
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            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-fips.us-gov-east-1.amazonaws.com"
            }
          },
          "params": {
            "Region": "us-gov-east-1",
            "UseFIPS": true,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-gov-west-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager.us-gov-west-1.amazonaws.com"
            }
          },
          "params": {
            "Region": "us-gov-west-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation":
"For region us-gov-west-1 with FIPS enabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-fips.us-gov-west-1.amazonaws.com"
            }
          },
          "params": {
            "Region": "us-gov-west-1",
            "UseFIPS": true,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack enabled",
          "expect": {
            "endpoint": {
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                    "url": "https://license-manager-fips.us-gov-east-1.api.aws"
                }
            },

        "params": {
                "Region": "us-gov-east-1",
                "UseFIPS": true,
                "UseDualStack": true
            }
        },
        {
            "documentation": "For region us-gov-east-1 with FIPS disabled and DualStack enabled",
            "expect": {
                "endpoint": {
                    "url": "https://license-manager.us-gov-east-1.api.aws"
                }
            },
            "params": {
                "Region": "us-gov-east-1",
                "UseFIPS": false,
                "UseDualStack": true
            }
        },
        {
            "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack
disabled",
            "expect": {
                "endpoint": {
                    "url": "https://license-manager.us-iso-east-1.c2s.ic.gov"
                }
            },
            "params": {
                "Region": "us-iso-east-1",
                "UseFIPS": false,
                "UseDualStack": false
            }
        },
        {
            "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack enabled",
            "expect": {
                "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
            },
            "params": {
                "Region": "us-iso-east-1",
                "UseFIPS": true,
                 "UseDualStack": true
            }
        },
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    {
      "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-fips.us-iso-east-1.c2s.ic.gov"
        }
      },
      "params": {
        "Region": "us-iso-east-1",
        "UseFIPS": true,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack enabled",
      "expect": {
        "error": "DualStack is enabled
but this partition does not support DualStack"
      },
      "params": {
        "Region": "us-iso-east-1",
        "UseFIPS": false,
        "UseDualStack": true
      }
    },
    {
      "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager.us-isob-east-1.sc2s.sgov.gov"
        }
      },
      "params": {
        "Region": "us-isob-east-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },

   {
      "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack enabled",
      "expect": {
        "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
      },
      "params": {
        "Region": "us-isob-east-1",
        "UseFIPS": true,
        "UseDualStack": true
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            }
        },
        {
            "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack disabled",
            "expect": {
                "endpoint": {
                    "url": "https://license-manager-fips.us-isob-east-1.sc2s.sgov.gov"
                }
            },

    "params": {
                "Region": "us-isob-east-1",
                "UseFIPS": true,
                "UseDualStack": false
            }
        },
        {
            "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack enabled",
            "expect": {
                "error": "DualStack is enabled but this partition does not support DualStack"
            },
            "params": {
                "Region": "us-isob-east-1",
                "UseFIPS": false,
                "UseDualStack": true
            }
        },
        {
            "documentation": "For custom endpoint with region set and fips disabled and dualstack disabled",

  "expect": {
                "endpoint": {
                    "url": "https://example.com"
                }
            },
            "params": {
                "Region": "us-east-1",
                "UseFIPS": false,
                "UseDualStack": false,
                "Endpoint": "https://example.com"
            }
        },
        {
            "documentation": "For custom endpoint with region not set and fips disabled and dualstack
disabled",
            "expect": {
                "endpoint": {
                    "url": "https://example.com"
```

```
                }
              },
              "params": {
                "UseFIPS": false,

      "UseDualStack": false,
                "Endpoint": "https://example.com"
              }
            },
            {
              "documentation": "For custom endpoint with fips enabled and dualstack disabled",
              "expect": {
                "error": "Invalid Configuration: FIPS and custom endpoint are not supported"
              },
              "params": {
                "Region": "us-east-1",
                "UseFIPS": true,
                "UseDualStack": false,
                "Endpoint": "https://example.com"
              }
            },
            {
              "documentation": "For custom endpoint with fips disabled and dualstack enabled",
              "expect": {
                "error":
"Invalid Configuration: Dualstack and custom endpoint are not supported"
              },
              "params": {
                "Region": "us-east-1",
                "UseFIPS": false,
                "UseDualStack": true,
                "Endpoint": "https://example.com"
              }
            },
            {
              "documentation": "Missing region",
              "expect": {
                "error": "Invalid Configuration: Missing Region"
              }
            }
          ],
          "version": "1.0"
        }
      }
    },
    "com.amazonaws.licensemanager#AcceptGrant": {
      "type": "operation",
      "input": {
```

```
            "target": "com.amazonaws.licensemanager#AcceptGrantRequest"

    },
        "output": {
            "target": "com.amazonaws.licensemanager#AcceptGrantResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"

      }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Accepts the specified grant.</p>"
        }
      },
      "com.amazonaws.licensemanager#AcceptGrantRequest": {
        "type": "structure",
        "members": {
            "GrantArn": {
                "target": "com.amazonaws.licensemanager#Arn",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the grant.</p>",
                    "smithy.api#required": {}
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
```

```
    },
    "com.amazonaws.licensemanager#AcceptGrantResponse": {
      "type": "structure",
      "members": {
        "GrantArn": {
          "target": "com.amazonaws.licensemanager#Arn",
          "traits": {
            "smithy.api#documentation": "<p>Grant
ARN.</p>"
          }
        },
        "Status": {
          "target": "com.amazonaws.licensemanager#GrantStatus",
          "traits": {
            "smithy.api#documentation": "<p>Grant status.</p>"
          }
        },
        "Version": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Grant version.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanager#AccessDeniedException": {
      "type": "structure",
      "members": {
        "Message": {
          "target": "com.amazonaws.licensemanager#Message"
        }
      },
      "traits": {
        "aws.protocols#awsQueryError": {

  "code": "ServiceAccessDenied",
          "httpResponseCode": 401
        },
        "smithy.api#documentation": "<p>Access to resource denied.</p>",
        "smithy.api#error": "client",
        "smithy.api#httpError": 401
      }
    },
    "com.amazonaws.licensemanager#ActivationOverrideBehavior": {
      "type": "enum",
```

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      "members": {
        "DISTRIBUTED_GRANTS_ONLY": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "DISTRIBUTED_GRANTS_ONLY"
          }
        },
        "ALL_GRANTS_PERMITTED_BY_ISSUER": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "ALL_GRANTS_PERMITTED_BY_ISSUER"
          }
        }
      }
    },
    "com.amazonaws.licensemanager#AllowedOperation": {

   "type": "enum",
      "members": {
        "CREATE_GRANT": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "CreateGrant"
          }
        },
        "CHECKOUT_LICENSE": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "CheckoutLicense"
          }
        },
        "CHECKOUT_BORROW_LICENSE": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "CheckoutBorrowLicense"
          }
        },
        "CHECK_IN_LICENSE": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "CheckInLicense"
          }
        },
        "EXTEND_CONSUMPTION_LICENSE":
{
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "ExtendConsumptionLicense"
```

```
            }
          },
          "LIST_PURCHASED_LICENSES": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "ListPurchasedLicenses"
            }
          },
          "CREATE_TOKEN": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "CreateToken"
            }
          }
        }
      },
      "com.amazonaws.licensemanager#AllowedOperationList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#AllowedOperation"
        },
        "traits": {
          "smithy.api#length": {
            "min": 1,
            "max":
7
          }
        }
      },
      "com.amazonaws.licensemanager#Arn": {
        "type": "string",
        "traits": {
          "smithy.api#length": {
            "min": 0,
            "max": 2048
          },
          "smithy.api#pattern": "^arn:aws(-(cn|us-gov|iso-b|iso-c|iso-d))?:[A-Za-z0-9][A-Za-z0-9_/.-]{0,62}:[A-Za-
z0-9_/.-]{0,63}:[A-Za-z0-9_/.-]{0,63}:[A-Za-z0-9][A-Za-z0-9:_/+=,@.-]{0,1023}$"
        }
      },
      "com.amazonaws.licensemanager#ArnList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#Arn"
        }
      },
      "com.amazonaws.licensemanager#AuthorizationException": {
        "type": "structure",
```

```
        "members": {
          "Message": {
            "target": "com.amazonaws.licensemanager#Message"
          }
        },
        "traits": {
          "aws.protocols#awsQueryError":
{
            "code": "AuthorizationFailure",
            "httpResponseCode": 403
          },
          "smithy.api#documentation": "<p>The Amazon Web Services user account does not have permission to
perform the action. Check the IAM\n        policy associated with this account.</p>",
          "smithy.api#error": "client",
          "smithy.api#httpError": 403
        }
      },
      "com.amazonaws.licensemanager#AutomatedDiscoveryInformation": {
        "type": "structure",
        "members": {
          "LastRunTime": {
            "target": "com.amazonaws.licensemanager#DateTime",
            "traits": {
              "smithy.api#documentation": "<p>Time that automated discovery last ran.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Describes automated discovery.</p>"
        }
      },

    "com.amazonaws.licensemanager#Boolean": {
        "type": "boolean",
        "traits": {
          "smithy.api#default": false
        }
      },
      "com.amazonaws.licensemanager#BorrowConfiguration": {
        "type": "structure",
        "members": {
          "AllowEarlyCheckIn": {
            "target": "com.amazonaws.licensemanager#BoxBoolean",
            "traits": {
              "smithy.api#documentation": "<p>Indicates whether early check-ins are allowed.</p>",
              "smithy.api#required": {}
            }
          },
```

```
            "MaxTimeToLiveInMinutes": {
               "target": "com.amazonaws.licensemanager#BoxInteger",
               "traits": {
                  "smithy.api#documentation": "<p>Maximum time for the borrow configuration, in minutes.</p>",
                  "smithy.api#required": {}
               }
            }

},
         "traits": {
            "smithy.api#documentation": "<p>Details about a borrow configuration.</p>"
         }
      },
      "com.amazonaws.licensemanager#BoxBoolean": {
         "type": "boolean"
      },
      "com.amazonaws.licensemanager#BoxInteger": {
         "type": "integer"
      },
      "com.amazonaws.licensemanager#BoxLong": {
         "type": "long"
      },
      "com.amazonaws.licensemanager#CheckInLicense": {
         "type": "operation",
         "input": {
            "target": "com.amazonaws.licensemanager#CheckInLicenseRequest"
         },
         "output": {
            "target": "com.amazonaws.licensemanager#CheckInLicenseResponse"
         },
         "errors": [
            {
               "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
               "target": "com.amazonaws.licensemanager#AuthorizationException"

       },
            {
               "target": "com.amazonaws.licensemanager#ConflictException"
            },
            {
               "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
               "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
```

```
                "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Checks in the specified license. Check in a license when it is no longer
in use.</p>"
        }
    },
    "com.amazonaws.licensemanager#CheckInLicenseRequest":
{
        "type": "structure",
        "members": {
            "LicenseConsumptionToken": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>License consumption token.</p>",
                    "smithy.api#required": {}
                }
            },
            "Beneficiary": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>License beneficiary.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#CheckInLicenseResponse": {
        "type": "structure",
        "members": {},
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#CheckoutBorrowLicense":
{
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#CheckoutBorrowLicenseRequest"
```

```
        },
        "output": {
            "target": "com.amazonaws.licensemanager#CheckoutBorrowLicenseResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#EntitlementNotAllowedException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#NoEntitlementsAllowedException"
            },
            {
                "target":
"com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#RedirectException"
            },
            {
                "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
                "target": "com.amazonaws.licensemanager#UnsupportedDigitalSignatureMethodException"
            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Checks out the specified license for offline use.</p>"
        }
    },
    "com.amazonaws.licensemanager#CheckoutBorrowLicenseRequest": {
        "type": "structure",
        "members":
```

```
{
        "LicenseArn": {
          "target": "com.amazonaws.licensemanager#Arn",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license. The license must
use the borrow consumption configuration.</p>",
            "smithy.api#required": {}
          }
        },
        "Entitlements": {
          "target": "com.amazonaws.licensemanager#EntitlementDataList",
          "traits": {
            "smithy.api#documentation": "<p>License entitlements. Partial checkouts are not supported.</p>",
            "smithy.api#required": {}
          }
        },
        "DigitalSignatureMethod": {
          "target": "com.amazonaws.licensemanager#DigitalSignatureMethod",
          "traits": {
            "smithy.api#documentation": "<p>Digital signature method. The possible
 value is JSON Web Signature (JWS) algorithm PS384.\n        For more information, see <a
href=\"https://tools.ietf.org/html/rfc7518#section-3.5\">RFC 7518 Digital Signature with RSASSA-PSS</a>.</p>",
            "smithy.api#required": {}
          }
        },
        "NodeId": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Node ID.</p>"
          }
        },
        "CheckoutMetadata": {
          "target": "com.amazonaws.licensemanager#MetadataList",
          "traits": {
            "smithy.api#documentation": "<p>Information about constraints.</p>"
          }
        },
        "ClientToken": {
          "target": "com.amazonaws.licensemanager#ClientToken",
          "traits": {
            "smithy.api#documentation":
 "<p>Unique, case-sensitive identifier that you provide to ensure the idempotency of the request.</p>",
            "smithy.api#required": {}
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
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        }
      },
      "com.amazonaws.licensemanager#CheckoutBorrowLicenseResponse": {
        "type": "structure",
        "members": {
          "LicenseArn": {
            "target": "com.amazonaws.licensemanager#Arn",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>"
            }
          },
          "LicenseConsumptionToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>License consumption token.</p>"
            }
          },
          "EntitlementsAllowed":
{
            "target": "com.amazonaws.licensemanager#EntitlementDataList",
            "traits": {
              "smithy.api#documentation": "<p>Allowed license entitlements.</p>"
            }
          },
          "NodeId": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Node ID.</p>"
            }
          },
          "SignedToken": {
            "target": "com.amazonaws.licensemanager#SignedToken",
            "traits": {
              "smithy.api#documentation": "<p>Signed token.</p>"
            }
          },
          "IssuedAt": {
            "target": "com.amazonaws.licensemanager#ISO8601DateTime",
            "traits": {
              "smithy.api#documentation": "<p>Date and time at which the license checkout
is issued.</p>"
            }
          },
          "Expiration": {
            "target": "com.amazonaws.licensemanager#ISO8601DateTime",
            "traits": {
              "smithy.api#documentation": "<p>Date and time at which the license checkout expires.</p>"
            }
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            },
            "CheckoutMetadata": {
               "target": "com.amazonaws.licensemanager#MetadataList",
               "traits": {
                  "smithy.api#documentation": "<p>Information about constraints.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#output": {}
         }
      },
      "com.amazonaws.licensemanager#CheckoutLicense": {
         "type": "operation",
         "input": {
            "target": "com.amazonaws.licensemanager#CheckoutLicenseRequest"
         },
         "output": {
            "target": "com.amazonaws.licensemanager#CheckoutLicenseResponse"
          },
         "errors": [
            {
               "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
               "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
               "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
               "target": "com.amazonaws.licensemanager#NoEntitlementsAllowedException"
            },
            {
               "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
               "target": "com.amazonaws.licensemanager#RedirectException"
            },
            {
               "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
            },
            {
               "target":
"com.amazonaws.licensemanager#ServerInternalException"
            },
            {
               "target": "com.amazonaws.licensemanager#UnsupportedDigitalSignatureMethodException"
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            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Checks out the specified license.</p>\n        <note>\n        <p>If the account that created the license is the same that is performing the check out, you must\n        specify the account as the beneficiary.</p>\n        </note>"
        }
    },
    "com.amazonaws.licensemanager#CheckoutLicenseRequest": {
        "type": "structure",
        "members": {
            "ProductSKU": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Product SKU.</p>",
                    "smithy.api#required": {}
                }
            },
            "CheckoutType": {
                "target": "com.amazonaws.licensemanager#CheckoutType",
                "traits": {
                    "smithy.api#documentation": "<p>Checkout type.</p>",
                    "smithy.api#required": {}
                }
            },
            "KeyFingerprint": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Key fingerprint identifying the license.</p>",
                    "smithy.api#required": {}
                }
            },
            "Entitlements": {
                "target": "com.amazonaws.licensemanager#EntitlementDataList",
                "traits": {
                    "smithy.api#documentation": "<p>License entitlements.</p>",

    "smithy.api#required": {}
                }
            },
            "ClientToken": {
                "target": "com.amazonaws.licensemanager#ClientToken",
                "traits": {
                    "smithy.api#documentation": "<p>Unique, case-sensitive identifier that you provide to ensure the
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idempotency of the request.</p>",
                    "smithy.api#required": {}
                }
            },
            "Beneficiary": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>License beneficiary.</p>"
                }
            },
            "NodeId": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Node ID.</p>"
                }
            }
        },
        "traits": {

        "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#CheckoutLicenseResponse": {
        "type": "structure",
        "members": {
            "CheckoutType": {
                "target": "com.amazonaws.licensemanager#CheckoutType",
                "traits": {
                    "smithy.api#documentation": "<p>Checkout type.</p>"
                }
            },
            "LicenseConsumptionToken": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>License consumption token.</p>"
                }
            },
            "EntitlementsAllowed": {
                "target": "com.amazonaws.licensemanager#EntitlementDataList",
                "traits": {
                    "smithy.api#documentation": "<p>Allowed license entitlements.</p>"
                }
            },
            "SignedToken": {
                "target": "com.amazonaws.licensemanager#SignedToken",
                "traits": {
                    "smithy.api#documentation": "<p>Signed token.</p>"
                }
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            },
            "NodeId": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Node ID.</p>"
              }
            },
            "IssuedAt": {
              "target": "com.amazonaws.licensemanager#ISO8601DateTime",
              "traits": {
                "smithy.api#documentation": "<p>Date and time at which the license checkout is issued.</p>"
              }
            },
            "Expiration": {
              "target": "com.amazonaws.licensemanager#ISO8601DateTime",
              "traits": {
                "smithy.api#documentation": "<p>Date and
time at which the license checkout expires.</p>"
              }
            },
            "LicenseArn": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the checkout license.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#output": {}
          }
        },
        "com.amazonaws.licensemanager#CheckoutType": {
          "type": "enum",
          "members": {
            "PROVISIONAL": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "PROVISIONAL"
              }
            },
            "PERPETUAL": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "PERPETUAL"
              }
             }
          }
        },
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    "com.amazonaws.licensemanager#ClientRequestToken": {
      "type": "string",
      "traits": {
        "smithy.api#length": {
          "min": 1,
          "max": 36
        }
      }
    },
    "com.amazonaws.licensemanager#ClientToken": {
      "type": "string",
      "traits": {
        "smithy.api#length": {
          "min": 0,
          "max": 2048
        },
        "smithy.api#pattern": "^\\S+$"
      }
    },
    "com.amazonaws.licensemanager#ConflictException": {
      "type": "structure",
      "members": {
        "Message": {
          "target": "com.amazonaws.licensemanager#Message"
        }
      },
      "traits": {
        "aws.protocols#awsQueryError": {
          "code": "ConflictException",
          "httpResponseCode":
409
        },
        "smithy.api#documentation": "<p>There was a conflict processing the request. Try your request
again.</p>",
        "smithy.api#error": "client",
        "smithy.api#httpError": 409
      }
    },
    "com.amazonaws.licensemanager#ConsumedLicenseSummary": {
      "type": "structure",
      "members": {
        "ResourceType": {
          "target": "com.amazonaws.licensemanager#ResourceType",
          "traits": {
            "smithy.api#documentation": "<p>Resource type of the resource consuming a license.</p>"
          }
        },
        "ConsumedLicenses": {
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            "target": "com.amazonaws.licensemanager#BoxLong",
            "traits": {
              "smithy.api#documentation": "<p>Number of licenses consumed by the resource.</p>"
            }
          }
        },

"traits": {
          "smithy.api#documentation": "<p>Details about license consumption.</p>"
        }
    },
    "com.amazonaws.licensemanager#ConsumedLicenseSummaryList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanager#ConsumedLicenseSummary"
      }
    },
    "com.amazonaws.licensemanager#ConsumptionConfiguration": {
      "type": "structure",
      "members": {
        "RenewType": {
          "target": "com.amazonaws.licensemanager#RenewType",
          "traits": {
            "smithy.api#documentation": "<p>Renewal frequency.</p>"
          }
        },
        "ProvisionalConfiguration": {
          "target": "com.amazonaws.licensemanager#ProvisionalConfiguration",
          "traits": {
            "smithy.api#documentation": "<p>Details about a provisional configuration.</p>"
           }
        },
        "BorrowConfiguration": {
          "target": "com.amazonaws.licensemanager#BorrowConfiguration",
          "traits": {
            "smithy.api#documentation": "<p>Details about a borrow configuration.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>Details about a consumption configuration.</p>"
      }
    },
    "com.amazonaws.licensemanager#CreateGrant": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#CreateGrantRequest"
      },
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        "output": {
            "target": "com.amazonaws.licensemanager#CreateGrantResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target":
 "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Creates a grant for the specified license. A grant shares the use of
 license\n        entitlements with a specific Amazon Web Services account, an organization, or an\n
 organizational unit (OU). For more
  information, see <a href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/granted-
 licenses.html\">Granted licenses in License Manager</a> in the <i>License Manager User Guide</i>.</p>"
        }
    },
    "com.amazonaws.licensemanager#CreateGrantRequest": {
        "type": "structure",
        "members": {
            "ClientToken": {
                "target": "com.amazonaws.licensemanager#ClientToken",
                "traits": {
                    "smithy.api#documentation": "<p>Unique, case-sensitive identifier that you provide to ensure the
 idempotency of the request.</p>",
                    "smithy.api#required": {}
                }
            },
            "GrantName": {
                "target": "com.amazonaws.licensemanager#String",
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            "traits": {
                "smithy.api#documentation": "<p>Grant name.</p>",
                "smithy.api#required": {}

    }
        },
        "LicenseArn": {
            "target": "com.amazonaws.licensemanager#Arn",
            "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>",
                "smithy.api#required": {}
            }
        },
        "Principals": {
            "target": "com.amazonaws.licensemanager#PrincipalArnList",
            "traits": {
                "smithy.api#documentation": "<p>The grant principals. You can specify one of the following as an Amazon Resource Name\n (ARN):</p>\n <ul>\n <li>\n <p>An Amazon Web Services account, which includes only the account specified.</p>\n </li>\n </ul>\n <ul>\n <li>\n <p>An organizational unit (OU), which includes all accounts in the OU.</p>\n </li>\n </ul>\n <ul>\n
        <li>\n <p>An organization, which will include all accounts across your organization.</p>\n </li>\n </ul>",
                "smithy.api#required": {}
            }
        },
        "HomeRegion": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Home Region of the grant.</p>",
                "smithy.api#required": {}
            }
        },
        "AllowedOperations": {
            "target": "com.amazonaws.licensemanager#AllowedOperationList",
            "traits": {
                "smithy.api#documentation": "<p>Allowed operations for the grant.</p>",
                "smithy.api#required": {}
            }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },

    "com.amazonaws.licensemanager#CreateGrantResponse": {
      "type": "structure",
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      "members": {
        "GrantArn": {
          "target": "com.amazonaws.licensemanager#Arn",
          "traits": {
            "smithy.api#documentation": "<p>Grant ARN.</p>"
          }
        },
        "Status": {
          "target": "com.amazonaws.licensemanager#GrantStatus",
          "traits": {
            "smithy.api#documentation": "<p>Grant status.</p>"
          }
        },
        "Version": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Grant version.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanager#CreateGrantVersion":
{
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#CreateGrantVersionRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#CreateGrantVersionResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
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            },
            {
               "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
               "target": "com.amazonaws.licensemanager#ValidationException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Creates a new version of the specified grant. For more information, see\n        <a href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/granted-licenses.html\">Granted licenses in License Manager</a> in the <i>License Manager User Guide</i>.</p>"
         }
      },
      "com.amazonaws.licensemanager#CreateGrantVersionRequest": {
         "type": "structure",
         "members": {
            "ClientToken": {
               "target": "com.amazonaws.licensemanager#ClientToken",
               "traits": {
                  "smithy.api#documentation": "<p>Unique, case-sensitive identifier that you provide to ensure the idempotency of the request.</p>",

   "smithy.api#required": {}
               }
            },
            "GrantArn": {
               "target": "com.amazonaws.licensemanager#Arn",
               "traits": {
                  "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the grant.</p>",
                  "smithy.api#required": {}
               }
            },
            "GrantName": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Grant name.</p>"
               }
            },
            "AllowedOperations": {
               "target": "com.amazonaws.licensemanager#AllowedOperationList",
               "traits": {
                  "smithy.api#documentation": "<p>Allowed operations for the grant.</p>"
               }
            },
            "Status": {
               "target": "com.amazonaws.licensemanager#GrantStatus",
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            "traits": {
                "smithy.api#documentation": "<p>Grant status.</p>"
            }
        },
        "StatusReason": {
            "target": "com.amazonaws.licensemanager#StatusReasonMessage",
            "traits": {
                "smithy.api#documentation": "<p>Grant status reason.</p>"
            }
        },
        "SourceVersion": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Current version of the grant.</p>"
            }
        },
        "Options": {
            "target": "com.amazonaws.licensemanager#Options",
            "traits": {
                "smithy.api#documentation": "<p>The options specified for the grant.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#input": {}
    }
},
"com.amazonaws.licensemanager#CreateGrantVersionResponse": {
    "type": "structure",
    "members": {
        "GrantArn": {
            "target": "com.amazonaws.licensemanager#Arn",
            "traits": {
                "smithy.api#documentation": "<p>Grant ARN.</p>"
            }
        },
        "Status": {
            "target": "com.amazonaws.licensemanager#GrantStatus",
            "traits": {
                "smithy.api#documentation": "<p>Grant status.</p>"
            }
        },
        "Version": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>New version of the grant.</p>"
            }
        }
```

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        },
        "traits":
{
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#CreateLicense": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#CreateLicenseRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#CreateLicenseResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#RedirectException"
             },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Creates a license.</p>"
        }
    },
    "com.amazonaws.licensemanager#CreateLicenseConfiguration": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#CreateLicenseConfigurationRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#CreateLicenseConfigurationResponse"
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        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
             },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Creates a license configuration.</p>\n            <p>A license configuration
is an abstraction of a customer license agreement that can be\n            consumed and enforced by License Manager.
Components include specifications for the license\n            type (licensing by instance, socket, CPU, or vCPU),
allowed tenancy (shared tenancy, \n            Dedicated Instance, Dedicated Host, or
 all of these), license affinity  to host (how long a \n            license must be associated with a host), and the number of
licenses purchased and used.</p>"
        }
    },
    "com.amazonaws.licensemanager#CreateLicenseConfigurationRequest": {
        "type": "structure",
        "members": {
            "Name": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Name of the license configuration.</p>",
                    "smithy.api#required": {}
                }
            },
            "Description": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Description of the license configuration.</p>"
                }
            },
            "LicenseCountingType": {
                "target": "com.amazonaws.licensemanager#LicenseCountingType",
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            "traits": {
              "smithy.api#documentation": "<p>Dimension used to track the license inventory.</p>",
              "smithy.api#required": {}
            }
          },
          "LicenseCount": {
            "target": "com.amazonaws.licensemanager#BoxLong",
            "traits": {
              "smithy.api#documentation": "<p>Number of licenses managed by the license configuration.</p>"
            }
          },
          "LicenseCountHardLimit": {
            "target": "com.amazonaws.licensemanager#BoxBoolean",
            "traits": {
              "smithy.api#documentation": "<p>Indicates whether hard or soft license enforcement is used.
Exceeding a hard limit\n        blocks the launch of new instances.</p>"
            }
          },
          "LicenseRules": {
            "target":
 "com.amazonaws.licensemanager#StringList",
            "traits": {
              "smithy.api#documentation": "<p>License rules. The syntax is #name=value (for example,
#allowedTenancy=EC2-DedicatedHost). The available rules \n        vary by dimension, as follows.</p>\n
<ul>\n          <li>\n            <p>\n              <code>Cores</code> dimension: <code>allowedTenancy</code> |\n
        <code>licenseAffinityToHost</code> |\n            <code>maximumCores</code> |
<code>minimumCores</code>\n            </p>\n          </li>\n          <li>\n            <p>\n
<code>Instances</code> dimension: <code>allowedTenancy</code> | \n            <code>maximumCores</code> |
<code>minimumCores</code> |\n            <code>maximumSockets</code> | <code>minimumSockets</code> |\n
        <code>maximumVcpus</code> | <code>minimumVcpus</code>\n            </p>\n          </li>\n
<li>\n
  <p>\n            <code>Sockets</code> dimension: <code>allowedTenancy</code> | \n
<code>licenseAffinityToHost</code> |\n            <code>maximumSockets</code> |
<code>minimumSockets</code>\n            </p>\n          </li>\n          <li>\n            <p>\n
<code>vCPUs</code> dimension: <code>allowedTenancy</code> | \n
<code>honorVcpuOptimization</code> | \n            <code>maximumVcpus</code> |
<code>minimumVcpus</code>\n            </p>\n          </li>\n        </ul>\n        <p>The unit for
<code>licenseAffinityToHost</code> is days and the range is 1 to 180. The possible \n        values for
<code>allowedTenancy</code> are <code>EC2-Default</code>, <code>EC2-DedicatedHost</code>, and \n
<code>EC2-DedicatedInstance</code>. The possible values for <code>honorVcpuOptimization</code> are \n
<code>True</code> and <code>False</code>.</p>"
            }
          },

  "Tags": {
            "target": "com.amazonaws.licensemanager#TagList",
            "traits": {
              "smithy.api#documentation": "<p>Tags to add to the license configuration.</p>"
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            }
          },
          "DisassociateWhenNotFound": {
            "target": "com.amazonaws.licensemanager#BoxBoolean",
            "traits": {
              "smithy.api#documentation": "<p>When true, disassociates a resource when software is
uninstalled.</p>"
            }
          },
          "ProductInformationList": {
            "target": "com.amazonaws.licensemanager#ProductInformationList",
            "traits": {
              "smithy.api#documentation": "<p>Product information.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#CreateLicenseConfigurationResponse":
{
        "type": "structure",
        "members": {
          "LicenseConfigurationArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license configuration.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#CreateLicenseConversionTaskForResource": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#CreateLicenseConversionTaskForResourceRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#CreateLicenseConversionTaskForResourceResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
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            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          },
          {
            "target": "com.amazonaws.licensemanager#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Creates a new license conversion task.</p>"
        }
      },
      "com.amazonaws.licensemanager#CreateLicenseConversionTaskForResourceRequest": {
        "type": "structure",
        "members": {
          "ResourceArn": {

            "target": "com.amazonaws.licensemanager#Arn",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the resource you are converting
the license type for.</p>",
              "smithy.api#required": {}
            }
          },
          "SourceLicenseContext": {
            "target": "com.amazonaws.licensemanager#LicenseConversionContext",
            "traits": {
              "smithy.api#documentation": "<p>Information that identifies the license type you are converting
from. \n\n         For the structure of the source license, see <a href=\"https://docs.aws.amazon.com/license-
manager/latest/userguide/conversion-procedures.html#conversion-cli\">Convert a license type using the CLI </a> in
the <i>License Manager User Guide</i>.</p>",
              "smithy.api#required": {}
            }
          },
          "DestinationLicenseContext":
{
            "target": "com.amazonaws.licensemanager#LicenseConversionContext",
            "traits": {
              "smithy.api#documentation": "<p>Information that identifies the license type you are converting to.
For the structure of the destination license, see <a href=\"https://docs.aws.amazon.com/license-
manager/latest/userguide/conversion-procedures.html#conversion-cli\">Convert a license type using the CLI </a> in
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the <i>License Manager User Guide</i>.</p>",
                    "smithy.api#required": {}
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#CreateLicenseConversionTaskForResourceResponse": {
        "type": "structure",
        "members": {
            "LicenseConversionTaskId": {
                "target": "com.amazonaws.licensemanager#LicenseConversionTaskId",

       "traits": {
                    "smithy.api#documentation": "<p>The ID of the created license type conversion task.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#CreateLicenseManagerReportGenerator": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#CreateLicenseManagerReportGeneratorRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#CreateLicenseManagerReportGeneratorResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
             },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
```

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            {
               "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
            },
            {
               "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
               "target": "com.amazonaws.licensemanager#ValidationException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Creates a report generator.</p>"
         }
      },
      "com.amazonaws.licensemanager#CreateLicenseManagerReportGeneratorRequest": {
         "type": "structure",
         "members": {
            "ReportGeneratorName":
{
               "target": "com.amazonaws.licensemanager#ReportGeneratorName",
               "traits": {
                  "smithy.api#documentation": "<p>Name of the report generator.</p>",
                  "smithy.api#required": {}
               }
            },
            "Type": {
               "target": "com.amazonaws.licensemanager#ReportTypeList",
               "traits": {
                  "smithy.api#documentation": "<p>Type of reports to generate. The following report types an be
generated:</p>\n        <ul>\n        <li>\n        <p>License configuration report - Reports the number and
details of consumed licenses for a license configuration.</p>\n        </li>\n        <li>\n        <p>Resource
report - Reports the tracked licenses and resource consumption for a license configuration.</p>\n        </li>\n
</ul>",
                  "smithy.api#required": {}

      }
            },
            "ReportContext": {
               "target": "com.amazonaws.licensemanager#ReportContext",
               "traits": {
                  "smithy.api#documentation": "<p>Defines the type of license configuration the report generator
tracks.</p>",
                  "smithy.api#required": {}
               }
            },
            "ReportFrequency": {
               "target": "com.amazonaws.licensemanager#ReportFrequency",
               "traits": {
```

```
                "smithy.api#documentation": "<p>Frequency by which reports are generated.  Reports can be
generated daily, monthly, or weekly.</p>",
                "smithy.api#required": {}
              }
            },
            "ClientToken": {
              "target": "com.amazonaws.licensemanager#ClientRequestToken",
              "traits": {
                "smithy.api#documentation": "<p>Unique,
 case-sensitive identifier that you provide to ensure the idempotency of the request.</p>",
                "smithy.api#required": {}
              }
            },
            "Description": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Description of the report generator.</p>"
              }
            },
            "Tags": {
              "target": "com.amazonaws.licensemanager#TagList",
              "traits": {
                "smithy.api#documentation": "<p>Tags to add to the report generator.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#input": {}
          }
        },
        "com.amazonaws.licensemanager#CreateLicenseManagerReportGeneratorResponse": {
          "type": "structure",
          "members": {
            "LicenseManagerReportGeneratorArn":
 {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the new report
generator.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#output": {}
          }
        },
        "com.amazonaws.licensemanager#CreateLicenseRequest": {
          "type": "structure",
```

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        "members": {
            "LicenseName": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>License name.</p>",
                    "smithy.api#required": {}
                }
            },
            "ProductName": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Product
name.</p>",
                    "smithy.api#required": {}
                }
            },
            "ProductSKU": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Product SKU.</p>",
                    "smithy.api#required": {}
                }
            },
            "Issuer": {
                "target": "com.amazonaws.licensemanager#Issuer",
                "traits": {
                    "smithy.api#documentation": "<p>License issuer.</p>",
                    "smithy.api#required": {}
                }
            },
            "HomeRegion": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Home Region for the license.</p>",
                    "smithy.api#required": {}

    }
            },
            "Validity": {
                "target": "com.amazonaws.licensemanager#DatetimeRange",
                "traits": {
                    "smithy.api#documentation": "<p>Date and time range during which the license is valid, in ISO8601-
UTC format.</p>",
                    "smithy.api#required": {}
                }
            },
            "Entitlements": {
                "target": "com.amazonaws.licensemanager#EntitlementList",
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            "traits": {
              "smithy.api#documentation": "<p>License entitlements.</p>",
              "smithy.api#required": {}
            }
          },
          "Beneficiary": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>License beneficiary.</p>",
              "smithy.api#required": {}
            }
          },
          "ConsumptionConfiguration": {
            "target": "com.amazonaws.licensemanager#ConsumptionConfiguration",
            "traits": {
              "smithy.api#documentation": "<p>Configuration for consumption of the license. Choose a provisional
configuration for workloads\n          running with continuous connectivity. Choose a borrow configuration for
workloads with offline\n          usage.</p>",
              "smithy.api#required": {}
            }
          },
          "LicenseMetadata": {
            "target": "com.amazonaws.licensemanager#MetadataList",
            "traits": {
              "smithy.api#documentation": "<p>Information about the license.</p>"
            }
          },
          "ClientToken": {
            "target": "com.amazonaws.licensemanager#ClientToken",
            "traits": {
              "smithy.api#documentation":
 "<p>Unique, case-sensitive identifier that you provide to ensure the idempotency of the request.</p>",
              "smithy.api#required": {}
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#CreateLicenseResponse": {
        "type": "structure",
        "members": {
          "LicenseArn": {
            "target": "com.amazonaws.licensemanager#Arn",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>"
            }
```

```
        },
        "Status": {
          "target": "com.amazonaws.licensemanager#LicenseStatus",
          "traits": {
            "smithy.api#documentation": "<p>License status.</p>"
          }
        },
        "Version": {
           "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>License version.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanager#CreateLicenseVersion": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#CreateLicenseVersionRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#CreateLicenseVersionResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#ConflictException"
         },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#RedirectException"
        },
        {
          "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
```

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            {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Creates a new version of the specified license.</p>"
        }
    },
    "com.amazonaws.licensemanager#CreateLicenseVersionRequest": {
        "type": "structure",
        "members": {
            "LicenseArn": {
                "target":
"com.amazonaws.licensemanager#Arn",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>",
                    "smithy.api#required": {}
                }
            },
            "LicenseName": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>License name.</p>",
                    "smithy.api#required": {}
                }
            },
            "ProductName": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Product name.</p>",
                    "smithy.api#required": {}
                }
            },
            "Issuer": {
                "target": "com.amazonaws.licensemanager#Issuer",
                "traits":
{
                    "smithy.api#documentation": "<p>License issuer.</p>",
                    "smithy.api#required": {}
                }
            },
            "HomeRegion": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Home Region of the license.</p>",
                    "smithy.api#required": {}
                }
            },
```

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        "Validity": {
          "target": "com.amazonaws.licensemanager#DatetimeRange",
          "traits": {
            "smithy.api#documentation": "<p>Date and time range during which the license is valid, in ISO8601-
UTC format.</p>",
            "smithy.api#required": {}
          }
        },
        "LicenseMetadata": {
          "target": "com.amazonaws.licensemanager#MetadataList",
          "traits": {
            "smithy.api#documentation": "<p>Information about the license.</p>"
          }
        },
        "Entitlements": {
          "target": "com.amazonaws.licensemanager#EntitlementList",
          "traits": {
            "smithy.api#documentation": "<p>License entitlements.</p>",
            "smithy.api#required": {}
          }
        },
        "ConsumptionConfiguration": {
          "target": "com.amazonaws.licensemanager#ConsumptionConfiguration",
          "traits": {
            "smithy.api#documentation": "<p>Configuration for consumption of the license. Choose a provisional
configuration for workloads\n        running with continuous connectivity. Choose a borrow configuration for
workloads with offline\n        usage.</p>",
            "smithy.api#required": {}
          }
        },

  "Status": {
          "target": "com.amazonaws.licensemanager#LicenseStatus",
          "traits": {
            "smithy.api#documentation": "<p>License status.</p>",
            "smithy.api#required": {}
          }
        },
        "ClientToken": {
          "target": "com.amazonaws.licensemanager#ClientToken",
          "traits": {
            "smithy.api#documentation": "<p>Unique, case-sensitive identifier that you provide to ensure the
idempotency of the request.</p>",
            "smithy.api#required": {}
          }
        },
        "SourceVersion": {
          "target": "com.amazonaws.licensemanager#String",
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            "traits": {
                "smithy.api#documentation": "<p>Current version of the license.</p>"
            }
          }
        },
        "traits": {

"smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#CreateLicenseVersionResponse": {
        "type": "structure",
        "members": {
          "LicenseArn": {
            "target": "com.amazonaws.licensemanager#Arn",
            "traits": {
              "smithy.api#documentation": "<p>License ARN.</p>"
            }
          },
          "Version": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>New version of the license.</p>"
            }
          },
          "Status": {
            "target": "com.amazonaws.licensemanager#LicenseStatus",
            "traits": {
              "smithy.api#documentation": "<p>License status.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output":
{}
        }
      },
      "com.amazonaws.licensemanager#CreateToken": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#CreateTokenRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#CreateTokenResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
```

```
            },
            {
               "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
               "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
               "target": "com.amazonaws.licensemanager#RedirectException"
            },
            {
               "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },

      {
               "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
            },
            {
               "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
               "target": "com.amazonaws.licensemanager#ValidationException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Creates a long-lived token.</p>\n         <p>A refresh token is a JWT token used to get an access token. With an access token,\n         you can call AssumeRoleWithWebIdentity to get role credentials that you can use to \n         call License Manager to manage the specified license.</p>"
         }
      },
      "com.amazonaws.licensemanager#CreateTokenRequest": {
         "type": "structure",
         "members": {
            "LicenseArn": {
               "target": "com.amazonaws.licensemanager#Arn",
               "traits":
{
                  "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license. The ARN is mapped to the aud claim of the\n         JWT token.</p>",
                  "smithy.api#required": {}
               }
            },
            "RoleArns": {
               "target": "com.amazonaws.licensemanager#ArnList",
               "traits": {
                  "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the IAM roles to embed in the token. \n         License Manager does not check whether the roles are in use.</p>"
               }
```

```
        },
        "ExpirationInDays": {
          "target": "com.amazonaws.licensemanager#Integer",
          "traits": {
            "smithy.api#documentation": "<p>Token expiration, in days, counted from token creation. The default is 365 days.</p>"
          }
        },
        "TokenProperties": {
          "target": "com.amazonaws.licensemanager#MaxSize3StringList",
          "traits": {
            "smithy.api#documentation": "<p>Data specified by the caller to be included in the JWT token. The data is mapped\n          to the amr claim of the JWT token.</p>"
          }
        },
        "ClientToken": {
          "target": "com.amazonaws.licensemanager#ClientToken",
          "traits": {
            "smithy.api#documentation": "<p>Idempotency token, valid for 10 minutes.</p>",
            "smithy.api#required": {}
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#CreateTokenResponse": {
      "type": "structure",
      "members": {
        "TokenId": {
          "target": "com.amazonaws.licensemanager#String",

          "traits": {
            "smithy.api#documentation": "<p>Token ID.</p>"
          }
        },
        "TokenType": {
          "target": "com.amazonaws.licensemanager#TokenType",
          "traits": {
            "smithy.api#documentation": "<p>Token type.</p>"
          }
        },
        "Token": {
          "target": "com.amazonaws.licensemanager#TokenString",
          "traits": {
            "smithy.api#documentation": "<p>Refresh token, encoded as a JWT token.</p>"
          }
```

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        }
    },
    "traits": {
        "smithy.api#output": {}
    }
},
"com.amazonaws.licensemanager#DateTime": {
    "type": "timestamp"
},
"com.amazonaws.licensemanager#DatetimeRange": {
    "type": "structure",
    "members": {
        "Begin": {
            "target": "com.amazonaws.licensemanager#ISO8601DateTime",
            "traits": {
                "smithy.api#documentation": "<p>Start of the time range.</p>",
                "smithy.api#required": {}
            }
        },
        "End": {
            "target": "com.amazonaws.licensemanager#ISO8601DateTime",
            "traits": {
                "smithy.api#documentation": "<p>End of the time range.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#documentation": "<p>Describes a time range, in ISO8601-UTC format.</p>"
    }
},
"com.amazonaws.licensemanager#DeleteGrant": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanager#DeleteGrantRequest"
    },
    "output": {
        "target": "com.amazonaws.licensemanager#DeleteGrantResponse"
    },
    "errors": [
        {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
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            {
               "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
               "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
               "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
               "target": "com.amazonaws.licensemanager#ValidationException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Deletes
the specified grant.</p>"
         }
      },
      "com.amazonaws.licensemanager#DeleteGrantRequest": {
         "type": "structure",
         "members": {
            "GrantArn": {
               "target": "com.amazonaws.licensemanager#Arn",
               "traits": {
                  "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the grant.</p>",
                  "smithy.api#required": {}
               }
            },
            "StatusReason": {
               "target": "com.amazonaws.licensemanager#StatusReasonMessage",
               "traits": {
                  "smithy.api#documentation": "<p>The Status reason for the delete request.</p>"
               }
            },
            "Version": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Current version of the
grant.</p>",
                  "smithy.api#required": {}
               }
            }
         },
         "traits": {
            "smithy.api#input": {}
         }
      },
      "com.amazonaws.licensemanager#DeleteGrantResponse": {
```

```
        "type": "structure",
        "members": {
          "GrantArn": {
            "target": "com.amazonaws.licensemanager#Arn",
            "traits": {
              "smithy.api#documentation": "<p>Grant ARN.</p>"
            }
          },
          "Status": {
            "target": "com.amazonaws.licensemanager#GrantStatus",
            "traits": {
              "smithy.api#documentation": "<p>Grant status.</p>"
            }
          },
          "Version": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation":
"<p>Grant version.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#DeleteLicense": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#DeleteLicenseRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#DeleteLicenseResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#ConflictException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
```

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},
            {
               "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
               "target": "com.amazonaws.licensemanager#RedirectException"
            },
            {
               "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
               "target": "com.amazonaws.licensemanager#ValidationException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Deletes the specified license.</p>"
         }
      },
      "com.amazonaws.licensemanager#DeleteLicenseConfiguration": {
         "type": "operation",
         "input": {
            "target": "com.amazonaws.licensemanager#DeleteLicenseConfigurationRequest"
         },
         "output": {
            "target": "com.amazonaws.licensemanager#DeleteLicenseConfigurationResponse"
         },

      "errors": [
            {
               "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
               "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
               "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
               "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
               "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Deletes the specified license configuration.</p>\n         <p>You cannot
delete a license configuration that is in use.</p>"
         }
```

```
    },
    "com.amazonaws.licensemanager#DeleteLicenseConfigurationRequest": {
      "type": "structure",
      "members":
{
        "LicenseConfigurationArn": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>ID of the license configuration.</p>",
            "smithy.api#required": {}
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#DeleteLicenseConfigurationResponse": {
      "type": "structure",
      "members": {},
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanager#DeleteLicenseManagerReportGenerator": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#DeleteLicenseManagerReportGeneratorRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#DeleteLicenseManagerReportGeneratorResponse"
       },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
        },
```

```
            {
               "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
            },
            {
               "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
               "target": "com.amazonaws.licensemanager#ValidationException"
             }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Deletes the specified report generator.</p>\n         <p>This action deletes the report generator, which stops it from generating future reports.\n         The action cannot be reversed. It has no effect on the previous reports from this generator.</p>"
         }
      },
      "com.amazonaws.licensemanager#DeleteLicenseManagerReportGeneratorRequest": {
         "type": "structure",
         "members": {
            "LicenseManagerReportGeneratorArn": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the report generator to be deleted.</p>",
                  "smithy.api#required": {}
               }
            }
         },
         "traits": {

  "smithy.api#input": {}
         }
      },
      "com.amazonaws.licensemanager#DeleteLicenseManagerReportGeneratorResponse": {
         "type": "structure",
         "members": {},
         "traits": {
            "smithy.api#output": {}
         }
      },
      "com.amazonaws.licensemanager#DeleteLicenseRequest": {
         "type": "structure",
         "members": {
            "LicenseArn": {
               "target": "com.amazonaws.licensemanager#Arn",
               "traits": {
                  "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>",
                  "smithy.api#required": {}
```

```
            }
          },
          "SourceVersion": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Current version of the license.</p>",
              "smithy.api#required":
{}
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#DeleteLicenseResponse": {
        "type": "structure",
        "members": {
          "Status": {
            "target": "com.amazonaws.licensemanager#LicenseDeletionStatus",
            "traits": {
              "smithy.api#documentation": "<p>License status.</p>"
            }
          },
          "DeletionDate": {
            "target": "com.amazonaws.licensemanager#ISO8601DateTime",
            "traits": {
              "smithy.api#documentation": "<p>Date when the license is deleted.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#DeleteToken": {
        "type": "operation",
         "input": {
          "target": "com.amazonaws.licensemanager#DeleteTokenRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#DeleteTokenResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
```

```
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#RedirectException"
          },
          {
            "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          },

    {
            "target": "com.amazonaws.licensemanager#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Deletes the specified token. Must be called in the license home
Region.</p>"
        }
      },
      "com.amazonaws.licensemanager#DeleteTokenRequest": {
        "type": "structure",
        "members": {
          "TokenId": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token ID.</p>",
              "smithy.api#required": {}
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#DeleteTokenResponse": {
        "type": "structure",
        "members": {},
        "traits": {
          "smithy.api#output": {}

      }
      },
      "com.amazonaws.licensemanager#DigitalSignatureMethod": {
```

```
        "type": "enum",
        "members": {
          "JWT_PS384": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "JWT_PS384"
            }
          }
        }
      },
      "com.amazonaws.licensemanager#Entitlement": {
        "type": "structure",
        "members": {
          "Name": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Entitlement name.</p>",
              "smithy.api#required": {}
            }
          },
          "Value": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Entitlement resource. Use only
if the unit is None.</p>"
            }
          },
          "MaxCount": {
            "target": "com.amazonaws.licensemanager#Long",
            "traits": {
              "smithy.api#documentation": "<p>Maximum entitlement count. Use if the unit is not None.</p>"
            }
          },
          "Overage": {
            "target": "com.amazonaws.licensemanager#BoxBoolean",
            "traits": {
              "smithy.api#documentation": "<p>Indicates whether overages are allowed.</p>"
            }
          },
          "Unit": {
            "target": "com.amazonaws.licensemanager#EntitlementUnit",
            "traits": {
              "smithy.api#documentation": "<p>Entitlement unit.</p>",
              "smithy.api#required": {}
            }
          },
          "AllowCheckIn": {
            "target":
```

```
"com.amazonaws.licensemanager#BoxBoolean",
                "traits": {
                    "smithy.api#documentation": "<p>Indicates whether check-ins are allowed.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>Describes a resource entitled for use with a license.</p>"
        }
    },
    "com.amazonaws.licensemanager#EntitlementData": {
        "type": "structure",
        "members": {
            "Name": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Entitlement data name.</p>",
                    "smithy.api#required": {}
                }
            },
            "Value": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Entitlement
data value.</p>"
                }
            },
            "Unit": {
                "target": "com.amazonaws.licensemanager#EntitlementDataUnit",
                "traits": {
                    "smithy.api#documentation": "<p>Entitlement data unit.</p>",
                    "smithy.api#required": {}
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>Data associated with an entitlement resource.</p>"
        }
    },
    "com.amazonaws.licensemanager#EntitlementDataList": {
        "type": "list",
        "member": {
            "target": "com.amazonaws.licensemanager#EntitlementData"
        }
    },
    "com.amazonaws.licensemanager#EntitlementDataUnit": {
        "type": "enum",
        "members": {
```

```
            "COUNT": {
               "target": "smithy.api#Unit",
               "traits": {

"smithy.api#enumValue": "Count"
               }
            },
            "NONE": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "None"
               }
            },
            "SECONDS": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "Seconds"
               }
            },
            "MICROSECONDS": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "Microseconds"
               }
            },
            "MILLISECONDS": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "Milliseconds"
               }
            },
            "BYTES": {
               "target": "smithy.api#Unit",
                "traits": {
                  "smithy.api#enumValue": "Bytes"
               }
            },
            "KILOBYTES": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "Kilobytes"
               }
            },
            "MEGABYTES": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "Megabytes"
               }
```

```
        },
        "GIGABYTES": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Gigabytes"
          }
        },
        "TERABYTES": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Terabytes"
          }
        },
        "BITS":
{
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Bits"
          }
        },
        "KILOBITS": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Kilobits"
          }
        },
        "MEGABITS": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Megabits"
          }
        },
        "GIGABITS": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Gigabits"
          }
        },
        "TERABITS": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Terabits"

    }
        },
        "PERCENT": {
          "target": "smithy.api#Unit",
          "traits": {
```

```
        "smithy.api#enumValue": "Percent"
      }
    },
    "BYTES_PER_SECOND": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "Bytes/Second"
      }
    },
    "KILOBYTES_PER_SECOND": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "Kilobytes/Second"
      }
    },
    "MEGABYTES_PER_SECOND": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "Megabytes/Second"
      }
    },
    "GIGABYTES_PER_SECOND": {
      "target": "smithy.api#Unit",
       "traits": {
        "smithy.api#enumValue": "Gigabytes/Second"
      }
    },
    "TERABYTES_PER_SECOND": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "Terabytes/Second"
      }
    },
    "BITS_PER_SECOND": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "Bits/Second"
      }
    },
    "KILOBITS_PER_SECOND": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "Kilobits/Second"
      }
    },
    "MEGABITS_PER_SECOND": {
      "target": "smithy.api#Unit",
      "traits": {
```

```
                "smithy.api#enumValue":
"Megabits/Second"
              }
            },
            "GIGABITS_PER_SECOND": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "Gigabits/Second"
              }
            },
            "TERABITS_PER_SECOND": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "Terabits/Second"
              }
            },
            "COUNT_PER_SECOND": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "Count/Second"
              }
            }
          }
        },
        "com.amazonaws.licensemanager#EntitlementList": {
          "type": "list",
          "member": {
            "target": "com.amazonaws.licensemanager#Entitlement"
          }
        },
        "com.amazonaws.licensemanager#EntitlementNotAllowedException":
{
          "type": "structure",
          "members": {
            "Message": {
              "target": "com.amazonaws.licensemanager#Message"
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>The entitlement is not allowed.</p>",
            "smithy.api#error": "client",
            "smithy.api#httpError": 400
          }
        },
        "com.amazonaws.licensemanager#EntitlementUnit": {
          "type": "enum",
          "members": {
            "COUNT": {
```

```
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Count"
            }
        },
        "NONE": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "None"
            }
        },
        "SECONDS":
{
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Seconds"
            }
        },
        "MICROSECONDS": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Microseconds"
            }
        },
        "MILLISECONDS": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Milliseconds"
            }
        },
        "BYTES": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Bytes"
            }
        },
        "KILOBYTES": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Kilobytes"
             }
        },
        "MEGABYTES": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Megabytes"
            }
        },
```

```
"GIGABYTES": {
   "target": "smithy.api#Unit",
   "traits": {
      "smithy.api#enumValue": "Gigabytes"
   }
},
"TERABYTES": {
   "target": "smithy.api#Unit",
   "traits": {
      "smithy.api#enumValue": "Terabytes"
   }
},
"BITS": {
   "target": "smithy.api#Unit",
   "traits": {
      "smithy.api#enumValue": "Bits"
   }
},
"KILOBITS": {
   "target": "smithy.api#Unit",
   "traits": {

    "smithy.api#enumValue": "Kilobits"
   }
},
"MEGABITS": {
   "target": "smithy.api#Unit",
   "traits": {
      "smithy.api#enumValue": "Megabits"
   }
},
"GIGABITS": {
   "target": "smithy.api#Unit",
   "traits": {
      "smithy.api#enumValue": "Gigabits"
   }
},
"TERABITS": {
   "target": "smithy.api#Unit",
   "traits": {
      "smithy.api#enumValue": "Terabits"
   }
},
"PERCENT": {
   "target": "smithy.api#Unit",
   "traits": {
      "smithy.api#enumValue": "Percent"
   }
```

```
        },
        "BYTES_PER_SECOND": {
          "target":
"smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Bytes/Second"
          }
        },
        "KILOBYTES_PER_SECOND": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Kilobytes/Second"
          }
        },
        "MEGABYTES_PER_SECOND": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Megabytes/Second"
          }
        },
        "GIGABYTES_PER_SECOND": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Gigabytes/Second"
          }
        },
        "TERABYTES_PER_SECOND": {
          "target": "smithy.api#Unit",
          "traits": {

"smithy.api#enumValue": "Terabytes/Second"
          }
        },
        "BITS_PER_SECOND": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Bits/Second"
          }
        },
        "KILOBITS_PER_SECOND": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Kilobits/Second"
          }
        },
        "MEGABITS_PER_SECOND": {
          "target": "smithy.api#Unit",
          "traits": {
```

```
            "smithy.api#enumValue": "Megabits/Second"
          }
        },
        "GIGABITS_PER_SECOND": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Gigabits/Second"
          }
        },

    "TERABITS_PER_SECOND": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Terabits/Second"
          }
        },
        "COUNT_PER_SECOND": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Count/Second"
          }
        }
      }
    },
    "com.amazonaws.licensemanager#EntitlementUsage": {
      "type": "structure",
      "members": {
        "Name": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Entitlement usage name.</p>",
            "smithy.api#required": {}
          }
        },
        "ConsumedValue": {
          "target": "com.amazonaws.licensemanager#String",

        "traits": {
            "smithy.api#documentation": "<p>Resource usage consumed.</p>",
            "smithy.api#required": {}
          }
        },
        "MaxCount": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Maximum entitlement usage count.</p>"
          }
        },
```

```
            "Unit": {
                "target": "com.amazonaws.licensemanager#EntitlementDataUnit",
                "traits": {
                    "smithy.api#documentation": "<p>Entitlement usage unit.</p>",
                    "smithy.api#required": {}
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>Usage associated with an entitlement resource.</p>"
        }
    },
    "com.amazonaws.licensemanager#EntitlementUsageList":
{
        "type": "list",
        "member": {
            "target": "com.amazonaws.licensemanager#EntitlementUsage"
        }
    },
    "com.amazonaws.licensemanager#ExtendLicenseConsumption": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#ExtendLicenseConsumptionRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#ExtendLicenseConsumptionResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
             },
            {
                "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
```

```
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Extends the expiration date for license consumption.</p>"
          }
        },
        "com.amazonaws.licensemanager#ExtendLicenseConsumptionRequest": {
          "type": "structure",
          "members": {
            "LicenseConsumptionToken": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>License consumption token.</p>",
                "smithy.api#required": {}

     }
            },
            "DryRun": {
              "target": "com.amazonaws.licensemanager#Boolean",
              "traits": {
                "smithy.api#default": false,
                "smithy.api#documentation": "<p>Checks whether you have the required permissions for the action,
without actually making the request. Provides an error response if you do not have the required permissions.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#input": {}
          }
        },
        "com.amazonaws.licensemanager#ExtendLicenseConsumptionResponse": {
          "type": "structure",
          "members": {
            "LicenseConsumptionToken": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>License consumption token.</p>"
              }
            },

            "Expiration": {
              "target": "com.amazonaws.licensemanager#ISO8601DateTime",
              "traits": {
                "smithy.api#documentation": "<p>Date and time at which the license consumption expires.</p>"
              }
            }
          },
          "traits": {
```

```
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#FailedDependencyException": {
        "type": "structure",
        "members": {
            "Message": {
                "target": "com.amazonaws.licensemanager#Message"
            },
            "ErrorCode": {
                "target": "com.amazonaws.licensemanager#String"
            }
        },
        "traits": {
            "aws.protocols#awsQueryError": {
                "code": "FailedDependency",
                "httpResponseCode": 424
            },
            "smithy.api#documentation":
 "<p>A dependency required to run the API is missing.</p>",
            "smithy.api#error": "client",
            "smithy.api#httpError": 424
        }
    },
    "com.amazonaws.licensemanager#Filter": {
        "type": "structure",
        "members": {
            "Name": {
                "target": "com.amazonaws.licensemanager#FilterName",
                "traits": {
                    "smithy.api#documentation": "<p>Name of the filter. Filter names are case-sensitive.</p>"
                }
            },
            "Values": {
                "target": "com.amazonaws.licensemanager#FilterValues",
                "traits": {
                    "smithy.api#documentation": "<p>The value of the filter, which is case-sensitive. You can only
specify one value for the filter.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>A filter
 name and value pair that is used to return more specific results from a\n          describe operation. Filters can be used
to match a set of resources by specific criteria,\n          such as tags, attributes, or IDs.</p>"
        }
    },
    "com.amazonaws.licensemanager#FilterLimitExceededException": {
```

```
    "type": "structure",
    "members": {
        "Message": {
            "target": "com.amazonaws.licensemanager#Message"
        }
    },
    "traits": {
        "aws.protocols#awsQueryError": {
            "code": "FilterLimitExceeded",
            "httpResponseCode": 400
        },
        "smithy.api#documentation": "<p>The request uses too many filters or too many filter values.</p>",
        "smithy.api#error": "client",
        "smithy.api#httpError": 400
    }
},
"com.amazonaws.licensemanager#FilterList": {
    "type": "list",
     "member": {
        "target": "com.amazonaws.licensemanager#Filter"
    }
},
"com.amazonaws.licensemanager#FilterName": {
    "type": "string"
},
"com.amazonaws.licensemanager#FilterValue": {
    "type": "string"
},
"com.amazonaws.licensemanager#FilterValues": {
    "type": "list",
    "member": {
        "target": "com.amazonaws.licensemanager#FilterValue",
        "traits": {
            "smithy.api#xmlName": "item"
        }
    }
},
"com.amazonaws.licensemanager#Filters": {
    "type": "list",
    "member": {
        "target": "com.amazonaws.licensemanager#Filter",
        "traits": {
            "smithy.api#xmlName": "item"
        }
    }
},
"com.amazonaws.licensemanager#GetAccessToken": {
    "type": "operation",
```

```
        "input": {
            "target": "com.amazonaws.licensemanager#GetAccessTokenRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#GetAccessTokenResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Gets a temporary access token to use with
AssumeRoleWithWebIdentity. Access
 tokens\n         are valid for one hour.</p>"
        }
    },
    "com.amazonaws.licensemanager#GetAccessTokenRequest": {
        "type": "structure",
        "members": {
            "Token": {
                "target": "com.amazonaws.licensemanager#TokenString",
                "traits": {
                    "smithy.api#documentation": "<p>Refresh token, encoded as a JWT token.</p>",
                    "smithy.api#required": {}
                }
            },
            "TokenProperties": {
                "target": "com.amazonaws.licensemanager#MaxSize3StringList",
                "traits": {
                    "smithy.api#documentation": "<p>Token properties to validate against those present in the JWT
token.</p>"
                }
            }
        },
        "traits": {
```

```
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#GetAccessTokenResponse":
{
        "type": "structure",
        "members": {
            "AccessToken": {
                "target": "com.amazonaws.licensemanager#TokenString",
                "traits": {
                    "smithy.api#documentation": "<p>Temporary access token.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#GetGrant": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#GetGrantRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#GetGrantResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"

      },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
```

```
        }
    ],
    "traits": {
        "smithy.api#documentation": "<p>Gets detailed information about the specified grant.</p>"
    }
},
"com.amazonaws.licensemanager#GetGrantRequest": {
    "type": "structure",
    "members": {
        "GrantArn": {
            "target": "com.amazonaws.licensemanager#Arn",
             "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the grant.</p>",
                "smithy.api#required": {}
            }
        },
        "Version": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Grant version.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#input": {}
    }
},
"com.amazonaws.licensemanager#GetGrantResponse": {
    "type": "structure",
    "members": {
        "Grant": {
            "target": "com.amazonaws.licensemanager#Grant",
            "traits": {
                "smithy.api#documentation": "<p>Grant details.</p>"
            }
        }
    },
    "traits": {

"smithy.api#output": {}
    }
},
"com.amazonaws.licensemanager#GetLicense": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanager#GetLicenseRequest"
    },
    "output": {
```

```
        "target": "com.amazonaws.licensemanager#GetLicenseResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"

    },
        {
          "target": "com.amazonaws.licensemanager#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Gets detailed information about the specified license.</p>"
      }
    },
    "com.amazonaws.licensemanager#GetLicenseConfiguration": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#GetLicenseConfigurationRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#GetLicenseConfigurationResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
         },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
```

```
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Gets detailed information about the specified license
configuration.</p>"
        }
    },
    "com.amazonaws.licensemanager#GetLicenseConfigurationRequest": {
        "type": "structure",
        "members": {
            "LicenseConfigurationArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license
configuration.</p>",
                    "smithy.api#required": {}
                }
            }
        },
        "traits":
{
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#GetLicenseConfigurationResponse": {
        "type": "structure",
        "members": {
            "LicenseConfigurationId": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Unique ID for the license configuration.</p>"
                }
            },
            "LicenseConfigurationArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license configuration.</p>"
                }
            },
            "Name": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Name of the license configuration.</p>"
                 }
            },
            "Description": {
```

```
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Description of the license configuration.</p>"
            }
        },
        "LicenseCountingType": {
            "target": "com.amazonaws.licensemanager#LicenseCountingType",
            "traits": {
                "smithy.api#documentation": "<p>Dimension for which the licenses are counted.</p>"
            }
        },
        "LicenseRules": {
            "target": "com.amazonaws.licensemanager#StringList",
            "traits": {
                "smithy.api#documentation": "<p>License rules.</p>"
            }
        },
        "LicenseCount": {
            "target": "com.amazonaws.licensemanager#BoxLong",

           "traits": {
                "smithy.api#documentation": "<p>Number of available licenses.</p>"
            }
        },
        "LicenseCountHardLimit": {
            "target": "com.amazonaws.licensemanager#BoxBoolean",
            "traits": {
                "smithy.api#documentation": "<p>Sets the number of available licenses as a hard limit.</p>"
            }
        },
        "ConsumedLicenses": {
            "target": "com.amazonaws.licensemanager#BoxLong",
            "traits": {
                "smithy.api#documentation": "<p>Number of licenses assigned to resources.</p>"
            }
        },
        "Status": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>License configuration status.</p>"
            }

    },
        "OwnerAccountId": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Account ID of the owner of the license configuration.</p>"
            }
```

```
            },
            "ConsumedLicenseSummaryList": {
              "target": "com.amazonaws.licensemanager#ConsumedLicenseSummaryList",
              "traits": {
                "smithy.api#documentation": "<p>Summaries of the licenses consumed by resources.</p>"
              }
            },
            "ManagedResourceSummaryList": {
              "target": "com.amazonaws.licensemanager#ManagedResourceSummaryList",
              "traits": {
                "smithy.api#documentation": "<p>Summaries of the managed resources.</p>"
              }
            },
            "Tags": {
              "target": "com.amazonaws.licensemanager#TagList",
               "traits": {
                "smithy.api#documentation": "<p>Tags for the license configuration.</p>"
              }
            },
            "ProductInformationList": {
              "target": "com.amazonaws.licensemanager#ProductInformationList",
              "traits": {
                "smithy.api#documentation": "<p>Product information.</p>"
              }
            },
            "AutomatedDiscoveryInformation": {
              "target": "com.amazonaws.licensemanager#AutomatedDiscoveryInformation",
              "traits": {
                "smithy.api#documentation": "<p>Automated discovery information.</p>"
              }
            },
            "DisassociateWhenNotFound": {
              "target": "com.amazonaws.licensemanager#BoxBoolean",
              "traits": {
                "smithy.api#documentation": "<p>When
true, disassociates a resource when software is uninstalled.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#output": {}
          }
        },
        "com.amazonaws.licensemanager#GetLicenseConversionTask": {
          "type": "operation",
          "input": {
            "target": "com.amazonaws.licensemanager#GetLicenseConversionTaskRequest"
          },
```

```
        "output": {
          "target": "com.amazonaws.licensemanager#GetLicenseConversionTaskResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {

 "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Gets information about the specified license type conversion task.</p>"
        }
      },
      "com.amazonaws.licensemanager#GetLicenseConversionTaskRequest": {
        "type": "structure",
        "members": {
          "LicenseConversionTaskId": {
            "target": "com.amazonaws.licensemanager#LicenseConversionTaskId",
            "traits": {
              "smithy.api#documentation": "<p>ID of the license type conversion task to retrieve information
on.</p>",
              "smithy.api#required": {}
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#GetLicenseConversionTaskResponse": {
        "type": "structure",
        "members": {
          "LicenseConversionTaskId": {
            "target": "com.amazonaws.licensemanager#LicenseConversionTaskId",
            "traits": {
              "smithy.api#documentation": "<p>ID of the license type conversion task.</p>"
```

```
            }
        },
        "ResourceArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Names (ARN) of the resources the license
conversion task is associated with.</p>"
            }
        },
        "SourceLicenseContext": {
            "target": "com.amazonaws.licensemanager#LicenseConversionContext",
            "traits": {
                "smithy.api#documentation": "<p>Information
 about the license type converted from.</p>"
            }
        },
        "DestinationLicenseContext": {
            "target": "com.amazonaws.licensemanager#LicenseConversionContext",
            "traits": {
                "smithy.api#documentation": "<p>Information about the license type converted to.</p>"
            }
        },
        "StatusMessage": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>The status message for the conversion task.</p>"
            }
        },
        "Status": {
            "target": "com.amazonaws.licensemanager#LicenseConversionTaskStatus",
            "traits": {
                "smithy.api#documentation": "<p>Status of the license type conversion task.</p>"
            }
        },

  "StartTime": {
            "target": "com.amazonaws.licensemanager#DateTime",
            "traits": {
                "smithy.api#documentation": "<p>Time at which the license type conversion task was started .</p>"
            }
        },
        "LicenseConversionTime": {
            "target": "com.amazonaws.licensemanager#DateTime",
            "traits": {
                "smithy.api#documentation": "<p>Amount of time to complete the license type conversion.</p>"
            }
        },
        "EndTime": {
```

```
                "target": "com.amazonaws.licensemanager#DateTime",
                "traits": {
                    "smithy.api#documentation": "<p>Time at which the license type conversion task was
completed.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#GetLicenseManagerReportGenerator":
{
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#GetLicenseManagerReportGeneratorRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#GetLicenseManagerReportGeneratorResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"

        },
            {
                "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
```

```
            "smithy.api#documentation": "<p>Gets information about the specified report generator.</p>"
          }
        },
        "com.amazonaws.licensemanager#GetLicenseManagerReportGeneratorRequest": {
          "type": "structure",
          "members": {
            "LicenseManagerReportGeneratorArn": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the report generator.</p>",
                "smithy.api#required":
{}
              }
            }
          },
          "traits": {
            "smithy.api#input": {}
          }
        },
        "com.amazonaws.licensemanager#GetLicenseManagerReportGeneratorResponse": {
          "type": "structure",
          "members": {
            "ReportGenerator": {
              "target": "com.amazonaws.licensemanager#ReportGenerator",
              "traits": {
                "smithy.api#documentation": "<p>A report generator that creates periodic reports about your license
configurations.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#output": {}
          }
        },
        "com.amazonaws.licensemanager#GetLicenseRequest": {
          "type": "structure",
          "members": {
            "LicenseArn": {
              "target": "com.amazonaws.licensemanager#Arn",
              "traits": {

 "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>",
                "smithy.api#required": {}
              }
            },
            "Version": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
```

```
            "smithy.api#documentation": "<p>License version.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#GetLicenseResponse": {
      "type": "structure",
      "members": {
        "License": {
          "target": "com.amazonaws.licensemanager#License",
          "traits": {
            "smithy.api#documentation": "<p>License details.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#output": {}
      }
    },

  "com.amazonaws.licensemanager#GetLicenseUsage": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#GetLicenseUsageRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#GetLicenseUsageResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
```

```
  "target": "com.amazonaws.licensemanager#ValidationException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Gets detailed information about the usage of the specified license.</p>"
          }
        },
        "com.amazonaws.licensemanager#GetLicenseUsageRequest": {
          "type": "structure",
          "members": {
            "LicenseArn": {
              "target": "com.amazonaws.licensemanager#Arn",
              "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>",
                "smithy.api#required": {}
              }
            }
          },
          "traits": {
            "smithy.api#input": {}
          }
        },
        "com.amazonaws.licensemanager#GetLicenseUsageResponse": {
          "type": "structure",
          "members": {
            "LicenseUsage": {
              "target":
"com.amazonaws.licensemanager#LicenseUsage",
              "traits": {
                "smithy.api#documentation": "<p>License usage details.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#output": {}
          }
        },
        "com.amazonaws.licensemanager#GetServiceSettings": {
          "type": "operation",
          "input": {
            "target": "com.amazonaws.licensemanager#GetServiceSettingsRequest"
          },
          "output": {
            "target": "com.amazonaws.licensemanager#GetServiceSettingsResponse"
          },
          "errors": [
            {
```

```
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Gets the License Manager settings for the current Region.</p>"
        }
    },
    "com.amazonaws.licensemanager#GetServiceSettingsRequest": {
        "type": "structure",
        "members": {},
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#GetServiceSettingsResponse": {
        "type": "structure",
        "members": {
            "S3BucketArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Regional S3 bucket path for storing reports, license trail event data,
discovery data,\n         and so on.</p>"

 }
            },
            "SnsTopicArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>SNS topic configured to receive notifications from License
Manager.</p>"
                }
            },
            "OrganizationConfiguration": {
                "target": "com.amazonaws.licensemanager#OrganizationConfiguration",
                "traits": {
                    "smithy.api#documentation": "<p>Indicates whether Organizations is integrated with License
Manager for\n         cross-account discovery.</p>"
                }
            },
```

```
            "EnableCrossAccountsDiscovery": {
               "target": "com.amazonaws.licensemanager#BoxBoolean",
               "traits": {
                  "smithy.api#documentation": "<p>Indicates whether cross-account discovery is enabled.</p>"
               }

         },
            "LicenseManagerResourceShareArn": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the resource share. The License
Manager management account \n         provides member accounts with access to this share.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#output": {}
         }
      },
      "com.amazonaws.licensemanager#Grant": {
         "type": "structure",
         "members": {
            "GrantArn": {
               "target": "com.amazonaws.licensemanager#Arn",
               "traits": {
                  "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the grant.</p>",
                  "smithy.api#required": {}
               }
            },
            "GrantName": {

  "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Grant name.</p>",
                  "smithy.api#required": {}
               }
            },
            "ParentArn": {
               "target": "com.amazonaws.licensemanager#Arn",
               "traits": {
                  "smithy.api#documentation": "<p>Parent ARN.</p>",
                  "smithy.api#required": {}
               }
            },
            "LicenseArn": {
               "target": "com.amazonaws.licensemanager#Arn",
               "traits": {
                  "smithy.api#documentation": "<p>License ARN.</p>",
```

```
            "smithy.api#required": {}
          }
        },
        "GranteePrincipalArn": {
          "target": "com.amazonaws.licensemanager#Arn",
          "traits": {

"smithy.api#documentation": "<p>The grantee principal ARN.</p>",
            "smithy.api#required": {}
          }
        },
        "HomeRegion": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Home Region of the grant.</p>",
            "smithy.api#required": {}
          }
        },
        "GrantStatus": {
          "target": "com.amazonaws.licensemanager#GrantStatus",
          "traits": {
            "smithy.api#documentation": "<p>Grant status.</p>",
            "smithy.api#required": {}
          }
        },
        "StatusReason": {
          "target": "com.amazonaws.licensemanager#StatusReasonMessage",
          "traits": {
            "smithy.api#documentation": "<p>Grant status reason.</p>"
           }
        },
        "Version": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Grant version.</p>",
            "smithy.api#required": {}
          }
        },
        "GrantedOperations": {
          "target": "com.amazonaws.licensemanager#AllowedOperationList",
          "traits": {
            "smithy.api#documentation": "<p>Granted operations.</p>",
            "smithy.api#required": {}
          }
        },
        "Options": {
          "target": "com.amazonaws.licensemanager#Options",
          "traits": {
```

```
                "smithy.api#documentation": "<p>The options specified for the grant.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#documentation":
"<p>Describes a grant.</p>"
          }
        },
        "com.amazonaws.licensemanager#GrantList": {
          "type": "list",
          "member": {
            "target": "com.amazonaws.licensemanager#Grant"
          }
        },
        "com.amazonaws.licensemanager#GrantStatus": {
          "type": "enum",
          "members": {
            "PENDING_WORKFLOW": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "PENDING_WORKFLOW"
              }
            },
            "PENDING_ACCEPT": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "PENDING_ACCEPT"
              }
            },
            "REJECTED": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "REJECTED"

              }
            },
            "ACTIVE": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "ACTIVE"
              }
            },
            "FAILED_WORKFLOW": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "FAILED_WORKFLOW"
              }
```

```
            },
            "DELETED": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "DELETED"
               }
            },
            "PENDING_DELETE": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "PENDING_DELETE"
               }
            },
            "DISABLED": {
               "target": "smithy.api#Unit",
               "traits":
{
                  "smithy.api#enumValue": "DISABLED"
               }
            },
            "WORKFLOW_COMPLETED": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "WORKFLOW_COMPLETED"
               }
            }
         }
      },
      "com.amazonaws.licensemanager#GrantedLicense": {
         "type": "structure",
         "members": {
            "LicenseArn": {
               "target": "com.amazonaws.licensemanager#Arn",
               "traits": {
                  "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>"
               }
            },
            "LicenseName": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>License name.</p>"
               }

 },
            "ProductName": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Product name.</p>"
```

```
        }
      },
      "ProductSKU": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>Product SKU.</p>"
        }
      },
      "Issuer": {
        "target": "com.amazonaws.licensemanager#IssuerDetails",
        "traits": {
          "smithy.api#documentation": "<p>Granted license issuer.</p>"
        }
      },
      "HomeRegion": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>Home Region of the granted license.</p>"

       }
      },
      "Status": {
        "target": "com.amazonaws.licensemanager#LicenseStatus",
        "traits": {
          "smithy.api#documentation": "<p>Granted license status.</p>"
        }
      },
      "Validity": {
        "target": "com.amazonaws.licensemanager#DatetimeRange",
        "traits": {
          "smithy.api#documentation": "<p>Date and time range during which the granted license is valid, in
ISO8601-UTC format.</p>"
        }
      },
      "Beneficiary": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>Granted license beneficiary.</p>"
        }
      },
      "Entitlements": {
        "target": "com.amazonaws.licensemanager#EntitlementList",
         "traits": {
          "smithy.api#documentation": "<p>License entitlements.</p>"
        }
      },
      "ConsumptionConfiguration": {
        "target": "com.amazonaws.licensemanager#ConsumptionConfiguration",
```

```
            "traits": {
                "smithy.api#documentation": "<p>Configuration for consumption of the license.</p>"
            }
        },
        "LicenseMetadata": {
            "target": "com.amazonaws.licensemanager#MetadataList",
            "traits": {
                "smithy.api#documentation": "<p>Granted license metadata.</p>"
            }
        },
        "CreateTime": {
            "target": "com.amazonaws.licensemanager#ISO8601DateTime",
            "traits": {
                "smithy.api#documentation": "<p>Creation time of the granted license.</p>"

  }
        },
        "Version": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Version of the granted license.</p>"
            }
        },
        "ReceivedMetadata": {
            "target": "com.amazonaws.licensemanager#ReceivedMetadata",
            "traits": {
                "smithy.api#documentation": "<p>Granted license received metadata.</p>"
            }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>Describes a license that is granted to a grantee.</p>"
      }
    },
    "com.amazonaws.licensemanager#GrantedLicenseList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanager#GrantedLicense"
      }
    },
    "com.amazonaws.licensemanager#ISO8601DateTime":
{
      "type": "string",
      "traits": {
        "smithy.api#length": {
          "min": 0,
          "max": 50
        },
```

```
            "smithy.api#pattern": "^(-?(?:[1-9][0-9]*)?[0-9]{4})-(1[0-2]|0[1-9])-(3[0-1]|0[1-9]|[1-2][0-9])T(2[0-3]|[0-1][0-9]):([0-5][0-9]):([0-5][0-9])(\\.[0-9]+)?(Z|[+-](?:2[ 0-3]|[0-1][0-9]):[0-5][0-9])+$"
          }
        },
        "com.amazonaws.licensemanager#Integer": {
          "type": "integer"
        },
        "com.amazonaws.licensemanager#InvalidParameterValueException": {
          "type": "structure",
          "members": {
            "Message": {
              "target": "com.amazonaws.licensemanager#Message"
            }
          },
          "traits": {
            "aws.protocols#awsQueryError": {
              "code": "InvalidParameterValueProvided",
              "httpResponseCode": 400
            },
            "smithy.api#documentation":
 "<p>One or more parameter values are not valid.</p>",
            "smithy.api#error": "client",
            "smithy.api#httpError": 400
          }
        },
        "com.amazonaws.licensemanager#InvalidResourceStateException": {
          "type": "structure",
          "members": {
            "Message": {
              "target": "com.amazonaws.licensemanager#Message"
            }
          },
          "traits": {
            "aws.protocols#awsQueryError": {
              "code": "InvalidResourceState",
              "httpResponseCode": 400
            },
            "smithy.api#documentation": "<p>License Manager cannot allocate a license to a resource because of its state. </p>\n          <p>For example, you cannot allocate a license to an instance in the process of shutting\n down.</p>",
            "smithy.api#error": "client",
            "smithy.api#httpError": 400
          }
        },

       "com.amazonaws.licensemanager#InventoryFilter": {
          "type": "structure",
          "members": {
```

```
        "Name": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Name of the filter.</p>",
            "smithy.api#required": {}
          }
        },
        "Condition": {
          "target": "com.amazonaws.licensemanager#InventoryFilterCondition",
          "traits": {
            "smithy.api#documentation": "<p>Condition of the filter.</p>",
            "smithy.api#required": {}
          }
        },
        "Value": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Value of the filter.</p>"
          }
        }

},
    "traits": {
      "smithy.api#documentation": "<p>An inventory filter.</p>"
    }
  },
  "com.amazonaws.licensemanager#InventoryFilterCondition": {
    "type": "enum",
    "members": {
      "EQUALS": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "EQUALS"
        }
      },
      "NOT_EQUALS": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "NOT_EQUALS"
        }
      },
      "BEGINS_WITH": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "BEGINS_WITH"
        }
      },
      "CONTAINS": {
```

```
                "target": "smithy.api#Unit",
                "traits": {
                    "smithy.api#enumValue": "CONTAINS"
                }
            }
        }
    },
    "com.amazonaws.licensemanager#InventoryFilterList": {
        "type": "list",
        "member": {
            "target": "com.amazonaws.licensemanager#InventoryFilter"
        }
    },
    "com.amazonaws.licensemanager#Issuer": {
        "type": "structure",
        "members": {
            "Name": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Issuer name.</p>",
                    "smithy.api#required": {}
                }
            },
            "SignKey": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Asymmetric KMS key from Key Management Service. The KMS
key must have a key usage
 of sign and verify, \n         and support the RSASSA-PSS SHA-256 signing algorithm.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>Details about the issuer of a license.</p>"
        }
    },
    "com.amazonaws.licensemanager#IssuerDetails": {
        "type": "structure",
        "members": {
            "Name": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Issuer name.</p>"
                }
            },
            "SignKey": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
```

```
                "smithy.api#documentation": "<p>Asymmetric KMS key from Key Management Service. The KMS key must have a key usage of sign and verify, \n          and support the RSASSA-PSS SHA-256 signing algorithm.</p>"
              }
            },
            "KeyFingerprint": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Issuer key fingerprint.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>Details associated with the issuer of a license.</p>"
          }
        },
        "com.amazonaws.licensemanager#License": {
          "type": "structure",
          "members": {
            "LicenseArn": {
              "target": "com.amazonaws.licensemanager#Arn",
              "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>"
              }
            },
            "LicenseName": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {

             "smithy.api#documentation": "<p>License name.</p>"
              }
            },
            "ProductName": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Product name.</p>"
              }
            },
            "ProductSKU": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Product SKU.</p>"
              }
            },
            "Issuer": {
              "target": "com.amazonaws.licensemanager#IssuerDetails",
              "traits": {
                "smithy.api#documentation": "<p>License issuer.</p>"
```

```
            }
        },
        "HomeRegion": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {

        "smithy.api#documentation": "<p>Home Region of the license.</p>"
            }
        },
        "Status": {
            "target": "com.amazonaws.licensemanager#LicenseStatus",
            "traits": {
                "smithy.api#documentation": "<p>License status.</p>"
            }
        },
        "Validity": {
            "target": "com.amazonaws.licensemanager#DatetimeRange",
            "traits": {
                "smithy.api#documentation": "<p>Date and time range during which the license is valid, in ISO8601-
UTC format.</p>"
            }
        },
        "Beneficiary": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>License beneficiary.</p>"
            }
        },
        "Entitlements": {

   "target": "com.amazonaws.licensemanager#EntitlementList",
            "traits": {
                "smithy.api#documentation": "<p>License entitlements.</p>"
            }
        },
        "ConsumptionConfiguration": {
            "target": "com.amazonaws.licensemanager#ConsumptionConfiguration",
            "traits": {
                "smithy.api#documentation": "<p>Configuration for consumption of the license.</p>"
            }
        },
        "LicenseMetadata": {
            "target": "com.amazonaws.licensemanager#MetadataList",
            "traits": {
                "smithy.api#documentation": "<p>License metadata.</p>"
            }
        },
        "CreateTime": {
```

```
            "target": "com.amazonaws.licensemanager#ISO8601DateTime",
            "traits": {
              "smithy.api#documentation": "<p>License
creation time.</p>"
            }
          },
          "Version": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>License version.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Software license that is managed in License Manager.</p>"
        }
      },
      "com.amazonaws.licensemanager#LicenseConfiguration": {
        "type": "structure",
        "members": {
          "LicenseConfigurationId": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Unique ID of the license configuration.</p>"
            }
          },
          "LicenseConfigurationArn": {
            "target": "com.amazonaws.licensemanager#String",
             "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license configuration.</p>"
            }
          },
          "Name": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Name of the license configuration.</p>"
            }
          },
          "Description": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Description of the license configuration.</p>"
            }
          },
          "LicenseCountingType": {
            "target": "com.amazonaws.licensemanager#LicenseCountingType",
            "traits": {
              "smithy.api#documentation": "<p>Dimension to use to track the license inventory.</p>"
```

```
            }
        },
        "LicenseRules": {
            "target": "com.amazonaws.licensemanager#StringList",
            "traits": {
                "smithy.api#documentation": "<p>License rules.</p>"
            }
        },
        "LicenseCount": {
            "target": "com.amazonaws.licensemanager#BoxLong",
            "traits": {
                "smithy.api#documentation": "<p>Number of licenses managed by the license configuration.</p>"
            }
        },
        "LicenseCountHardLimit": {
            "target": "com.amazonaws.licensemanager#BoxBoolean",
            "traits": {
                "smithy.api#documentation": "<p>Number of available licenses as a hard limit.</p>"
            }
        },
        "DisassociateWhenNotFound": {
            "target": "com.amazonaws.licensemanager#BoxBoolean",
             "traits": {
                "smithy.api#documentation": "<p>When true, disassociates a resource when software is
uninstalled.</p>"
            }
        },
        "ConsumedLicenses": {
            "target": "com.amazonaws.licensemanager#BoxLong",
            "traits": {
                "smithy.api#documentation": "<p>Number of licenses consumed. </p>"
            }
        },
        "Status": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Status of the license configuration.</p>"
            }
        },
        "OwnerAccountId": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Account ID of the license configuration's owner.</p>"

        }
        },
        "ConsumedLicenseSummaryList": {
            "target": "com.amazonaws.licensemanager#ConsumedLicenseSummaryList",
```

```
            "traits": {
                "smithy.api#documentation": "<p>Summaries for licenses consumed by various resources.</p>"
            }
        },
        "ManagedResourceSummaryList": {
            "target": "com.amazonaws.licensemanager#ManagedResourceSummaryList",
            "traits": {
                "smithy.api#documentation": "<p>Summaries for managed resources.</p>"
            }
        },
        "ProductInformationList": {
            "target": "com.amazonaws.licensemanager#ProductInformationList",
            "traits": {
                "smithy.api#documentation": "<p>Product information.</p>"
            }
        },
        "AutomatedDiscoveryInformation": {

            "target": "com.amazonaws.licensemanager#AutomatedDiscoveryInformation",
            "traits": {
                "smithy.api#documentation": "<p>Automated discovery information.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#documentation": "<p>A license configuration is an abstraction of a customer license agreement that can be\n consumed and enforced by License Manager. Components include specifications for the license\n type (licensing by instance, socket, CPU, or vCPU), allowed tenancy (shared tenancy, \n Dedicated Instance, Dedicated Host, or all of these), host affinity (how long a VM\n must be associated with a host), and the number of licenses purchased and used.</p>"
    }
},
"com.amazonaws.licensemanager#LicenseConfigurationAssociation": {
    "type": "structure",
    "members": {
        "ResourceArn":
{
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the resource.</p>"
            }
        },
        "ResourceType": {
            "target": "com.amazonaws.licensemanager#ResourceType",
            "traits": {
                "smithy.api#documentation": "<p>Type of server resource.</p>"
            }
        },
```

```
            "ResourceOwnerId": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>ID of the Amazon Web Services account that owns the resource
consuming licenses.</p>"
               }
            },
            "AssociationTime": {
               "target": "com.amazonaws.licensemanager#DateTime",
               "traits": {

     "smithy.api#documentation": "<p>Time when the license configuration was associated with the resource.</p>"
               }
            },
            "AmiAssociationScope": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Scope of AMI associations. The possible value is <code>cross-
account</code>.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#documentation": "<p>Describes an association with a license configuration.</p>"
         }
      },
      "com.amazonaws.licensemanager#LicenseConfigurationAssociations": {
         "type": "list",
         "member": {
            "target": "com.amazonaws.licensemanager#LicenseConfigurationAssociation"
         }
      },
      "com.amazonaws.licensemanager#LicenseConfigurationStatus": {
         "type": "enum",
         "members":
 {
            "AVAILABLE": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "AVAILABLE"
               }
            },
            "DISABLED": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "DISABLED"
               }
            }
```

```
        }
      },
      "com.amazonaws.licensemanager#LicenseConfigurationUsage": {
        "type": "structure",
        "members": {
          "ResourceArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the resource.</p>"
            }
          },
          "ResourceType": {
            "target": "com.amazonaws.licensemanager#ResourceType",
            "traits":
{
              "smithy.api#documentation": "<p>Type of resource.</p>"
            }
          },
          "ResourceStatus": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Status of the resource.</p>"
            }
          },
          "ResourceOwnerId": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>ID of the account that owns the resource.</p>"
            }
          },
          "AssociationTime": {
            "target": "com.amazonaws.licensemanager#DateTime",
            "traits": {
              "smithy.api#documentation": "<p>Time when the license configuration was initially associated with
the resource.</p>"
            }
          },

      "ConsumedLicenses": {
            "target": "com.amazonaws.licensemanager#BoxLong",
            "traits": {
              "smithy.api#documentation": "<p>Number of licenses consumed by the resource.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Details about the usage of a resource associated with a license
configuration.</p>"
```

```
        }
      },
      "com.amazonaws.licensemanager#LicenseConfigurationUsageList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#LicenseConfigurationUsage"
        }
      },
      "com.amazonaws.licensemanager#LicenseConfigurations": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#LicenseConfiguration"
        }
      },
      "com.amazonaws.licensemanager#LicenseConversionContext": {

    "type": "structure",
        "members": {
          "UsageOperation": {
            "target": "com.amazonaws.licensemanager#UsageOperation",
            "traits": {
              "smithy.api#documentation": "<p>The Usage operation value that corresponds to the license type you
are converting your resource from.  For more information about which platforms correspond to which usage
operation values see <a href=\"https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/billing-info-
fields.html#billing-info\">Sample data: usage operation by platform\n      </a>\n        </p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Information about a license type conversion task.</p>"
        }
      },
      "com.amazonaws.licensemanager#LicenseConversionTask": {
        "type": "structure",
        "members": {
          "LicenseConversionTaskId": {

       "target": "com.amazonaws.licensemanager#LicenseConversionTaskId",
            "traits": {
              "smithy.api#documentation": "<p>The ID of the license type conversion task.</p>"
            }
          },
          "ResourceArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the resource associated
with the license type\n        conversion task.</p>"
            }
```

```
        },
        "SourceLicenseContext": {
          "target": "com.amazonaws.licensemanager#LicenseConversionContext",
          "traits": {
            "smithy.api#documentation": "<p>Information about the license type this conversion task converted
from.</p>"
          }
        },
        "DestinationLicenseContext": {
          "target":
 "com.amazonaws.licensemanager#LicenseConversionContext",
          "traits": {
            "smithy.api#documentation": "<p>Information about the license type this conversion task converted
to.</p>"
          }
        },
        "Status": {
          "target": "com.amazonaws.licensemanager#LicenseConversionTaskStatus",
          "traits": {
            "smithy.api#documentation": "<p>The status of the conversion task.</p>"
          }
        },
        "StatusMessage": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>The status message for the conversion task.</p>"
          }
        },
        "StartTime": {
          "target": "com.amazonaws.licensemanager#DateTime",
          "traits": {
            "smithy.api#documentation":
 "<p>The time the conversion task was started at.</p>"
          }
        },
        "LicenseConversionTime": {
          "target": "com.amazonaws.licensemanager#DateTime",
          "traits": {
            "smithy.api#documentation": "<p>The time the usage operation value of the resource was
changed.</p>"
          }
        },
        "EndTime": {
          "target": "com.amazonaws.licensemanager#DateTime",
          "traits": {
            "smithy.api#documentation": "<p>The time the conversion task was completed.</p>"
          }
        }
```

```
        },
        "traits": {
            "smithy.api#documentation": "<p>Information about a license type conversion task.</p>"
        }
    },
    "com.amazonaws.licensemanager#LicenseConversionTaskId": {
        "type": "string",
        "traits": {

       "smithy.api#length": {
            "min": 0,
            "max": 50
        },
        "smithy.api#pattern": "^lct-[a-zA-Z0-9]*$"
        }
    },
    "com.amazonaws.licensemanager#LicenseConversionTaskStatus": {
        "type": "enum",
        "members": {
            "IN_PROGRESS": {
                "target": "smithy.api#Unit",
                "traits": {
                    "smithy.api#enumValue": "IN_PROGRESS"
                }
            },
            "SUCCEEDED": {
                "target": "smithy.api#Unit",
                "traits": {
                    "smithy.api#enumValue": "SUCCEEDED"
                }
            },
            "FAILED": {
                "target": "smithy.api#Unit",
                "traits": {
                    "smithy.api#enumValue": "FAILED"
                }
            }
        }
    },
    "com.amazonaws.licensemanager#LicenseConversionTasks":
{
        "type": "list",
        "member": {
            "target": "com.amazonaws.licensemanager#LicenseConversionTask"
        }
    },
    "com.amazonaws.licensemanager#LicenseCountingType": {
        "type": "enum",
```

```
    "members": {
      "VCPU": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "vCPU"
        }
      },
      "INSTANCE": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "Instance"
        }
      },
      "CORE": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "Core"
        }
      },
      "SOCKET": {
        "target": "smithy.api#Unit",
         "traits": {
          "smithy.api#enumValue": "Socket"
        }
      }
    }
  },
  "com.amazonaws.licensemanager#LicenseDeletionStatus": {
    "type": "enum",
    "members": {
      "PENDING_DELETE": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "PENDING_DELETE"
        }
      },
      "DELETED": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "DELETED"
        }
      }
    }
  },
  "com.amazonaws.licensemanager#LicenseList": {
    "type": "list",
    "member": {
      "target": "com.amazonaws.licensemanager#License"
```

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    }
  },
  "com.amazonaws.licensemanager#LicenseOperationFailure": {

    "type": "structure",
    "members": {
      "ResourceArn": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the resource.</p>"
        }
      },
      "ResourceType": {
        "target": "com.amazonaws.licensemanager#ResourceType",
        "traits": {
          "smithy.api#documentation": "<p>Resource type.</p>"
        }
      },
      "ErrorMessage": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>Error message.</p>"
        }
      },
      "FailureTime": {
        "target": "com.amazonaws.licensemanager#DateTime",
        "traits": {

  "smithy.api#documentation": "<p>Failure time.</p>"
        }
      },
      "OperationName": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>Name of the operation.</p>"
        }
      },
      "ResourceOwnerId": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>ID of the Amazon Web Services account that owns the
resource.</p>"
        }
      },
      "OperationRequestedBy": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>The requester is \"License Manager Automated Discovery\".</p>"
```

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            }
          },
          "MetadataList": {

            "target": "com.amazonaws.licensemanager#MetadataList",
            "traits": {
              "smithy.api#documentation": "<p>Reserved.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Describes the failure of a license operation.</p>"
        }
      },
      "com.amazonaws.licensemanager#LicenseOperationFailureList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#LicenseOperationFailure"
        }
      },
      "com.amazonaws.licensemanager#LicenseSpecification": {
        "type": "structure",
        "members": {
          "LicenseConfigurationArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license
configuration.</p>",

              "smithy.api#required": {}
            }
          },
          "AmiAssociationScope": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Scope of AMI associations. The possible value is <code>cross-
account</code>.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Details for associating a license configuration with a resource.</p>"
        }
      },
      "com.amazonaws.licensemanager#LicenseSpecifications": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#LicenseSpecification"
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    }
},
"com.amazonaws.licensemanager#LicenseStatus": {
    "type": "enum",
    "members": {
        "AVAILABLE": {
            "target": "smithy.api#Unit",

        "traits": {
                "smithy.api#enumValue": "AVAILABLE"
            }
        },
        "PENDING_AVAILABLE": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "PENDING_AVAILABLE"
            }
        },
        "DEACTIVATED": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "DEACTIVATED"
            }
        },
        "SUSPENDED": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "SUSPENDED"
            }
        },
        "EXPIRED": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "EXPIRED"
            }
        },

     "PENDING_DELETE": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "PENDING_DELETE"
            }
        },
        "DELETED": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "DELETED"
            }
```

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            }
          }
        },
        "com.amazonaws.licensemanager#LicenseUsage": {
          "type": "structure",
          "members": {
            "EntitlementUsages": {
              "target": "com.amazonaws.licensemanager#EntitlementUsageList",
              "traits": {
                "smithy.api#documentation": "<p>License entitlement usages.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>Describes the entitlement usage associated with a license.</p>"

          }
        },
        "com.amazonaws.licensemanager#LicenseUsageException": {
          "type": "structure",
          "members": {
            "Message": {
              "target": "com.amazonaws.licensemanager#Message"
            }
          },
          "traits": {
            "aws.protocols#awsQueryError": {
              "code": "LicenseUsageFailure",
              "httpResponseCode": 412
            },
            "smithy.api#documentation": "<p>You do not have enough licenses available to support a new resource
launch.</p>",
            "smithy.api#error": "client",
            "smithy.api#httpError": 412
          }
        },
        "com.amazonaws.licensemanager#ListAssociationsForLicenseConfiguration": {
          "type": "operation",
          "input": {
            "target": "com.amazonaws.licensemanager#ListAssociationsForLicenseConfigurationRequest"
          },
          "output": {

       "target": "com.amazonaws.licensemanager#ListAssociationsForLicenseConfigurationResponse"
          },
          "errors": [
            {
              "target": "com.amazonaws.licensemanager#AccessDeniedException"
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            },
            {
              "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
              "target": "com.amazonaws.licensemanager#FilterLimitExceededException"
            },
            {
              "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
              "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
              "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Lists the resource associations for the
 specified license configuration.</p>\n        <p>Resource associations need not consume licenses from a license
configuration. \n        For example, an AMI or a stopped instance might not consume a license (depending on \n
the license rules).</p>"
          }
        },
        "com.amazonaws.licensemanager#ListAssociationsForLicenseConfigurationRequest": {
          "type": "structure",
          "members": {
            "LicenseConfigurationArn": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of a license configuration.</p>",
                "smithy.api#required": {}
              }
            },
            "MaxResults": {
              "target": "com.amazonaws.licensemanager#BoxInteger",
              "traits": {
                "smithy.api#documentation": "<p>Maximum number of results
 to return in a single call.</p>"
              }
            },
            "NextToken": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
              }
            }
          },
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      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#ListAssociationsForLicenseConfigurationResponse": {
      "type": "structure",
      "members": {
        "LicenseConfigurationAssociations": {
          "target": "com.amazonaws.licensemanager#LicenseConfigurationAssociations",
          "traits": {
            "smithy.api#documentation": "<p>Information about the associations for the license
configuration.</p>"
          }
        },
        "NextToken": {

 "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Token for the next set of results.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanager#ListDistributedGrants": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#ListDistributedGrantsRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#ListDistributedGrantsResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
         },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
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            "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          },
          {
            "target": "com.amazonaws.licensemanager#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Lists the grants distributed for the specified license.</p>"
        }
      },
      "com.amazonaws.licensemanager#ListDistributedGrantsRequest": {
        "type": "structure",
        "members": {
          "GrantArns": {
            "target": "com.amazonaws.licensemanager#ArnList",
            "traits": {

          "smithy.api#documentation": "<p>Amazon Resource Names (ARNs) of the grants.</p>"
            }
          },
          "Filters": {
            "target": "com.amazonaws.licensemanager#FilterList",
            "traits": {
              "smithy.api#documentation": "<p>Filters to scope the results. The following filters are
supported:</p>\n        <ul>\n          <li>\n            <p>\n              <code>LicenseArn</code>\n            </p>\n
      </li>\n          <li>\n            <p>\n              <code>GrantStatus</code>\n            </p>\n          </li>\n
  <li>\n            <p>\n              <code>GranteePrincipalARN</code>\n            </p>\n          </li>\n
<li>\n            <p>\n              <code>ProductSKU</code>\n            </p>\n          </li>\n          <li>\n
<p>\n              <code>LicenseIssuerName</code>\n
        </p>\n          </li>\n        </ul>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanager#MaxSize100",
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          }
        },
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      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#ListDistributedGrantsResponse": {
      "type": "structure",
      "members": {
        "Grants": {
          "target": "com.amazonaws.licensemanager#GrantList",

    "traits": {
            "smithy.api#documentation": "<p>Distributed grant details.</p>"
          }
        },
        "NextToken": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Token for the next set of results.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanager#ListFailuresForLicenseConfigurationOperations": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#ListFailuresForLicenseConfigurationOperationsRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#ListFailuresForLicenseConfigurationOperationsResponse"
      },
      "errors": [
        {

  "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
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            "target": "com.amazonaws.licensemanager#ServerInternalException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Lists the license configuration operations that failed.</p>"
        }
      },
      "com.amazonaws.licensemanager#ListFailuresForLicenseConfigurationOperationsRequest": {
        "type": "structure",
        "members": {
          "LicenseConfigurationArn": {
            "target": "com.amazonaws.licensemanager#String",
             "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name of the license configuration.</p>",
              "smithy.api#required": {}
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanager#BoxInteger",
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#ListFailuresForLicenseConfigurationOperationsResponse":
{
        "type": "structure",
        "members": {
          "LicenseOperationFailureList": {
            "target": "com.amazonaws.licensemanager#LicenseOperationFailureList",
            "traits": {
              "smithy.api#documentation": "<p>License configuration operations that failed.</p>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
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            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#ListLicenseConfigurations": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#ListLicenseConfigurationsRequest"
        },

    "output": {
          "target": "com.amazonaws.licensemanager#ListLicenseConfigurationsResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#FilterLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Lists the license configurations
for your account.</p>"
        }
      },
      "com.amazonaws.licensemanager#ListLicenseConfigurationsRequest": {
        "type": "structure",
        "members": {
          "LicenseConfigurationArns": {
            "target": "com.amazonaws.licensemanager#StringList",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Names (ARN) of the license
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configurations.</p>"
                }
            },
            "MaxResults": {
                "target": "com.amazonaws.licensemanager#BoxInteger",
                "traits": {
                    "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
                }
            },
            "NextToken": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Token for the next
 set of results.</p>"
                }
            },
            "Filters": {
                "target": "com.amazonaws.licensemanager#Filters",
                "traits": {
                    "smithy.api#documentation": "<p>Filters to scope the results. The following filters and logical
operators\n        are supported:</p>\n        <ul>\n            <li>\n                <p>\n
<code>licenseCountingType</code> - The dimension for which licenses are counted.\n                Possible values are
<code>vCPU</code> | <code>Instance</code> | <code>Core</code> | <code>Socket</code>.\n                Logical
operators are <code>EQUALS</code> | <code>NOT_EQUALS</code>.</p>\n            </li>\n            <li>\n
<p>\n                <code>enforceLicenseCount</code> - A Boolean value that indicates whether hard license
enforcement is used. \n                Logical operators are <code>EQUALS</code> |
<code>NOT_EQUALS</code>.</p>\n
    </li>\n            <li>\n                <p>\n                <code>usagelimitExceeded</code> - A Boolean value that
indicates whether the available licenses have been exceeded. \n                Logical operators are
<code>EQUALS</code> | <code>NOT_EQUALS</code>.</p>\n            </li>\n        </ul>"
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#ListLicenseConfigurationsResponse": {
        "type": "structure",
        "members": {
            "LicenseConfigurations": {
                "target": "com.amazonaws.licensemanager#LicenseConfigurations",
                "traits": {
                    "smithy.api#documentation": "<p>Information about the license configurations.</p>"
                }
            },
            "NextToken": {
                "target": "com.amazonaws.licensemanager#String",
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      "traits": {
            "smithy.api#documentation": "<p>Token for the next set of results.</p>"
          }
        }
    },
    "traits": {
      "smithy.api#output": {}
    }
  },
  "com.amazonaws.licensemanager#ListLicenseConversionTasks": {
    "type": "operation",
    "input": {
      "target": "com.amazonaws.licensemanager#ListLicenseConversionTasksRequest"
    },
    "output": {
      "target": "com.amazonaws.licensemanager#ListLicenseConversionTasksResponse"
    },
    "errors": [
      {
        "target": "com.amazonaws.licensemanager#AccessDeniedException"
      },
      {
        "target": "com.amazonaws.licensemanager#AuthorizationException"
      },
      {
        "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
       },
      {
        "target": "com.amazonaws.licensemanager#RateLimitExceededException"
      },
      {
        "target": "com.amazonaws.licensemanager#ServerInternalException"
      }
    ],
    "traits": {
      "smithy.api#documentation": "<p>Lists the license type conversion tasks for your account.</p>"
    }
  },
  "com.amazonaws.licensemanager#ListLicenseConversionTasksRequest": {
    "type": "structure",
    "members": {
      "NextToken": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>Token for the next set of results.</p>"
        }
      },
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            "MaxResults": {
              "target": "com.amazonaws.licensemanager#BoxInteger",
              "traits": {

    "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
              }
            },
            "Filters": {
              "target": "com.amazonaws.licensemanager#Filters",
              "traits": {
                "smithy.api#documentation": "<p>\n         Filters to scope the results. Valid filters are
<code>ResourceArns</code> and <code>Status</code>.\n      </p>"
              }
            }
          },
          "traits": {
            "smithy.api#input": {}
          }
        },
        "com.amazonaws.licensemanager#ListLicenseConversionTasksResponse": {
          "type": "structure",
          "members": {
            "LicenseConversionTasks": {
              "target": "com.amazonaws.licensemanager#LicenseConversionTasks",
              "traits": {
                "smithy.api#documentation": "<p>Information about the license configuration tasks for your
 account.</p>"
              }
            },
            "NextToken": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#output": {}
          }
        },
        "com.amazonaws.licensemanager#ListLicenseManagerReportGenerators": {
          "type": "operation",
          "input": {
            "target": "com.amazonaws.licensemanager#ListLicenseManagerReportGeneratorsRequest"
          },
          "output": {
            "target": "com.amazonaws.licensemanager#ListLicenseManagerReportGeneratorsResponse"
          },
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        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target":
"com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          },
          {
            "target": "com.amazonaws.licensemanager#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Lists the report generators for your account.</p>"
        }
      },
      "com.amazonaws.licensemanager#ListLicenseManagerReportGeneratorsRequest":
{
        "type": "structure",
        "members": {
          "Filters": {
            "target": "com.amazonaws.licensemanager#FilterList",
            "traits": {
              "smithy.api#documentation": "<p>Filters to scope the results. The following filters are supported:
</p>\n      <ul>\n        <li>\n          <p>\n            <code>LicenseConfigurationArn</code>\n
</p>\n        </li>\n      </ul>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
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            },
            "MaxResults": {
               "target": "com.amazonaws.licensemanager#MaxSize100",
               "traits":
{
                  "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#input": {}
         }
      },
      "com.amazonaws.licensemanager#ListLicenseManagerReportGeneratorsResponse": {
         "type": "structure",
         "members": {
            "ReportGenerators": {
               "target": "com.amazonaws.licensemanager#ReportGeneratorList",
               "traits": {
                  "smithy.api#documentation": "<p>A report generator that creates periodic reports about your license
configurations.</p>"
               }
            },
            "NextToken": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Token for the next set of results.</p>"
               }

         }
         },
         "traits": {
            "smithy.api#output": {}
         }
      },
      "com.amazonaws.licensemanager#ListLicenseSpecificationsForResource": {
         "type": "operation",
         "input": {
            "target": "com.amazonaws.licensemanager#ListLicenseSpecificationsForResourceRequest"
         },
         "output": {
            "target": "com.amazonaws.licensemanager#ListLicenseSpecificationsForResourceResponse"
         },
         "errors": [
            {
               "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
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            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Describes the license configurations for the specified resource.</p>"
        }
      },
      "com.amazonaws.licensemanager#ListLicenseSpecificationsForResourceRequest": {
        "type": "structure",
        "members": {
          "ResourceArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of a resource that has an
associated license configuration.</p>",
              "smithy.api#required": {}
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanager#BoxInteger",
            "traits": {

        "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#ListLicenseSpecificationsForResourceResponse": {
        "type": "structure",
        "members": {
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        "LicenseSpecifications": {
            "target": "com.amazonaws.licensemanager#LicenseSpecifications",
            "traits": {
                "smithy.api#documentation": "<p>License configurations associated with a resource.</p>"
            }
        },
        "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#output": {}
    }
},
"com.amazonaws.licensemanager#ListLicenseVersions": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanager#ListLicenseVersionsRequest"
    },
    "output": {
        "target": "com.amazonaws.licensemanager#ListLicenseVersionsResponse"
    },
    "errors": [
        {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
        }
    ],
    "traits": {
        "smithy.api#documentation": "<p>Lists all versions of the specified license.</p>"
    }
},
"com.amazonaws.licensemanager#ListLicenseVersionsRequest": {
    "type": "structure",
```

```
      "members": {
        "LicenseArn": {
          "target": "com.amazonaws.licensemanager#Arn",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>",
            "smithy.api#required": {}
          }
        },
        "NextToken": {
          "target": "com.amazonaws.licensemanager#String",
           "traits": {
            "smithy.api#documentation": "<p>Token for the next set of results.</p>"
          }
        },
        "MaxResults": {
          "target": "com.amazonaws.licensemanager#MaxSize100",
          "traits": {
            "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#ListLicenseVersionsResponse": {
      "type": "structure",
      "members": {
        "Licenses": {
          "target": "com.amazonaws.licensemanager#LicenseList",
          "traits": {
            "smithy.api#documentation": "<p>License details.</p>"
          }
        },

"NextToken": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Token for the next set of results.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanager#ListLicenses": {
      "type": "operation",
```

```
      "input": {
        "target": "com.amazonaws.licensemanager#ListLicensesRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#ListLicensesResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
         },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
          "target": "com.amazonaws.licensemanager#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Lists the licenses for your account.</p>"
      }
    },
    "com.amazonaws.licensemanager#ListLicensesRequest": {
      "type": "structure",
      "members": {
        "LicenseArns": {
          "target": "com.amazonaws.licensemanager#ArnList",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Names (ARNs) of the licenses.</p>"
          }
        },

     "Filters": {
          "target": "com.amazonaws.licensemanager#FilterList",
          "traits": {
            "smithy.api#documentation": "<p>Filters to scope the results. The following filters are
supported:</p>\n      <ul>\n        <li>\n          <p>\n            <code>Beneficiary</code>\n          </p>\n
    </li>\n        <li>\n          <p>\n            <code>ProductSKU</code>\n          </p>\n        </li>\n
  <li>\n          <p>\n            <code>Fingerprint</code>\n          </p>\n        </li>\n        <li>\n
<p>\n            <code>Status</code>\n          </p>\n        </li>\n      </ul>"
```

```
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token
for the next set of results.</p>"
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanager#MaxSize100",
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#ListLicensesResponse": {
        "type": "structure",
        "members": {
          "Licenses": {
            "target": "com.amazonaws.licensemanager#LicenseList",
            "traits": {
              "smithy.api#documentation": "<p>License details.</p>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {

  "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#ListReceivedGrants": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#ListReceivedGrantsRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#ListReceivedGrantsResponse"
```

```
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
           },
          {
            "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          },
          {
            "target": "com.amazonaws.licensemanager#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Lists grants that are received. Received grants are grants created while
specifying the\n        recipient as this Amazon Web Services account, your organization, or an organizational unit\n
    (OU) to which this member account belongs.</p>"
        }
      },
      "com.amazonaws.licensemanager#ListReceivedGrantsForOrganization": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#ListReceivedGrantsForOrganizationRequest"
         },
        "output": {
          "target": "com.amazonaws.licensemanager#ListReceivedGrantsForOrganizationResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
```

```
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
                "target":
 "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists the grants received for all accounts in the organization.</p>"
        }
    },
    "com.amazonaws.licensemanager#ListReceivedGrantsForOrganizationRequest": {
        "type": "structure",
        "members": {
            "LicenseArn": {
                "target": "com.amazonaws.licensemanager#Arn",
                "traits": {
                    "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the received license.</p>",
                    "smithy.api#required": {}
                }
            },
            "Filters": {
                "target": "com.amazonaws.licensemanager#FilterList",
                "traits": {
                    "smithy.api#documentation": "<p>Filters to scope the results. The following filters are
supported:</p>\n
    <ul>\n        <li>\n            <p>\n                <code>ParentArn</code>\n            </p>\n        </li>\n
<li>\n            <p>\n                <code>GranteePrincipalArn</code>\n            </p>\n        </li>\n    </ul>"
                }
            },
            "NextToken": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Token for the next set of results.</p>"
                }
            },
            "MaxResults": {
                "target": "com.amazonaws.licensemanager#MaxSize100",
                "traits": {
                    "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
                }
```

```
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#ListReceivedGrantsForOrganizationResponse":
{
        "type": "structure",
        "members": {
            "Grants": {
                "target": "com.amazonaws.licensemanager#GrantList",
                "traits": {
                    "smithy.api#documentation": "<p>Lists the grants the organization has received.</p>"
                }
            },
            "NextToken": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Token for the next set of results.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#ListReceivedGrantsRequest": {
        "type": "structure",
        "members": {
            "GrantArns": {
                "target": "com.amazonaws.licensemanager#ArnList",
                 "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Names (ARNs) of the grants.</p>"
                }
            },
            "Filters": {
                "target": "com.amazonaws.licensemanager#FilterList",
                "traits": {
                    "smithy.api#documentation": "<p>Filters to scope the results. The following filters are
supported:</p>\n        <ul>\n          <li>\n            <p>\n              <code>ProductSKU</code>\n            </p>\n
        </li>\n          <li>\n            <p>\n              <code>LicenseIssuerName</code>\n            </p>\n
</li>\n          <li>\n            <p>\n              <code>LicenseArn</code>\n            </p>\n          </li>\n
<li>\n            <p>\n              <code>GrantStatus</code>\n            </p>\n          </li>\n          <li>\n
<p>\n
        <code>GranterAccountId</code>\n            </p>\n          </li>\n        </ul>"
                }
            },
```

```
        "NextToken": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Token for the next set of results.</p>"
          }
        },
        "MaxResults": {
          "target": "com.amazonaws.licensemanager#MaxSize100",
          "traits": {
            "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#ListReceivedGrantsResponse": {
      "type": "structure",
      "members": {
        "Grants": {
          "target": "com.amazonaws.licensemanager#GrantList",
           "traits": {
            "smithy.api#documentation": "<p>Received grant details.</p>"
          }
        },
        "NextToken": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Token for the next set of results.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanager#ListReceivedLicenses": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#ListReceivedLicensesRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#ListReceivedLicensesResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
```

```
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
          "target": "com.amazonaws.licensemanager#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Lists received licenses.</p>"
      }
    },
    "com.amazonaws.licensemanager#ListReceivedLicensesForOrganization":
{
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#ListReceivedLicensesForOrganizationRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#ListReceivedLicensesForOrganizationResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
```

```
            },
            {

        "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists the licenses received for all accounts in the organization.</p>"
        }
    },
    "com.amazonaws.licensemanager#ListReceivedLicensesForOrganizationRequest": {
        "type": "structure",
        "members": {
            "Filters": {
                "target": "com.amazonaws.licensemanager#FilterList",
                "traits": {
                    "smithy.api#documentation": "<p>Filters to scope the results. The following filters are
supported:</p>\n        <ul>\n            <li>\n                <p>\n                    <code>Beneficiary</code>\n                </p>\n
        </li>\n            <li>\n                <p>\n                    <code>ProductSKU</code>\n
            </p>\n            </li>\n        </ul>"
                }
            },
            "NextToken": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Token for the next set of results.</p>"
                }
            },
            "MaxResults": {
                "target": "com.amazonaws.licensemanager#MaxSize100",
                "traits": {
                    "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#ListReceivedLicensesForOrganizationResponse": {
        "type": "structure",
        "members": {
            "Licenses": {
                "target": "com.amazonaws.licensemanager#GrantedLicenseList",
```

```
            "traits": {
              "smithy.api#documentation": "<p>Lists the licenses the organization has received.</p>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#ListReceivedLicensesRequest": {
        "type": "structure",
        "members": {
          "LicenseArns": {
            "target": "com.amazonaws.licensemanager#ArnList",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Names (ARNs) of the licenses.</p>"
            }
          },

          "Filters": {
            "target": "com.amazonaws.licensemanager#FilterList",
            "traits": {
              "smithy.api#documentation": "<p>Filters to scope the results. The following filters are
supported:</p>\n        <ul>\n          <li>\n            <p>\n              <code>ProductSKU</code>\n            </p>\n
        </li>\n          <li>\n            <p>\n              <code>Status</code>\n            </p>\n          </li>\n
<li>\n            <p>\n              <code>Fingerprint</code>\n            </p>\n          </li>\n          <li>\n
<p>\n              <code>IssuerName</code>\n            </p>\n          </li>\n          <li>\n            <p>\n
<code>Beneficiary</code>\n            </p>\n          </li>\n        </ul>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanager#MaxSize100",
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          }
```

```
    },
    "traits": {
      "smithy.api#input": {}
    }
  },
  "com.amazonaws.licensemanager#ListReceivedLicensesResponse": {
    "type": "structure",
    "members": {
      "Licenses": {
        "target": "com.amazonaws.licensemanager#GrantedLicenseList",
        "traits": {
          "smithy.api#documentation": "<p>Received license details.</p>"
        }
      },

     "NextToken": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>Token for the next set of results.</p>"
        }
      }
    },
    "traits": {
      "smithy.api#output": {}
    }
  },
  "com.amazonaws.licensemanager#ListResourceInventory": {
    "type": "operation",
    "input": {
      "target": "com.amazonaws.licensemanager#ListResourceInventoryRequest"
    },
    "output": {
      "target": "com.amazonaws.licensemanager#ListResourceInventoryResponse"
    },
    "errors": [
      {
        "target": "com.amazonaws.licensemanager#AccessDeniedException"
      },
      {
        "target": "com.amazonaws.licensemanager#AuthorizationException"
      },
      {
        "target": "com.amazonaws.licensemanager#FailedDependencyException"
      },
      {
        "target": "com.amazonaws.licensemanager#FilterLimitExceededException"
      },
      {
```

```
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Lists resources managed using Systems Manager inventory.</p>"
        }
      },
      "com.amazonaws.licensemanager#ListResourceInventoryRequest": {
        "type": "structure",
        "members": {
          "MaxResults": {
            "target": "com.amazonaws.licensemanager#BoxInteger",
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          },
          "Filters": {
            "target": "com.amazonaws.licensemanager#InventoryFilterList",
            "traits": {
              "smithy.api#documentation": "<p>Filters to scope the results. The following filters and logical
operators\n are supported:</p>\n <ul>\n <li>\n <p>\n <code>account_id</code>
- The ID of the Amazon Web Services account that owns the resource.\n Logical operators are
<code>EQUALS</code> | <code>NOT_EQUALS</code>.</p>\n
 </li>\n <li>\n <p>\n <code>application_name</code> - The name of the
application. \n Logical operators are <code>EQUALS</code> | <code>BEGINS_WITH</code>.</p>\n
 </li>\n <li>\n <p>\n <code>license_included</code> - The type of license included. \n
 Logical operators are <code>EQUALS</code> | <code>NOT_EQUALS</code>.\n Possible values
are <code>sql-server-enterprise</code> | \n <code>sql-server-standard</code> | \n <code>sql-
server-web</code> | \n <code>windows-server-datacenter</code>.</p>\n </li>\n <li>\n
 <p>\n <code>platform</code> - The platform of the resource.\n Logical operators are
<code>EQUALS</code> | <code>BEGINS_WITH</code>.</p>\n </li>\n <li>\n <p>\n
 <code>resource_id</code> - The ID of the resource. \n Logical operators are
<code>EQUALS</code> | <code>NOT_EQUALS</code>.</p>\n </li>\n <li>\n <p>\n
 <code>tag:<key></code> - The key/value combination of a tag assigned \n to the resource. Logical
operators are <code>EQUALS</code> (single account) or\n <code>EQUALS</code> |
<code>NOT_EQUALS</code> (cross account).</p>\n </li>\n </ul>"
```

```
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#ListResourceInventoryResponse": {
        "type": "structure",
        "members": {
          "ResourceInventoryList": {
            "target": "com.amazonaws.licensemanager#ResourceInventoryList",
            "traits": {
              "smithy.api#documentation": "<p>Information
about the resources.</p>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#ListTagsForResource": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#ListTagsForResourceRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#ListTagsForResourceResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
           },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
```

```
            },
            {
               "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Lists the tags for the specified license configuration.</p>"
         }
      },
      "com.amazonaws.licensemanager#ListTagsForResourceRequest": {
         "type": "structure",
         "members": {
            "ResourceArn": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license
configuration.</p>",

      "smithy.api#required": {}
               }
            }
         },
         "traits": {
            "smithy.api#input": {}
         }
      },
      "com.amazonaws.licensemanager#ListTagsForResourceResponse": {
         "type": "structure",
         "members": {
            "Tags": {
               "target": "com.amazonaws.licensemanager#TagList",
               "traits": {
                  "smithy.api#documentation": "<p>Information about the tags.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#output": {}
         }
      },
      "com.amazonaws.licensemanager#ListTokens": {
         "type": "operation",
         "input": {
            "target": "com.amazonaws.licensemanager#ListTokensRequest"
         },
         "output": {
            "target": "com.amazonaws.licensemanager#ListTokensResponse"
         },
```

```
        "errors":
[
            {
               "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
               "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
               "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
               "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
               "target": "com.amazonaws.licensemanager#ValidationException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Lists your tokens.</p>"
         }
      },
      "com.amazonaws.licensemanager#ListTokensRequest": {
         "type": "structure",
         "members": {
            "TokenIds": {
               "target": "com.amazonaws.licensemanager#StringList",
               "traits": {

                  "smithy.api#documentation": "<p>Token IDs.</p>"
               }
            },
            "Filters": {
               "target": "com.amazonaws.licensemanager#FilterList",
               "traits": {
                  "smithy.api#documentation": "<p>Filters to scope the results. The following filter is supported:</p>\n
      <ul>\n          <li>\n          <p>\n          <code>LicenseArns</code>\n          </p>\n          </li>\n
</ul>"
               }
            },
            "NextToken": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Token for the next set of results.</p>"
               }
            },
            "MaxResults": {
               "target": "com.amazonaws.licensemanager#MaxSize100",
```

```
            "traits": {
                "smithy.api#documentation":
"<p>Maximum number of results to return in a single call.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#ListTokensResponse": {
        "type": "structure",
        "members": {
          "Tokens": {
            "target": "com.amazonaws.licensemanager#TokenList",
            "traits": {
              "smithy.api#documentation": "<p>Received token details.</p>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#ListUsageForLicenseConfiguration":
{
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#ListUsageForLicenseConfigurationRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#ListUsageForLicenseConfigurationResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#FilterLimitExceededException"
```

```
            },
            {
               "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
               "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
             {
               "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Lists all license usage records for a license configuration, displaying license\n consumption details by resource at a selected point in time. Use this action to audit the\n current license consumption for any license inventory and configuration.</p>"
         }
      },
      "com.amazonaws.licensemanager#ListUsageForLicenseConfigurationRequest": {
         "type": "structure",
         "members": {
            "LicenseConfigurationArn": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license configuration.</p>",
                  "smithy.api#required": {}
               }
            },
             "MaxResults": {
               "target": "com.amazonaws.licensemanager#BoxInteger",
               "traits": {
                  "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
               }
            },
            "NextToken": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Token for the next set of results.</p>"
               }
            },
            "Filters": {
               "target": "com.amazonaws.licensemanager#Filters",
               "traits": {
                  "smithy.api#documentation": "<p>Filters to scope the results. The following filters and logical operators\n are supported:</p>\n <ul>\n <li>\n <p>\n <code>resourceArn</code> - The ARN of the license configuration resource.\n Logical operators are <code>EQUALS</code> | <code>NOT_EQUALS</code>.</p>\n </li>\n <li>\n <p>\n <code>resourceType</code> - The resource type
```

(<code>EC2_INSTANCE</code> | <code>EC2_HOST</code> | <code>EC2_AMI</code> |
<code>SYSTEMS_MANAGER_MANAGED_INSTANCE</code>). \n Logical operators are
<code>EQUALS</code> | <code>NOT_EQUALS</code>. \n \n \n \n
<code>resourceAccount</code> - The ID of the account that owns the resource. \n Logical operators
are <code>EQUALS</code> | <code>NOT_EQUALS</code>. \n \n "
}
}
},
"traits": {
"smithy.api#input": {}
}
},
"com.amazonaws.licensemanager#ListUsageForLicenseConfigurationResponse": {
"type": "structure",
"members": {

"LicenseConfigurationUsageList": {
"target": "com.amazonaws.licensemanager#LicenseConfigurationUsageList",
"traits": {
"smithy.api#documentation": " Information about the license configurations. "
}
},
"NextToken": {
"target": "com.amazonaws.licensemanager#String",
"traits": {
"smithy.api#documentation": " Token for the next set of results. "
}
}
},
"traits": {
"smithy.api#output": {}
}
},
"com.amazonaws.licensemanager#Location": {
"type": "string"
},
"com.amazonaws.licensemanager#Long": {
"type": "long"
},
"com.amazonaws.licensemanager#ManagedResourceSummary": {
"type": "structure",
"members": {
"ResourceType":
{
"target": "com.amazonaws.licensemanager#ResourceType",
"traits": {
"smithy.api#documentation": " Type of resource associated with a license. "
}

```
        },
        "AssociationCount": {
          "target": "com.amazonaws.licensemanager#BoxLong",
          "traits": {
            "smithy.api#documentation": "<p>Number of resources associated with licenses.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>Summary information about a managed resource.</p>"
      }
    },
    "com.amazonaws.licensemanager#ManagedResourceSummaryList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanager#ManagedResourceSummary"
      }
    },
    "com.amazonaws.licensemanager#MaxSize100": {

    "type": "integer",
      "traits": {
        "smithy.api#range": {
          "min": 1,
          "max": 100
        }
      }
    },
    "com.amazonaws.licensemanager#MaxSize3StringList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanager#String"
      },
      "traits": {
        "smithy.api#length": {
          "min": 0,
          "max": 3
        }
      }
    },
    "com.amazonaws.licensemanager#Message": {
      "type": "string"
    },
    "com.amazonaws.licensemanager#Metadata": {
      "type": "structure",
      "members": {
        "Name": {
          "target": "com.amazonaws.licensemanager#String",
```

```
            "traits": {
                "smithy.api#documentation": "<p>The key name.</p>"
            }
        },

    "Value": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>The value.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#documentation": "<p>Describes key/value pairs.</p>"
    }
},
"com.amazonaws.licensemanager#MetadataList": {
    "type": "list",
    "member": {
        "target": "com.amazonaws.licensemanager#Metadata"
    }
},
"com.amazonaws.licensemanager#NoEntitlementsAllowedException": {
    "type": "structure",
    "members": {
        "Message": {
            "target": "com.amazonaws.licensemanager#Message"
        }
    },
    "traits": {
        "smithy.api#documentation": "<p>There are no entitlements found for this license, or the entitlement maximum count is reached.</p>",
         "smithy.api#error": "client",
        "smithy.api#httpError": 400
    }
},
"com.amazonaws.licensemanager#Options": {
    "type": "structure",
    "members": {
        "ActivationOverrideBehavior": {
            "target": "com.amazonaws.licensemanager#ActivationOverrideBehavior",
            "traits": {
                "smithy.api#documentation": "<p>An activation option for your grant that determines the behavior of activating a grant.\n          Activation options can only be used with granted licenses sourced from the Amazon Web Services Marketplace. Additionally, the operation must specify the value of <code>ACTIVE</code> for the\n          <code>Status</code> parameter.</p>\n          <ul>\n          <li>\n          <p>As a license administrator, you can optionally specify an\n                <code>ActivationOverrideBehavior</code> when activating a grant.</p>\n
```

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  </li>\n          <li>\n              <p>As a grantor, you can optionally specify an\n
<code>ActivationOverrideBehavior</code> when you activate a grant for a grantee\n                account in your
organization.</p>\n          </li>\n          <li>\n              <p>As a grantee, if the grantor creating the distributed
grant doesnt specify an\n                <code>ActivationOverrideBehavior</code>, you can optionally specify one
when you\n                are activating the grant.</p>\n          </li>\n        </ul>\n        <dl>\n
<dt>DISTRIBUTED_GRANTS_ONLY</dt>\n          <dd>\n              <p>Use this value to activate a grant
without replacing any member accounts\n                active grants for the same product.</p>\n          </dd>\n
<dt>ALL_GRANTS_PERMITTED_BY_ISSUER</dt>\n          <dd>\n              <p>Use this value to activate a
grant and disable other active grants in any\n                member accounts
 for the same product. This action will also replace their\n                previously activated grants with this activated
grant.</p>\n          </dd>\n        </dl>"
                }
              }
          },
          "traits": {
              "smithy.api#documentation": "<p>The options you can specify when you create a new version of a grant,
such as activation\n          override behavior. For more information, see <a
href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/granted-licenses.html\">Granted licenses in
License Manager</a> in the <i>License Manager User Guide</i>.</p>"
          }
      },
      "com.amazonaws.licensemanager#OrganizationConfiguration": {
          "type": "structure",
          "members": {
              "EnableIntegration": {
                  "target": "com.amazonaws.licensemanager#Boolean",
                  "traits": {
                      "smithy.api#default": false,
                      "smithy.api#documentation":
 "<p>Enables Organizations integration.</p>",
                      "smithy.api#required": {}
                  }
              }
          },
          "traits": {
              "smithy.api#documentation": "<p>Configuration information for Organizations.</p>"
          }
      },
      "com.amazonaws.licensemanager#PrincipalArnList": {
          "type": "list",
          "member": {
              "target": "com.amazonaws.licensemanager#Arn"
          },
          "traits": {
              "smithy.api#length": {
                  "min": 1,
                  "max": 1
              }
```

```
        }
      },
      "com.amazonaws.licensemanager#ProductInformation": {
        "type": "structure",
        "members": {
          "ResourceType": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Resource type. The
possible values are <code>SSM_MANAGED</code> | <code>RDS</code>.</p>",
              "smithy.api#required": {}
            }
          },
          "ProductInformationFilterList": {
            "target": "com.amazonaws.licensemanager#ProductInformationFilterList",
            "traits": {
              "smithy.api#documentation": "<p>A Product information filter consists of a
<code>ProductInformationFilterComparator</code> which is a logical operator, a
<code>ProductInformationFilterName</code> which specifies the type of filter being declared, and a
<code>ProductInformationFilterValue</code> that specifies the value to filter on. </p>\n          <p>Accepted values
for <code>ProductInformationFilterName</code> are listed here along with descriptions and valid options for
<code>ProductInformationFilterComparator</code>. </p>\n          <p>The following filters and are supported when
the resource type \n          is <code>SSM_MANAGED</code>:</p>\n
          <ul>\n            <li>\n              <p>\n                <code>Application Name</code> - The name of the
application.\n                Logical operator is <code>EQUALS</code>.</p>\n            </li>\n            <li>\n
<p>\n                <code>Application Publisher</code> - The publisher of the application.\n                Logical
operator is <code>EQUALS</code>.</p>\n            </li>\n            <li>\n              <p>\n
<code>Application Version</code> - The version of the application.\n                Logical operator is
<code>EQUALS</code>.</p>\n            </li>\n            <li>\n              <p>\n                <code>Platform
Name</code> - The name of the platform.\n                Logical operator is <code>EQUALS</code>.</p>\n
</li>\n            <li>\n              <p>\n                <code>Platform Type</code> - The platform type.\n
Logical operator is <code>EQUALS</code>.</p>\n
          </li>\n            <li>\n              <p>\n                <code>Tag:key</code> - The key of a tag attached to an
Amazon Web Services resource you wish to exclude from automated discovery. Logical operator is
<code>NOT_EQUALS</code>.  The key for your tag must be appended to <code>Tag:</code> following the
example: <code>Tag:name-of-your-key</code>. <code>ProductInformationFilterValue</code> is optional if you
are not using values for the key.\n                </p>\n            </li>\n            <li>\n              <p>\n
<code>AccountId</code> - The 12-digit ID of an Amazon Web Services account you wish to exclude from
automated discovery.\n                Logical operator is <code>NOT_EQUALS</code>.</p>\n            </li>\n
<li>\n              <p>\n                <code>License Included</code> - The type of license included.\n                Logical
operators are <code>EQUALS</code> and <code>NOT_EQUALS</code>.\n                Possible values are:
 <code>sql-server-enterprise</code> | \n                <code>sql-server-standard</code> | \n                <code>sql-server-
web</code> |  \n                <code>windows-server-datacenter</code>.</p>\n            </li>\n          </ul>\n
<p>The following filters and logical operators are supported when the resource type\n          is
<code>RDS</code>:</p>\n          <ul>\n            <li>\n              <p>\n                <code>Engine Edition</code> -
The edition of the database engine.\n                Logical operator is <code>EQUALS</code>.\n                Possible
values are: <code>oracle-ee</code> | <code>oracle-se</code> | <code>oracle-se1</code> | <code>oracle-
se2</code>.</p>\n            </li>\n            <li>\n              <p>\n                <code>License Pack</code> - The license
```

```
pack.\n            Logical operator is <code>EQUALS</code>.\n            Possible values are: <code>data
guard</code> | \n            <code>diagnostic pack sqlt</code> | \n
          <code>tuning pack sqlt</code> | \n            <code>ols</code> | \n            <code>olap</code>.</p>\n
    </li>\n        </ul>",
                "smithy.api#required": {}
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>Describes product information for a license configuration.</p>"
          }
        },
        "com.amazonaws.licensemanager#ProductInformationFilter": {
          "type": "structure",
          "members": {
            "ProductInformationFilterName": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Filter name.</p>",
                "smithy.api#required": {}
              }
            },
            "ProductInformationFilterValue": {
              "target": "com.amazonaws.licensemanager#StringList",

           "traits": {
                "smithy.api#documentation": "<p>Filter value.</p>"
              }
            },
            "ProductInformationFilterComparator": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Logical operator.</p>",
                "smithy.api#required": {}
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>Describes product information filters.</p>"
          }
        },
        "com.amazonaws.licensemanager#ProductInformationFilterList": {
          "type": "list",
          "member": {
            "target": "com.amazonaws.licensemanager#ProductInformationFilter"
          }
        },
        "com.amazonaws.licensemanager#ProductInformationList": {
```

```
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanager#ProductInformation"
      }
    },
    "com.amazonaws.licensemanager#ProvisionalConfiguration": {
      "type": "structure",
      "members": {
        "MaxTimeToLiveInMinutes": {
          "target": "com.amazonaws.licensemanager#BoxInteger",
          "traits": {
            "smithy.api#documentation": "<p>Maximum time for the provisional configuration, in minutes.</p>",
            "smithy.api#required": {}
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>Details about a provisional configuration.</p>"
      }
    },
    "com.amazonaws.licensemanager#RateLimitExceededException": {
      "type": "structure",
      "members": {
        "Message": {
          "target": "com.amazonaws.licensemanager#Message"
        }
      },
      "traits": {
        "aws.protocols#awsQueryError": {
          "code": "RateLimitExceeded",
          "httpResponseCode": 429
        },
        "smithy.api#documentation": "<p>Too many requests have been submitted. Try again after a brief
wait.</p>",
        "smithy.api#error": "client",
        "smithy.api#httpError": 429
      }
    },
    "com.amazonaws.licensemanager#ReceivedMetadata": {
      "type": "structure",
      "members": {
        "ReceivedStatus": {
          "target": "com.amazonaws.licensemanager#ReceivedStatus",
          "traits": {
            "smithy.api#documentation": "<p>Received status.</p>"
          }
        },
        "ReceivedStatusReason": {
```

```
            "target": "com.amazonaws.licensemanager#StatusReasonMessage",
            "traits": {
              "smithy.api#documentation": "<p>Received
status reason.</p>"
            }
          },
          "AllowedOperations": {
            "target": "com.amazonaws.licensemanager#AllowedOperationList",
            "traits": {
              "smithy.api#documentation": "<p>Allowed operations.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Metadata associated with received licenses and grants.</p>"
        }
      },
      "com.amazonaws.licensemanager#ReceivedStatus": {
        "type": "enum",
        "members": {
          "PENDING_WORKFLOW": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "PENDING_WORKFLOW"
            }
          },
          "PENDING_ACCEPT": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue":
"PENDING_ACCEPT"
            }
          },
          "REJECTED": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "REJECTED"
            }
          },
          "ACTIVE": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "ACTIVE"
            }
          },
          "FAILED_WORKFLOW": {
            "target": "smithy.api#Unit",
            "traits": {
```

```
            "smithy.api#enumValue": "FAILED_WORKFLOW"
          }
        },
        "DELETED": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "DELETED"
          }
        },
        "DISABLED": {
          "target": "smithy.api#Unit",
           "traits": {
            "smithy.api#enumValue": "DISABLED"
          }
        },
        "WORKFLOW_COMPLETED": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "WORKFLOW_COMPLETED"
          }
        }
      }
    },
    "com.amazonaws.licensemanager#RedirectException": {
      "type": "structure",
      "members": {
        "Location": {
          "target": "com.amazonaws.licensemanager#Location",
          "traits": {
            "smithy.api#httpHeader": "Location"
          }
        },
        "Message": {
          "target": "com.amazonaws.licensemanager#Message"
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>This is not the correct Region for the resource. Try again.</p>",
         "smithy.api#error": "client",
        "smithy.api#httpError": 308
      }
    },
    "com.amazonaws.licensemanager#RejectGrant": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#RejectGrantRequest"
      },
      "output": {
```

```
            "target": "com.amazonaws.licensemanager#RejectGrantResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target":
"com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Rejects the specified grant.</p>"
        }
    },
    "com.amazonaws.licensemanager#RejectGrantRequest": {
        "type": "structure",
        "members": {
            "GrantArn": {
                "target": "com.amazonaws.licensemanager#Arn",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the grant.</p>",
                    "smithy.api#required": {}
                }
            }
        },
        "traits": {
            "smithy.api#input": {}

  }
    },
    "com.amazonaws.licensemanager#RejectGrantResponse": {
        "type": "structure",
```

```
      "members": {
        "GrantArn": {
          "target": "com.amazonaws.licensemanager#Arn",
          "traits": {
            "smithy.api#documentation": "<p>Grant ARN.</p>"
          }
        },
        "Status": {
          "target": "com.amazonaws.licensemanager#GrantStatus",
          "traits": {
            "smithy.api#documentation": "<p>Grant status.</p>"
          }
        },
        "Version": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Grant version.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanager#RenewType":
{
      "type": "enum",
      "members": {
        "NONE": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "None"
          }
        },
        "WEEKLY": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Weekly"
          }
        },
        "MONTHLY": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Monthly"
          }
        }
      }
    },
```

```
    "com.amazonaws.licensemanager#ReportContext": {
      "type": "structure",
      "members": {
        "licenseConfigurationArns": {
          "target": "com.amazonaws.licensemanager#ArnList",
          "traits": {

      "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license configuration that this
generator reports on.</p>",
            "smithy.api#required": {}
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>Details of the license configuration that this generator reports on.</p>"
      }
    },
    "com.amazonaws.licensemanager#ReportFrequency": {
      "type": "structure",
      "members": {
        "value": {
          "target": "com.amazonaws.licensemanager#Integer",
          "traits": {
            "smithy.api#documentation": "<p>Number of times within the frequency period that a report is
generated.  \n        The only supported value is <code>1</code>.</p>"
          }
        },
        "period": {
          "target": "com.amazonaws.licensemanager#ReportFrequencyType",

          "traits": {
            "smithy.api#documentation": "<p>Time period between each report. The period can be daily, weekly,
or monthly.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>Details about how frequently reports are generated.</p>"
      }
    },
    "com.amazonaws.licensemanager#ReportFrequencyType": {
      "type": "enum",
      "members": {
        "DAY": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "DAY"
          }
```

```
            },
            "WEEK": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "WEEK"
               }
            },
            "MONTH": {
               "target": "smithy.api#Unit",
               "traits":
{
                  "smithy.api#enumValue": "MONTH"
               }
            }
         }
      },
      "com.amazonaws.licensemanager#ReportGenerator": {
         "type": "structure",
         "members": {
            "ReportGeneratorName": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Name of the report generator.</p>"
               }
            },
            "ReportType": {
               "target": "com.amazonaws.licensemanager#ReportTypeList",
               "traits": {
                  "smithy.api#documentation": "<p>Type of reports that are generated.</p>"
               }
            },
            "ReportContext": {
               "target": "com.amazonaws.licensemanager#ReportContext",
               "traits": {
                  "smithy.api#documentation": "<p>License
configuration type for this generator.</p>"
               }
            },
            "ReportFrequency": {
               "target": "com.amazonaws.licensemanager#ReportFrequency",
               "traits": {
                  "smithy.api#documentation": "<p>Details about how frequently reports are generated.</p>"
               }
            },
            "LicenseManagerReportGeneratorArn": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the report generator.</p>"
```

```
            }
        },
        "LastRunStatus": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Status of the last report generation attempt.</p>"
            }
        },
        "LastRunFailureReason":
{
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Failure message for the last report generation attempt.</p>"
            }
        },
        "LastReportGenerationTime": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Time the last report was generated at.</p>"
            }
        },
        "ReportCreatorAccount": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>The Amazon Web Services account ID used to create the report
generator.</p>"
            }
        },
        "Description": {
            "target": "com.amazonaws.licensemanager#String",

    "traits": {
                "smithy.api#documentation": "<p>Description of the report generator.</p>"
            }
        },
        "S3Location": {
            "target": "com.amazonaws.licensemanager#S3Location",
            "traits": {
                "smithy.api#documentation": "<p>Details of the S3 bucket that report generator reports are published
to.</p>"
            }
        },
        "CreateTime": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Time the report was created.</p>"
            }
        },
```

```
        "Tags": {
          "target": "com.amazonaws.licensemanager#TagList",
          "traits": {
            "smithy.api#documentation": "<p>Tags associated with the report generator.</p>"
          }

}
    },
    "traits": {
      "smithy.api#documentation": "<p>Describe the details of a report generator.</p>"
    }
  },
  "com.amazonaws.licensemanager#ReportGeneratorList": {
    "type": "list",
    "member": {
      "target": "com.amazonaws.licensemanager#ReportGenerator"
    }
  },
  "com.amazonaws.licensemanager#ReportGeneratorName": {
    "type": "string",
    "traits": {
      "smithy.api#length": {
        "min": 1,
        "max": 100
      }
    }
  },
  "com.amazonaws.licensemanager#ReportType": {
    "type": "enum",
    "members": {
      "LICENSE_CONFIGURATION_SUMMARY_REPORT": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "LicenseConfigurationSummaryReport"
        }

  },
        "LICENSE_CONFIGURATION_USAGE_REPORT": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "LicenseConfigurationUsageReport"
          }
        }
    }
  },
  "com.amazonaws.licensemanager#ReportTypeList": {
    "type": "list",
    "member": {
```

```
            "target": "com.amazonaws.licensemanager#ReportType"
          }
        },
        "com.amazonaws.licensemanager#ResourceInventory": {
          "type": "structure",
          "members": {
            "ResourceId": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>ID of the resource.</p>"
              }
            },
            "ResourceType": {
              "target": "com.amazonaws.licensemanager#ResourceType",
              "traits":
{
                "smithy.api#documentation": "<p>Type of resource.</p>"
              }
            },
            "ResourceArn": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the resource.</p>"
              }
            },
            "Platform": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Platform of the resource.</p>"
              }
            },
            "PlatformVersion": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Platform version of the resource in the inventory.</p>"
              }
            },
            "ResourceOwningAccountId":
{
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>ID of the account that owns the resource.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>Details about a resource.</p>"
          }
```

```
},
"com.amazonaws.licensemanager#ResourceInventoryList": {
    "type": "list",
    "member": {
        "target": "com.amazonaws.licensemanager#ResourceInventory"
    }
},
"com.amazonaws.licensemanager#ResourceLimitExceededException": {
    "type": "structure",
    "members": {
        "Message": {
            "target": "com.amazonaws.licensemanager#Message"
        }
    },
    "traits": {
        "aws.protocols#awsQueryError": {
            "code": "ResourceLimitExceeded",

         "httpResponseCode": 400
        },
        "smithy.api#documentation": "<p>Your resource limits have been exceeded.</p>",
        "smithy.api#error": "client",
        "smithy.api#httpError": 400
    }
},
"com.amazonaws.licensemanager#ResourceNotFoundException": {
    "type": "structure",
    "members": {
        "Message": {
            "target": "com.amazonaws.licensemanager#Message"
        }
    },
    "traits": {
        "aws.protocols#awsQueryError": {
            "code": "InvalidResource.NotFound",
            "httpResponseCode": 400
        },
        "smithy.api#documentation": "<p>The resource cannot be found.</p>",
        "smithy.api#error": "client",
        "smithy.api#httpError": 400
    }
},
"com.amazonaws.licensemanager#ResourceType": {
    "type": "enum",
     "members": {
        "EC2_INSTANCE": {
            "target": "smithy.api#Unit",
            "traits": {
```

```
                "smithy.api#enumValue": "EC2_INSTANCE"
              }
            },
            "EC2_HOST": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "EC2_HOST"
              }
            },
            "EC2_AMI": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "EC2_AMI"
              }
            },
            "RDS": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "RDS"
              }
            },
            "SYSTEMS_MANAGER_MANAGED_INSTANCE": {
              "target": "smithy.api#Unit",
              "traits": {
                 "smithy.api#enumValue": "SYSTEMS_MANAGER_MANAGED_INSTANCE"
              }
            }
          }
        },
        "com.amazonaws.licensemanager#S3Location": {
          "type": "structure",
          "members": {
            "bucket": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Name of the S3 bucket reports are published to.</p>"
              }
            },
            "keyPrefix": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Prefix of the S3 bucket reports are published to.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>Details of the S3 bucket that report generator reports are published
to.</p>"
```

```
        }
      },
      "com.amazonaws.licensemanager#ServerInternalException": {
        "type": "structure",
        "members": {
          "Message": {
            "target": "com.amazonaws.licensemanager#Message"
          }
        },
        "traits": {
          "aws.protocols#awsQueryError": {
            "code": "InternalError",
            "httpResponseCode": 500
          },
          "smithy.api#documentation": "<p>The server experienced an internal error. Try again.</p>",
          "smithy.api#error": "server",
          "smithy.api#httpError": 500
        }
      },
      "com.amazonaws.licensemanager#SignedToken": {
        "type": "string",
        "traits": {
          "smithy.api#length": {
            "min": 4096
          }
        }
      },
      "com.amazonaws.licensemanager#StatusReasonMessage": {
        "type": "string",
        "traits":
{
          "smithy.api#length": {
            "min": 0,
            "max": 400
          },
          "smithy.api#pattern": "^[\\s\\S]+$"
        }
      },
      "com.amazonaws.licensemanager#String": {
        "type": "string"
      },
      "com.amazonaws.licensemanager#StringList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#String"
        }
      },
      "com.amazonaws.licensemanager#Tag": {
```

```
        "type": "structure",
        "members": {
          "Key": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Tag key.</p>"
            }
          },
          "Value": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation":
"<p>Tag value.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Details about a tag for a license configuration.</p>"
        }
      },
      "com.amazonaws.licensemanager#TagKeyList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#String"
        }
      },
      "com.amazonaws.licensemanager#TagList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#Tag"
        }
      },
      "com.amazonaws.licensemanager#TagResource": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#TagResourceRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#TagResourceResponse"
        },
        "errors": [
          {
            "target":
"com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
```

```
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Adds the specified tags to the specified license configuration.</p>"
        }
    },
    "com.amazonaws.licensemanager#TagResourceRequest": {
        "type": "structure",
        "members": {
            "ResourceArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits":
{
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license
configuration.</p>",
                    "smithy.api#required": {}
                }
            },
            "Tags": {
                "target": "com.amazonaws.licensemanager#TagList",
                "traits": {
                    "smithy.api#documentation": "<p>One or more tags.</p>",
                    "smithy.api#required": {}
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#TagResourceResponse": {
        "type": "structure",
        "members": {},
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#TokenData": {
        "type": "structure",
        "members": {
```

```
            "TokenId": {
              "target": "com.amazonaws.licensemanager#String",
               "traits": {
                 "smithy.api#documentation": "<p>Token ID.</p>"
              }
            },
            "TokenType": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                 "smithy.api#documentation": "<p>Type of token generated. The supported value is
<code>REFRESH_TOKEN</code>.</p>"
              }
            },
            "LicenseArn": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                 "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>"
              }
            },
            "ExpirationTime": {
              "target": "com.amazonaws.licensemanager#ISO8601DateTime",
              "traits": {
                 "smithy.api#documentation": "<p>Token expiration time, in ISO8601-UTC
 format.</p>"
              }
            },
            "TokenProperties": {
              "target": "com.amazonaws.licensemanager#MaxSize3StringList",
              "traits": {
                 "smithy.api#documentation": "<p>Data specified by the caller.</p>"
              }
            },
            "RoleArns": {
              "target": "com.amazonaws.licensemanager#ArnList",
              "traits": {
                 "smithy.api#documentation": "<p>Amazon Resource Names (ARN) of the roles included in the
token.</p>"
              }
            },
            "Status": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                 "smithy.api#documentation": "<p>Token status. The possible values are
<code>AVAILABLE</code> and <code>DELETED</code>.</p>"
              }
            }
          },
          "traits": {
```

```
            "smithy.api#documentation": "<p>Describes a token.</p>"
        }
    },
    "com.amazonaws.licensemanager#TokenList": {
        "type": "list",
        "member": {
            "target": "com.amazonaws.licensemanager#TokenData"
        }
    },
    "com.amazonaws.licensemanager#TokenString": {
        "type": "string",
        "traits": {
            "smithy.api#length": {
                "min": 0,
                "max": 4096
            },
            "smithy.api#pattern": "^\\S+$"
        }
    },
    "com.amazonaws.licensemanager#TokenType": {
        "type": "enum",
        "members": {
            "REFRESH_TOKEN": {
                "target": "smithy.api#Unit",
                "traits": {
                    "smithy.api#enumValue": "REFRESH_TOKEN"
                }
            }
        }
    },
    "com.amazonaws.licensemanager#UnsupportedDigitalSignatureMethodException":
{
        "type": "structure",
        "members": {
            "Message": {
                "target": "com.amazonaws.licensemanager#Message"
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>The digital signature method is unsupported. Try your request
again.</p>",
            "smithy.api#error": "client",
            "smithy.api#httpError": 400
        }
    },
    "com.amazonaws.licensemanager#UntagResource": {
        "type": "operation",
```

```
        "input": {
            "target": "com.amazonaws.licensemanager#UntagResourceRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#UntagResourceResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
             },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Removes the specified tags from the specified license
configuration.</p>"
        }
    },
    "com.amazonaws.licensemanager#UntagResourceRequest": {
        "type": "structure",
        "members": {
            "ResourceArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license
configuration.</p>",
                     "smithy.api#required": {}
                }
            },
            "TagKeys": {
                "target": "com.amazonaws.licensemanager#TagKeyList",
                "traits": {
                    "smithy.api#documentation": "<p>Keys identifying the tags to remove.</p>",
                    "smithy.api#required": {}
                }
            }
        },
        "traits": {
```

```
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#UntagResourceResponse": {
        "type": "structure",
        "members": {},
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#UpdateLicenseConfiguration": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#UpdateLicenseConfigurationRequest"
        },
        "output": {

"target": "com.amazonaws.licensemanager#UpdateLicenseConfigurationResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Modifies the attributes of an existing license configuration.</p>"
         }
    },
    "com.amazonaws.licensemanager#UpdateLicenseConfigurationRequest": {
        "type": "structure",
        "members": {
            "LicenseConfigurationArn": {
                "target": "com.amazonaws.licensemanager#String",
```

```
            "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license
configuration.</p>",
                "smithy.api#required": {}
            }
        },
        "LicenseConfigurationStatus": {
            "target": "com.amazonaws.licensemanager#LicenseConfigurationStatus",
            "traits": {
                "smithy.api#documentation": "<p>New status of the license configuration.</p>"
            }
        },
        "LicenseRules": {
            "target": "com.amazonaws.licensemanager#StringList",
            "traits": {

 "smithy.api#documentation": "<p>New license rule. The only rule that you can add after you create a license\n
 configuration is licenseAffinityToHost.</p>"
            }
        },
        "LicenseCount": {
            "target": "com.amazonaws.licensemanager#BoxLong",
            "traits": {
                "smithy.api#documentation": "<p>New number of licenses managed by the license
configuration.</p>"
            }
        },
        "LicenseCountHardLimit": {
            "target": "com.amazonaws.licensemanager#BoxBoolean",
            "traits": {
                "smithy.api#documentation": "<p>New hard limit of the number of available licenses.</p>"
            }
        },
        "Name": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>New name
 of the license configuration.</p>"
            }
        },
        "Description": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>New description of the license configuration.</p>"
            }
        },
        "ProductInformationList": {
            "target": "com.amazonaws.licensemanager#ProductInformationList",
```

```
            "traits": {
                "smithy.api#documentation": "<p>New product information.</p>"
            }
        },
        "DisassociateWhenNotFound": {
            "target": "com.amazonaws.licensemanager#BoxBoolean",
            "traits": {
                "smithy.api#documentation": "<p>When true, disassociates a resource when software is
uninstalled.</p>"
            }
        }
    },
    "traits":
{
        "smithy.api#input": {}
    }
  },
  "com.amazonaws.licensemanager#UpdateLicenseConfigurationResponse": {
    "type": "structure",
    "members": {},
    "traits": {
      "smithy.api#output": {}
    }
  },
  "com.amazonaws.licensemanager#UpdateLicenseManagerReportGenerator": {
    "type": "operation",
    "input": {
      "target": "com.amazonaws.licensemanager#UpdateLicenseManagerReportGeneratorRequest"
    },
    "output": {
      "target": "com.amazonaws.licensemanager#UpdateLicenseManagerReportGeneratorResponse"
    },
    "errors": [
      {
        "target": "com.amazonaws.licensemanager#AccessDeniedException"
      },
      {
        "target": "com.amazonaws.licensemanager#AuthorizationException"
      },
      {
        "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
       },
      {
        "target": "com.amazonaws.licensemanager#RateLimitExceededException"
      },
      {
        "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
      },
```

```
            {
               "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
            },
            {
               "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
               "target": "com.amazonaws.licensemanager#ValidationException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Updates a report generator.</p>\n         <p>After you make changes to a report generator, it starts generating new reports within 60 minutes of being updated.</p>"
         }
      },
      "com.amazonaws.licensemanager#UpdateLicenseManagerReportGeneratorRequest": {
         "type": "structure",
         "members": {
            "LicenseManagerReportGeneratorArn": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the report generator to update.</p>",
                  "smithy.api#required": {}
               }
            },
            "ReportGeneratorName": {
               "target": "com.amazonaws.licensemanager#ReportGeneratorName",
               "traits": {
                  "smithy.api#documentation": "<p>Name of the report generator.</p>",
                  "smithy.api#required": {}
               }
            },
            "Type": {
               "target": "com.amazonaws.licensemanager#ReportTypeList",
               "traits": {
                  "smithy.api#documentation": "<p>Type of reports to generate. The following report types are supported:</p>\n         <ul>\n            <li>\n               <p>License configuration report - Reports the number and details of consumed licenses for a license configuration.</p>\n            </li>\n            <li>\n               <p>Resource report - Reports the tracked licenses and resource consumption for a license configuration.</p>\n            </li>\n         </ul>",
                  "smithy.api#required": {}
               }
            },
            "ReportContext": {
               "target": "com.amazonaws.licensemanager#ReportContext",
               "traits": {
```

```
                "smithy.api#documentation": "<p>The report context.</p>",
                "smithy.api#required": {}
              }
            },
            "ReportFrequency": {
              "target": "com.amazonaws.licensemanager#ReportFrequency",
              "traits":
{
                "smithy.api#documentation": "<p>Frequency by which reports are generated.</p>",
                "smithy.api#required": {}
              }
            },
            "ClientToken": {
              "target": "com.amazonaws.licensemanager#ClientRequestToken",
              "traits": {
                "smithy.api#documentation": "<p>Unique, case-sensitive identifier that you provide to ensure the
idempotency of the request.</p>",
                "smithy.api#required": {}
              }
            },
            "Description": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Description of the report generator.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#input": {}
          }
        },
        "com.amazonaws.licensemanager#UpdateLicenseManagerReportGeneratorResponse":
{
          "type": "structure",
          "members": {},
          "traits": {
            "smithy.api#output": {}
          }
        },
        "com.amazonaws.licensemanager#UpdateLicenseSpecificationsForResource": {
          "type": "operation",
          "input": {
            "target": "com.amazonaws.licensemanager#UpdateLicenseSpecificationsForResourceRequest"
          },
          "output": {
            "target": "com.amazonaws.licensemanager#UpdateLicenseSpecificationsForResourceResponse"
          },
          "errors": [
```

```
            {
               "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
               "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
               "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },

            {
               "target": "com.amazonaws.licensemanager#InvalidResourceStateException"
            },
            {
               "target": "com.amazonaws.licensemanager#LicenseUsageException"
            },
            {
               "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
               "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Adds or removes the specified license configurations for the specified
Amazon Web Services resource.</p>\n         <p>You can update the license specifications of AMIs, instances, and
hosts.\n         You cannot update the license specifications for launch templates and CloudFormation templates, \n
 as they send license configurations to the operation that creates the resource.</p>"
         }
      },

      "com.amazonaws.licensemanager#UpdateLicenseSpecificationsForResourceRequest": {
         "type": "structure",
         "members": {
            "ResourceArn": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the Amazon Web Services
resource.</p>",
                  "smithy.api#required": {}
               }
            },
            "AddLicenseSpecifications": {
               "target": "com.amazonaws.licensemanager#LicenseSpecifications",
               "traits": {
                  "smithy.api#documentation": "<p>ARNs of the license configurations to add.</p>"
               }
            },
```

```
            "RemoveLicenseSpecifications": {
                "target": "com.amazonaws.licensemanager#LicenseSpecifications",
                "traits": {
                    "smithy.api#documentation":
"<p>ARNs of the license configurations to remove.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#UpdateLicenseSpecificationsForResourceResponse": {
        "type": "structure",
        "members": {},
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#UpdateServiceSettings": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#UpdateServiceSettingsRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#UpdateServiceSettingsResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
             },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Updates License Manager settings for the current Region.</p>"
        }
    },
```

```
    "com.amazonaws.licensemanager#UpdateServiceSettingsRequest": {
      "type": "structure",
      "members": {
        "S3BucketArn": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the Amazon S3 bucket where
the License
 Manager information is stored.</p>"
          }
        },
        "SnsTopicArn": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the Amazon SNS topic used
for License Manager alerts.</p>"
          }
        },
        "OrganizationConfiguration": {
          "target": "com.amazonaws.licensemanager#OrganizationConfiguration",
          "traits": {
            "smithy.api#documentation": "<p>Enables integration with Organizations for cross-account
discovery.</p>"
          }
        },
        "EnableCrossAccountsDiscovery": {
          "target": "com.amazonaws.licensemanager#BoxBoolean",
          "traits": {
            "smithy.api#documentation": "<p>Activates cross-account discovery.</p>"

      }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#UpdateServiceSettingsResponse": {
      "type": "structure",
      "members": {},
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanager#UsageOperation": {
      "type": "string",
      "traits": {
        "smithy.api#length": {
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            "min": 0,
            "max": 50
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        }
      },
      "com.amazonaws.licensemanager#ValidationException": {
        "type": "structure",
        "members": {
          "Message": {
            "target": "com.amazonaws.licensemanager#Message"
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>The provided input is not valid. Try your request again.</p>",

       "smithy.api#error": "client",
          "smithy.api#httpError": 400
        }
      }
    }
}
```


1.396 kr 1.1.8

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1.398 inf 0.9.1

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1.399 pycurl 7.45.2

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1.406 jfreechart 1.0.13

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1.407 validator 10.19.0

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1.408 pyproject-hooks 1.0.0

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1.409 go-shellwords 1.0.12

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1.410 grpclib 0.4.5

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1.411 go-retryablehttp 0.7.5

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1.413 tylerb-graceful 1.2.15

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1.415 python-pip 23.0.1

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file (certdata.txt). This file can be found in the mozilla source tree:
https://hg.mozilla.org/mozilla-central/file/tip/security/nss/lib/ckfw/builtins/certdata.txt
It contains the certificates in PEM format and therefore
can be directly used with curl / libcurl / php_curl, or with
an Apache+mod_ssl webserver for SSL client authentication.
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A. HISTORY OF THE SOFTWARE

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Python was created in the early 1990s by Guido van Rossum at Stichting Mathematisch Centrum (CWI, see http://www.cwi.nl) in the Netherlands as a successor of a language called ABC. Guido remains Python's principal author, although it includes many contributions from others.

In 1995, Guido continued his work on Python at the Corporation for National Research Initiatives (CNRI, see http://www.cnri.reston.va.us) in Reston, Virginia where he released several versions of the software.

In May 2000, Guido and the Python core development team moved to BeOpen.com to form the BeOpen PythonLabs team. In October of the same year, the PythonLabs team moved to Digital Creations (now Zope Corporation, see http://www.zope.com). In 2001, the Python Software Foundation (PSF, see http://www.python.org/psf/) was formed, a non-profit organization created specifically to own Python-related Intellectual Property. Zope Corporation is a sponsoring member of the PSF.

All Python releases are Open Source (see http://www.opensource.org for the Open Source Definition). Historically, most, but not all, Python releases have also been GPL-compatible; the table below summarizes the various releases.

Release	Derived from	Year	Owner	GPL-compatible? (1)
0.9.0 thru 1.2		1991-1995	CWI	yes
1.3 thru 1.5.2	1.2	1995-1999	CNRI	yes
1.6	1.5.2	2000	CNRI	no
2.0	1.6	2000	BeOpen.com	no
1.6.1	1.6	2001	CNRI	yes (2)
2.1	2.0+1.6.1	2001	PSF	no
2.0.1	2.0+1.6.1	2001	PSF	yes
2.1.1	2.1+2.0.1	2001	PSF	yes
2.2	2.1.1	2001	PSF	yes
2.1.2	2.1.1	2002	PSF	yes
2.1.3	2.1.2	2002	PSF	yes
2.2.1	2.2	2002	PSF	yes
2.2.2	2.2.1	2002	PSF	yes
2.2.3	2.2.2	2003	PSF	yes
2.3	2.2.2	2002-2003	PSF	yes

2.3.1	2.3	2002-2003	PSF	yes
2.3.2	2.3.1	2002-2003	PSF	yes
2.3.3	2.3.2	2002-2003	PSF	yes
2.3.4	2.3.3	2004	PSF	yes
2.3.5	2.3.4	2005	PSF	yes
2.4	2.3	2004	PSF	yes
2.4.1	2.4	2005	PSF	yes
2.4.2	2.4.1	2005	PSF	yes
2.4.3	2.4.2	2006	PSF	yes
2.4.4	2.4.3	2006	PSF	yes
2.5	2.4	2006	PSF	yes
2.5.1	2.5	2007	PSF	yes
2.5.2	2.5.1	2008	PSF	yes
2.5.3	2.5.2	2008	PSF	yes
2.6	2.5	2008	PSF	yes
2.6.1	2.6	2008	PSF	yes
2.6.2	2.6.1	2009	PSF	yes
2.6.3	2.6.2	2009	PSF	yes
2.6.4	2.6.3	2009	PSF	yes
2.6.5	2.6.4	2010	PSF	yes
3.0	2.6	2008	PSF	yes
3.0.1	3.0	2009	PSF	yes
3.1	3.0.1	2009	PSF	yes
3.1.1	3.1	2009	PSF	yes
3.1.2	3.1	2010	PSF	yes
3.2	3.1	2010	PSF	yes

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(2) According to Richard Stallman, 1.6.1 is not GPL-compatible, because its license has a choice of law clause. According to CNRI, however, Stallman's lawyer has told CNRI's lawyer that 1.6.1 is "not incompatible" with the GPL.

Thanks to the many outside volunteers who have worked under Guido's direction to make these releases possible.

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A. HISTORY OF THE SOFTWARE
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Python was created in the early 1990s by Guido van Rossum at Stichting
Mathematisch Centrum (CWI, see http://www.cwi.nl) in the Netherlands
as a successor of a language called ABC. Guido remains Python's
principal author, although it includes many contributions from others.

In 1995, Guido continued his work on Python at the Corporation for
National Research Initiatives (CNRI, see http://www.cnri.reston.va.us)
in Reston, Virginia where he released several versions of the
software.

In May 2000, Guido and the Python core development team moved to
BeOpen.com to form the BeOpen PythonLabs team. In October of the same
year, the PythonLabs team moved to Digital Creations, which became
Zope Corporation. In 2001, the Python Software Foundation (PSF, see
https://www.python.org/psf/) was formed, a non-profit organization
created specifically to own Python-related Intellectual Property.
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Release	Derived from	Year	Owner	GPL-compatible? (1)
0.9.0 thru 1.2		1991-1995	CWI	yes
1.3 thru 1.5.2	1.2	1995-1999	CNRI	yes
1.6	1.5.2	2000	CNRI	no
2.0	1.6	2000	BeOpen.com	no

1.6.1	1.6	2001	CNRI	yes (2)
2.1	2.0+1.6.1	2001	PSF	no
2.0.1	2.0+1.6.1	2001	PSF	yes
2.1.1	2.1+2.0.1	2001	PSF	yes
2.1.2	2.1.1	2002	PSF	yes
2.1.3	2.1.2	2002	PSF	yes
2.2 and above	2.1.1	2001-now		
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Thanks to the many outside volunteers who have worked under Guido's direction to make these releases possible.

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Section 6 states terms for distribution of such executables.

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the work with the complete corresponding
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1.416 richardlehane-msoleps 1.0.3

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1.417 go-jose 3.0.3

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That's all there is to it!

1.420 aws-sdk-go-v2-service-internal-s3shared 1.17.15

1.420.1 Available under license :

name: License Scan

on: [pull_request]

jobs:
licensescan:

```
  name: License Scan
  runs-on: ubuntu-latest
  strategy:
    matrix:
      python-version: [3.9]

  steps:
    - name: Checkout target
      uses: actions/checkout@v2
      with:
        path: sdkbase
        ref: ${{ github.base_ref }}
    - name: Checkout this ref
      uses: actions/checkout@v2
      with:
        path: new-ref
        fetch-depth: 0
    - name: Get Diff
      run: git --git-dir ./new-ref/.git diff --name-only --diff-filter=ACMRT ${{ github.event.pull_request.base.sha }}
${{ github.sha }} > refDiffFiles.txt
    - name: Get Target Files
      run: git --git-dir ./sdkbase/.git ls-files | grep -xf refDiffFiles.txt - > targetFiles.txt
    - name: Checkout scancode
      uses: actions/checkout@v2
      with:
        repository: nexB/scancode-toolkit
        path: scancode-toolkit
        fetch-depth: 1
    - name: Set up Python ${{ matrix.python-version }}
       uses: actions/setup-python@v2
      with:
        python-version: ${{ matrix.python-version }}
    # ScanCode
    - name: Self-configure scancode
      working-directory: ./scancode-toolkit
      run: ./scancode --help
    - name: Run Scan code on target
      run: cat targetFiles.txt | while read filename; do echo ./sdkbase/$filename; done | xargs ./scancode-
toolkit/scancode -l -n 30 --json-pp - | grep short_name | sort | uniq >> old-licenses.txt
    - name: Run Scan code on pr ref
      run: cat refDiffFiles.txt | while read filename; do echo ./new-ref/$filename; done | xargs ./scancode-
toolkit/scancode -l -n 30 --json-pp - | grep short_name | sort | uniq >> new-licenses.txt
    # compare
    - name: License test
      run: if ! cmp old-licenses.txt new-licenses.txt; then echo "Licenses differ! Failing."; exit -1; else echo "Licenses
are the same. Success."; exit 0; fi
ListLicenses
 Initialize stack step
```

RegisterServiceMetadata
legacyEndpointContextSetter
SetLogger
Serialize stack step
setOperationInput
ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
UserAgent
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
RecordResponseTiming
RequestResponseLogger


```
{
  "smithy": "2.0",
  "shapes": {
    "com.amazonaws.licensemanagerlinuxsubscriptions#BoxInteger": {
      "type": "integer"
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#BoxLong": {
      "type": "long"
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#Filter": {
      "type": "structure",
      "members": {
        "Name": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The type of name to filter by.</p>"
          }
```

```
            },
            "Values": {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringList",
               "traits": {
                  "smithy.api#documentation": "<p>One or more values for the name to filter by.</p>"
               }
            },
            "Operator": {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Operator",
                "traits": {
                  "smithy.api#documentation": "<p>An operator for filtering results.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#documentation": "<p>A filter object that is used to return more specific results from a describe
operation.\n      Filters can be used to match a set of resources by specific criteria.</p>"
         }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#FilterList": {
         "type": "list",
         "member": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Filter"
         }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettings": {
         "type": "operation",
         "input": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettingsRequest"
         },
         "output": {

           "target": "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettingsResponse"
         },
         "errors": [
            {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
            },
            {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
            },
            {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Lists the Linux subscriptions service settings.</p>",
            "smithy.api#http": {
```

```
            "code": 200,
            "method": "POST",
            "uri": "/subscription/GetServiceSettings"
          },
          "smithy.api#idempotent": {}
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettingsRequest":
{
        "type": "structure",
        "members": {}
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettingsResponse": {
        "type": "structure",
        "members": {
          "LinuxSubscriptionsDiscovery": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscovery",
            "traits": {
              "smithy.api#documentation": "<p>Lists if discovery has been enabled for Linux subscriptions.</p>"
            }
          },
          "LinuxSubscriptionsDiscoverySettings": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscoverySettings",
            "traits": {
              "smithy.api#documentation": "<p>Lists the settings defined for Linux subscriptions discovery. The
settings include if\n      Organizations integration has been enabled, and
 which Regions data will be aggregated from.</p>"
            }
          },
          "Status": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Status",
            "traits": {
              "smithy.api#documentation": "<p>Indicates the status of Linux subscriptions settings being
applied.</p>"
            }
          },
          "StatusMessage": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringMap",
            "traits": {
              "smithy.api#documentation": "<p>A message which details the Linux subscriptions service settings
current status.</p>"
            }
          },
          "HomeRegions": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringList",
            "traits": {
              "smithy.api#documentation": "<p>The Region in which License Manager displays
```

```
the aggregated data for Linux\n      subscriptions.</p>"
                }
            }
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#Instance": {
        "type": "structure",
        "members": {
            "AmiId": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The AMI ID used to launch the instance.</p>"
                }
            },
            "InstanceID": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The instance ID of the resource.</p>"
                }
            },
            "InstanceType": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The instance type of the resource.</p>"
                }

        },
            "AccountID": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The account ID which owns the instance.</p>"
                }
            },
            "Status": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The status of the instance.</p>"
                }
            },
            "Region": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The Region the instance is running in.</p>"
                }
            },
            "UsageOperation": {
                "target": "smithy.api#String",
                "traits": {
```

```
                "smithy.api#documentation": "<p>The usage operation of the instance. For more information, see For more information, see\n        <a href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/linux-subscriptions-usage-operation.html\">Usage\n        operation values</a> in the <i>License Manager User Guide</i>.</p>"
              }
            },
            "ProductCode": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ProductCodeList",
              "traits": {
                "smithy.api#documentation": "<p>The product code for the instance. For more information, see <a href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/linux-subscriptions-usage-operation.html\">Usage\n        operation values</a> in the <i>License Manager User Guide</i> .</p>"
              }
            },
            "LastUpdatedTime": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The time in which the last discovery updated the instance details.</p>"
              }
            },
            "SubscriptionName": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The name of the subscription being used by the instance.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>Details discovered information about a running instance using Linux subscriptions.</p>"
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#InstanceList": {
          "type": "list",
          "member": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Instance"
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException": {
          "type": "structure",
          "members": {
            "message": {
              "target": "smithy.api#String"
             }
          },
          "traits": {
            "smithy.api#documentation": "<p>An exception occurred with the service.</p>",
```

```
            "smithy.api#error": "server"
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#LicenseManagerLinuxSubscriptions": {
        "type": "service",
        "version": "2018-05-10",
        "operations": [
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettings"
            },
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstances"
            },
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptions"
            },
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettings"
            }
        ],

    "traits": {
            "aws.api#service": {
                "sdkId": "License Manager Linux Subscriptions",
                "arnNamespace": "license-manager-linux-subscriptions",
                "cloudTrailEventSource": "license-manager-linux-subscriptions.amazonaws.com"
            },
            "aws.auth#sigv4": {
                "name": "license-manager-linux-subscriptions"
            },
            "aws.protocols#restJson1": {},
            "smithy.api#cors": {
                "additionalAllowedHeaders": [
                    "*",
                    "content-type",
                    "x-amz-content-sha256",
                    "x-amz-user-agent",
                    "x-amzn-platform-id",
                    "x-amzn-trace-id",
                    "content-length",
                    "x-api-key",
                    "authorization",
                    "x-amz-date",

"x-amz-security-token",
                    "Access-Control-Allow-Headers",
                    "Access-Control-Allow-Methods",
                    "Access-Control-Allow-Origin"
```

```
            ],
            "additionalExposedHeaders": [
               "x-amzn-errortype",
               "x-amzn-requestid",
               "x-amzn-trace-id"
            ]
         },
         "smithy.api#documentation": "<p>With License Manager, you can discover and track your commercial Linux subscriptions on running\n      Amazon EC2 instances.</p>",
         "smithy.api#title": "AWS License Manager Linux Subscriptions",
         "smithy.rules#endpointRuleSet": {
            "version": "1.0",
            "parameters": {
               "Region": {
                  "builtIn": "AWS::Region",
                  "required": false,
                  "documentation": "The
 AWS region used to dispatch the request.",
                  "type": "String"
               },
               "UseDualStack": {
                  "builtIn": "AWS::UseDualStack",
                  "required": true,
                  "default": false,
                  "documentation": "When true, use the dual-stack endpoint. If the configured endpoint does not support dual-stack, dispatching the request MAY return an error.",
                  "type": "Boolean"
               },
               "UseFIPS": {
                  "builtIn": "AWS::UseFIPS",
                  "required": true,
                  "default": false,
                  "documentation": "When true, send this request to the FIPS-compliant regional endpoint. If the configured endpoint does not have a FIPS compliant endpoint, dispatching the request will return an error.",

                "type": "Boolean"
               },
               "Endpoint": {
                  "builtIn": "SDK::Endpoint",
                  "required": false,
                  "documentation": "Override the endpoint used to send this request",
                  "type": "String"
               }
            },
            "rules": [
               {
                  "conditions": [
                     {
```

```
        "fn": "isSet",
        "argv": [
          {
            "ref": "Endpoint"
          }
        ]
      }
    ],
    "type": "tree",
    "rules": [
      {

      "conditions": [
            {
              "fn": "booleanEquals",
              "argv": [
                {
                  "ref": "UseFIPS"
                },
                true
              ]
            }
          ],
          "error": "Invalid Configuration: FIPS and custom endpoint are not supported",
          "type": "error"
      },
      {
          "conditions": [],
          "type": "tree",
          "rules": [
            {

          "conditions": [
                    {
                      "fn": "booleanEquals",
                      "argv": [
                        {
                          "ref": "UseDualStack"
                        },
                        true
                      ]
                    }
                  ],
                  "error": "Invalid Configuration: Dualstack and custom endpoint are not supported",
                  "type": "error"
            },
            {
              "conditions": [],
```

```
                "endpoint": {
                                "url": {
                                   "ref": "Endpoint"
                                },
                                "properties": {},
                                "headers": {}
                             },
                             "type": "endpoint"
                          }
                       ]
                    }
                 ]
              },
              {
                 "conditions": [],
                 "type": "tree",
                 "rules": [
                    {
                       "conditions": [
                          {
                             "fn": "isSet",

        "argv": [
                                {
                                   "ref": "Region"
                                }
                             ]
                          }
                       ],
                       "type": "tree",
                       "rules": [
                          {
                             "conditions": [
                                {
                                   "fn": "aws.partition",
                                   "argv": [
                                      {
                                         "ref": "Region"
                                      }
                                   ],

    "assign": "PartitionResult"
                                }
                             ],
                             "type": "tree",
                             "rules": [
                                {
```

```
                "conditions": [
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                        "fn": "booleanEquals",
                        "argv": [
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                                "ref": "UseFIPS"
                            },
                            true
                        ]
                    },

{
                        "fn": "booleanEquals",
                        "argv": [
                            {
                                "ref": "UseDualStack"
                            },
                            true
                        ]
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                "rules": [
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                        "conditions": [
                            {

                       "fn": "booleanEquals",
                            "argv": [
                                true,
                                {
                                    "fn": "getAttr",
                                    "argv": [
                                        {
                                            "ref": "PartitionResult"
                                        },
                                        "supportsFIPS"
                                    ]

}
                            ]
                        },
                        {
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                            "argv": [
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                                {
                                    "fn": "getAttr",
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```
                                    "argv": [
                                        {
                                            "ref": "PartitionResult"
                                        },

                                    "supportsDualStack"
                                        ]
                                    }
                                ]
                            }
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                        "type": "tree",
                        "rules": [
                            {
                                "conditions": [],
                                "type": "tree",
                                "rules": [
                                    {

                        "conditions": [],
                                        "endpoint": {
                                            "url": "https://license-manager-linux-subscriptions-
fips.{Region}.{PartitionResult#dualStackDnsSuffix}",
                                            "properties": {},
                                            "headers": {}
                                        },
                                        "type": "endpoint"
                                    }
                                ]
                            }
                        ]

                },
                    {
                        "conditions": [],
                        "error": "FIPS and DualStack are enabled, but this partition does not support
one or both",
                        "type": "error"
                    }
                ]
            },
            {
                "conditions": [
                    {
                        "fn": "booleanEquals",
                        "argv": [
                            {
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                "ref": "UseFIPS"
                            },
                            true
                        ]
                    }
                ],
                "type": "tree",
                "rules": [
                    {
                        "conditions": [
                            {
                                "fn": "booleanEquals",
                                "argv": [
                                    true,

{
                                        "fn": "getAttr",
                                        "argv": [
                                            {
                                                "ref": "PartitionResult"
                                            },
                                            "supportsFIPS"
                                        ]
                                    }
                                ]
                            }
                        ],
                        "type": "tree",

                    "rules": [
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                                "conditions": [],
                                "type": "tree",
                                "rules": [
                                    {
                                        "conditions": [],
                                        "endpoint": {
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fips.{Region}.{PartitionResult#dnsSuffix}",
                                            "properties": {},
                                            "headers": {}

                                        },
                                        "type": "endpoint"
                                    }
                                ]
                            }
                        ]
```

```
                },
                {
                  "conditions": [],
                  "error": "FIPS is enabled but this partition does not support FIPS",
                  "type": "error"
                }
              ]

},
              {
                "conditions": [
                  {
                    "fn": "booleanEquals",
                    "argv": [
                      {
                        "ref": "UseDualStack"
                      },
                      true
                    ]
                  }
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                "type": "tree",
                "rules": [
                  {

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                        {
                          "fn": "booleanEquals",
                          "argv": [
                            true,
                            {
                              "fn": "getAttr",
                              "argv": [
                                {
                                  "ref": "PartitionResult"
                                },
                                "supportsDualStack"
                              ]
                            }
                          ]
                        }
                      ],
                      "type": "tree",
                      "rules": [
                        {
                          "conditions": [],
                          "type": "tree",
                          "rules": [
```

```
                                        {
                                            "conditions": [],

                                        "endpoint": {
                                                "url": "https://license-manager-linux-
subscriptions.{Region}.{PartitionResult#dualStackDnsSuffix}",
                                                "properties": {},
                                                "headers": {}
                                            },
                                            "type": "endpoint"
                                        }
                                    ]
                                }
                            ]
                        },

        {
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                                "error": "DualStack is enabled but this partition does not support DualStack",
                                "type": "error"
                            }
                        ]
                    },
                    {
                        "conditions": [],
                        "type": "tree",
                        "rules": [
                            {
                                "conditions": [],
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                                    "url":
"https://license-manager-linux-subscriptions.{Region}.{PartitionResult#dnsSuffix}",
                                    "properties": {},
                                    "headers": {}
                                },
                                "type": "endpoint"
                            }
                        ]
                    }
                ]
            }
        ]
    },
    {
        "conditions": [],
        "error": "Invalid Configuration: Missing Region",
        "type": "error"
    }
```

```
            ]
          }
        ]
      },
      "smithy.rules#endpointTests": {
        "testCases": [
          {
            "documentation": "For region us-east-1 with FIPS enabled and DualStack enabled",
            "expect": {
              "endpoint": {
                "url": "https://license-manager-linux-subscriptions-fips.us-east-1.api.aws"
              }
            },
            "params": {
              "Region": "us-east-1",
              "UseFIPS": true,
              "UseDualStack": true
            }
          },
          {
            "documentation": "For region us-east-1 with FIPS enabled and DualStack disabled",
            "expect": {

"endpoint": {
                "url": "https://license-manager-linux-subscriptions-fips.us-east-1.amazonaws.com"
              }
            },
            "params": {
              "Region": "us-east-1",
              "UseFIPS": true,
              "UseDualStack": false
            }
          },
          {
            "documentation": "For region us-east-1 with FIPS disabled and DualStack enabled",
            "expect": {
              "endpoint": {
                "url": "https://license-manager-linux-subscriptions.us-east-1.api.aws"
              }
            },
            "params": {
              "Region": "us-east-1",
              "UseFIPS": false,
               "UseDualStack": true
            }
          },
          {
            "documentation": "For region us-east-1 with FIPS disabled and DualStack disabled",
```

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    "expect": {
      "endpoint": {
        "url": "https://license-manager-linux-subscriptions.us-east-1.amazonaws.com"
      }
    },
    "params": {
      "Region": "us-east-1",
      "UseFIPS": false,
      "UseDualStack": false
    }
  },
  {
    "documentation": "For region cn-north-1 with FIPS enabled and DualStack enabled",
    "expect": {
      "endpoint": {

    "url": "https://license-manager-linux-subscriptions-fips.cn-north-1.api.amazonwebservices.com.cn"
      }
    },
    "params": {
      "Region": "cn-north-1",
      "UseFIPS": true,
      "UseDualStack": true
    }
  },
  {
    "documentation": "For region cn-north-1 with FIPS enabled and DualStack disabled",
    "expect": {
      "endpoint": {
        "url": "https://license-manager-linux-subscriptions-fips.cn-north-1.amazonaws.com.cn"
      }
    },
    "params": {
      "Region": "cn-north-1",
      "UseFIPS": true,
       "UseDualStack": false
    }
  },
  {
    "documentation": "For region cn-north-1 with FIPS disabled and DualStack enabled",
    "expect": {
      "endpoint": {
        "url": "https://license-manager-linux-subscriptions.cn-north-1.api.amazonwebservices.com.cn"
      }
    },
    "params": {
      "Region": "cn-north-1",
      "UseFIPS": false,
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            "UseDualStack": true
          }
        },
        {
          "documentation": "For region cn-north-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint":
{
              "url": "https://license-manager-linux-subscriptions.cn-north-1.amazonaws.com.cn"
            }
          },
          "params": {
            "Region": "cn-north-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack enabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-linux-subscriptions-fips.us-gov-east-1.api.aws"
            }
          },
          "params": {
            "Region": "us-gov-east-1",
            "UseFIPS": true,
             "UseDualStack": true
          }
        },
        {
          "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-linux-subscriptions-fips.us-gov-east-1.amazonaws.com"
            }
          },
          "params": {
            "Region": "us-gov-east-1",
            "UseFIPS": true,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-gov-east-1 with FIPS disabled and DualStack enabled",
          "expect": {
            "endpoint":
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{
                    "url": "https://license-manager-linux-subscriptions.us-gov-east-1.api.aws"
                }
            },
            "params": {
                "Region": "us-gov-east-1",
                "UseFIPS": false,
                "UseDualStack": true
            }
        },
        {
            "documentation": "For region us-gov-east-1 with FIPS disabled and DualStack disabled",
            "expect": {
                "endpoint": {
                    "url": "https://license-manager-linux-subscriptions.us-gov-east-1.amazonaws.com"
                }
            },
            "params": {
                "Region": "us-gov-east-1",
                "UseFIPS": false,
                 "UseDualStack": false
            }
        },
        {
            "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack enabled",
            "expect": {
                "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
            },
            "params": {
                "Region": "us-iso-east-1",
                "UseFIPS": true,
                "UseDualStack": true
            }
        },
        {
            "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack disabled",
            "expect": {
                "endpoint": {
                    "url": "https://license-manager-linux-subscriptions-fips.us-iso-east-1.c2s.ic.gov"
                 }
            },
            "params": {
                "Region": "us-iso-east-1",
                "UseFIPS": true,
                "UseDualStack": false
            }
        },
        {
```

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      "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack enabled",
      "expect": {
        "error": "DualStack is enabled but this partition does not support DualStack"
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      "params": {
        "Region": "us-iso-east-1",
        "UseFIPS": false,
        "UseDualStack": true
      }
    },
    {

"documentation": "For region us-iso-east-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-linux-subscriptions.us-iso-east-1.c2s.ic.gov"
        }
      },
      "params": {
        "Region": "us-iso-east-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack enabled",
      "expect": {
        "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
      },
      "params": {

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        "UseDualStack": true
      }
    },
    {
      "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-linux-subscriptions-fips.us-isob-east-1.sc2s.sgov.gov"
        }
      },
      "params": {
        "Region": "us-isob-east-1",
        "UseFIPS": true,
        "UseDualStack": false
      }
```

```
        },
        {
          "documentation": "For region us-isob-east-1 with FIPS disabled
and DualStack enabled",
          "expect": {
            "error": "DualStack is enabled but this partition does not support DualStack"
          },
          "params": {
            "Region": "us-isob-east-1",
            "UseFIPS": false,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
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            }
          },
          "params": {
            "Region": "us-isob-east-1",

      "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For custom endpoint with region set and fips disabled and dualstack disabled",
          "expect": {
            "endpoint": {
              "url": "https://example.com"
            }
          },
          "params": {
            "Region": "us-east-1",
            "UseFIPS": false,
            "UseDualStack": false,
            "Endpoint": "https://example.com"
          }
        },
        {
          "documentation": "For custom endpoint with region not set and fips disabled and dualstack
disabled",

        "expect": {
            "endpoint": {
              "url": "https://example.com"
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```
                }
            },
            "params": {
              "UseFIPS": false,
              "UseDualStack": false,
              "Endpoint": "https://example.com"
            }
          },
          {
            "documentation": "For custom endpoint with fips enabled and dualstack disabled",
            "expect": {
              "error": "Invalid Configuration: FIPS and custom endpoint are not supported"
            },
            "params": {
              "Region": "us-east-1",
              "UseFIPS": true,
              "UseDualStack": false,

      "Endpoint": "https://example.com"
            }
          },
          {
            "documentation": "For custom endpoint with fips disabled and dualstack enabled",
            "expect": {
              "error": "Invalid Configuration: Dualstack and custom endpoint are not supported"
            },
            "params": {
              "Region": "us-east-1",
              "UseFIPS": false,
              "UseDualStack": true,
              "Endpoint": "https://example.com"
            }
          },
          {
            "documentation": "Missing region",
            "expect": {
              "error": "Invalid Configuration: Missing Region"
            }

    }
        ],
        "version": "1.0"
      }
    }
  },
  "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscovery": {
    "type": "string",
    "traits": {
```

```
            "smithy.api#enum": [
               {
                  "name": "Enabled",
                  "value": "Enabled",
                  "documentation": "Enabled LinuxSubscriptionsDiscovery"
               },
               {
                  "name": "Disabled",
                  "value": "Disabled",
                  "documentation": "Disabled LinuxSubscriptionsDiscovery"
               }
            ]
         }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscoverySettings": {
         "type": "structure",
         "members": {
            "SourceRegions": {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringList",
                "traits": {
                  "smithy.api#documentation": "<p>The Regions in which to discover data for Linux
subscriptions.</p>",
                  "smithy.api#required": {}
               }
            },
            "OrganizationIntegration": {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#OrganizationIntegration",
               "traits": {
                  "smithy.api#documentation": "<p>Details if you have enabled resource discovery across your
accounts in Organizations.</p>",
                  "smithy.api#required": {}
               }
            }
         },
         "traits": {
            "smithy.api#documentation": "<p>Lists the settings defined for discovering Linux subscriptions.</p>"
         }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstances": {
         "type":
 "operation",
         "input": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstancesRequest"
         },
         "output": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstancesResponse"
         },
         "errors": [
```

```
            {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
            },
            {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
            },
            {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Lists the running Amazon EC2 instances that were discovered with commercial Linux\n      subscriptions.</p>",
            "smithy.api#http": {

        "code": 200,
               "method": "POST",
               "uri": "/subscription/ListLinuxSubscriptionInstances"
            },
            "smithy.api#idempotent": {},
            "smithy.api#paginated": {
               "inputToken": "NextToken",
               "outputToken": "NextToken",
               "pageSize": "MaxResults",
               "items": "Instances"
            }
         }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstancesRequest": {
         "type": "structure",
         "members": {
            "Filters": {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#FilterList",
               "traits": {
                  "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those that match one or\n      more sets of key-value pairs that you specify. For example, you can filter by
 the name of\n      <code>AmiID</code> with an optional operator to see subscriptions that match, partially\n match, or don't match a certain Amazon Machine Image (AMI) ID.</p>\n      <p>The valid names for this filter are:</p>\n      <ul>\n      <li>\n      <p>\n      <code>AmiID</code>\n      </p>\n      </li>\n      <li>\n      <p>\n      <code>InstanceID</code>\n      </p>\n      </li>\n      <li>\n      <p>\n      <code>AccountID</code>\n      </p>\n      </li>\n      <li>\n      <p>\n      <code>Status</code>\n      </p>\n      </li>\n      <li>\n      <p>\n      <code>Region</code>\n      </p>\n      </li>\n      <li>\n      <p>\n      <code>UsageOperation</code>\n      </p>\n      </li>\n      <li>\n
    <p>\n      <code>ProductCode</code>\n      </p>\n      </li>\n      <li>\n      <p>\n
     <code>InstanceType</code>\n      </p>\n      </li>\n      </ul>\n      <p>The valid Operators for this filter are:</p>\n      <ul>\n      <li>\n      <p>\n      <code>contains</code>\n      </p>\n      </li>\n      <li>\n      <p>\n      <code>equals</code>\n      </p>\n      </li>\n      <li>\n
```

```
        <p>\n                <code>Notequal</code>\n              </p>\n          </li>\n        </ul>"
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#BoxInteger",
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"

      }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>",
              "smithy.api#length": {
                "min": 1,
                "max": 16384
              }
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "NextToken length limit is half of ddb accepted limit.\nIncrease this limit if
parameters in request increases."
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstancesResponse": {
        "type": "structure",
        "members": {
          "Instances": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InstanceList",
            "traits": {
              "smithy.api#documentation":
 "<p>An array that contains instance objects.</p>"
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptions": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionsRequest"
```

```
        },
        "output": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionsResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
            },
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
             },
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists the Linux subscriptions that have been discovered. If you have linked your\n      organization, the returned results will include data aggregated across your accounts in\n Organizations.</p>",
            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/subscription/ListLinuxSubscriptions"
            },
            "smithy.api#idempotent": {},
            "smithy.api#paginated": {
                "inputToken": "NextToken",
                "outputToken": "NextToken",
                "pageSize": "MaxResults",
                "items": "Subscriptions"
            }

        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionsRequest": {
        "type": "structure",
        "members": {
            "Filters": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#FilterList",
                "traits": {
                    "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those that match one or\n      more sets of key-value pairs that you specify. For example, you can filter by the name of\n <code>Subscription</code> with an optional operator to see subscriptions that match,\n      partially match, or don't match a certain subscription's name.</p>\n      <p>The valid names for this filter are:</p>\n      <ul>\n <li>\n          <p>\n              <code>Subscription</code>\n          </p>\n      </li>\n      </ul>\n <p>The valid Operators for this filter are:</p>\n
      <ul>\n      <li>\n          <p>\n              <code>contains</code>\n          </p>\n      </li>\n <li>\n          <p>\n              <code>equals</code>\n          </p>\n      </li>\n      <li>\n          <p>\n
```

```
            <code>Notequal</code>\n            </p>\n            </li>\n        </ul>"
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#BoxInteger",
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
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          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>",
              "smithy.api#length": {

                "min": 1,
                  "max": 16384
              }
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "NextToken length limit is half of ddb accepted limit.\nIncrease this limit if
parameters in request increases."
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionsResponse": {
        "type": "structure",
        "members": {
          "Subscriptions": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionList",
            "traits": {
              "smithy.api#documentation": "<p>An array that contains subscription objects.</p>"
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for
 the next set of results.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#Operator": {
        "type": "string",
        "traits": {
          "smithy.api#enum": [
```

```
            {
              "name": "EQUAL",
              "value": "Equal",
              "documentation": "Equal operator"
            },
            {
              "name": "NOT_EQUAL",
              "value": "NotEqual",
              "documentation": "Not equal operator"
            },
            {
              "name": "CONTAINS",
              "value": "Contains",
              "documentation": "Contains operator"
            }
          ],
          "smithy.api#length": {
            "min": 1,
            "max": 20
          }
        }
      },

  "com.amazonaws.licensemanagerlinuxsubscriptions#OrganizationIntegration": {
        "type": "string",
        "traits": {
          "smithy.api#enum": [
            {
              "name": "Enabled",
              "value": "Enabled",
              "documentation": "Enabled OrganizationIntegration"
            },
            {
              "name": "Disabled",
              "value": "Disabled",
              "documentation": "Disabled OrganizationIntegration"
            }
          ]
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#ProductCodeList": {
        "type": "list",
        "member": {
          "target": "smithy.api#String"
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#Status": {
        "type": "string",
```

```
        "traits": {
            "smithy.api#enum": [

    {
                    "name": "InProgress",
                    "value": "InProgress",
                    "documentation": "InProgress status"
                },
                {
                    "name": "Completed",
                    "value": "Completed",
                    "documentation": "Completed status"
                },
                {
                    "name": "Successful",
                    "value": "Successful",
                    "documentation": "Successful status"
                },
                {
                    "name": "Failed",
                    "value": "Failed",
                    "documentation": "Failed status"
                }
            ]
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#StringList": {
        "type": "list",
        "member": {
            "target": "smithy.api#String",
            "traits":
{
                "smithy.api#length": {
                    "min": 1,
                    "max": 100
                }
            }
        },
        "traits": {
            "smithy.api#length": {
                "min": 1,
                "max": 100
            },
            "smithy.api#uniqueItems": {}
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#StringMap": {
        "type": "map",
```

```
        "key": {
            "target": "smithy.api#String"
        },
        "value": {
            "target": "smithy.api#String"
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#Subscription": {
        "type": "structure",
        "members": {
            "Name": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The name of the subscription.</p>"

        }
            },
            "Type": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The type of subscription. The type can be subscription-included with Amazon EC2, Bring Your Own\n      Subscription model (BYOS), or from the Amazon Web Services Marketplace. Certain subscriptions may use licensing from the\n      Amazon Web Services Marketplace as well as OS licensing from Amazon EC2 or BYOS.</p>"
                }
            },
            "InstanceCount": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#BoxLong",
                "traits": {
                    "smithy.api#documentation": "<p>The total amount of running instances using this subscription.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>An object which details a discovered Linux subscription.</p>"
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionList": {
        "type": "list",
        "member": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Subscription"
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException": {
        "type": "structure",
        "members": {
            "message": {
```

```
            "target": "smithy.api#String"
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>The request was denied due to request throttling.</p>",
          "smithy.api#error": "client"
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettings": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettingsRequest"
        },

      "output": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettingsResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Updates the service settings for Linux subscriptions.</p>",
          "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/subscription/UpdateServiceSettings"
          },
          "smithy.api#idempotent": {}
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettingsRequest":
{
        "type": "structure",
        "members": {
          "LinuxSubscriptionsDiscovery": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscovery",
            "traits": {
              "smithy.api#documentation": "<p>Describes if the discovery of Linux subscriptions is enabled.</p>",
              "smithy.api#required": {}
            }
```

```
            },
            "LinuxSubscriptionsDiscoverySettings": {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscoverySettings",
               "traits": {
                  "smithy.api#documentation": "<p>The settings defined for Linux subscriptions discovery. The
settings include if Organizations\n      integration has been enabled, and which Regions data will be aggregated
from.</p>",

  "smithy.api#required": {}
               }
            },
            "AllowUpdate": {
               "target": "smithy.api#Boolean",
               "traits": {
                  "smithy.api#documentation": "<p>Describes if updates are allowed to the service settings for Linux
subscriptions. If you\n      allow updates, you can aggregate Linux subscription data in more than one home
Region.</p>"
               }
            }
         }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettingsResponse": {
         "type": "structure",
         "members": {
            "LinuxSubscriptionsDiscovery": {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscovery",
               "traits": {
                  "smithy.api#documentation": "<p>Lists if discovery has been enabled for Linux subscriptions.</p>"
               }
            },

           "LinuxSubscriptionsDiscoverySettings": {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscoverySettings",
               "traits": {
                  "smithy.api#documentation": "<p>The settings defined for Linux subscriptions discovery. The
settings include if Organizations\n      integration has been enabled, and which Regions data will be aggregated
from.</p>"
               }
            },
            "Status": {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Status",
               "traits": {
                  "smithy.api#documentation": "<p>Indicates the status of Linux subscriptions settings being
applied.</p>"
               }
            },
            "StatusMessage": {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringMap",
```

```
                "traits": {
                    "smithy.api#documentation":
 "<p>A message which details the Linux subscriptions service settings current status.</p>"
                }
            },
            "HomeRegions": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringList",
                "traits": {
                    "smithy.api#documentation": "<p>The Region in which License Manager displays the aggregated
data for Linux\n      subscriptions.</p>"
                }
            }
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException": {
        "type": "structure",
        "members": {
            "message": {
                "target": "smithy.api#String"
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>The provided input is not valid. Try your request again.</p>",
            "smithy.api#error": "client"
        }
    }
  }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Checks in the specified license. Check in a license when it is no longer in use.
func (c *Client) CheckInLicense(ctx context.Context, params *CheckInLicenseInput, optFns ...func(*Options))
(*CheckInLicenseOutput, error) {
 if params == nil {
  params = &CheckInLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "CheckInLicense", params, optFns,
```

```
c.addOperationCheckInLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*CheckInLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type CheckInLicenseInput struct {

 // License consumption token.
 //
 // This member is required.
 LicenseConsumptionToken *string

 // License beneficiary.
 Beneficiary *string

 noSmithyDocumentSerde
}

type
 CheckInLicenseOutput struct {
 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationCheckInLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpCheckInLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpCheckInLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "CheckInLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
```

```
 return err
}
if err = addSetLoggerMiddleware(stack, options); err != nil {
 return err
}
if err = addClientRequestID(stack); err != nil {
 return err
}
if
err = addComputeContentLength(stack); err != nil {
 return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
 return err
}
if err = addComputePayloadSHA256(stack); err != nil {
 return err
}
if err = addRetry(stack, options); err != nil {
 return err
}
if err = addRawResponseToMetadata(stack); err != nil {
 return err
}
if err = addRecordResponseTiming(stack); err != nil {
 return err
}
if err = addClientUserAgent(stack, options); err != nil {
 return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
 return err
}
if err = addOpCheckInLicenseValidationMiddleware(stack); err != nil {
 return err
}
if err = stack.Initialize.Add(newServiceMetadataMiddleware_opCheckInLicense(options.Region),
middleware.Before); err != nil {
 return
err
}
if err = addRecursionDetection(stack); err != nil {
```

```
 return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
 return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
 return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
 return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
 return err
 }
 return nil
}

func newServiceMetadataMiddleware_opCheckInLicense(region string) *awsmiddleware.RegisterServiceMetadata
{
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:    ServiceID,
  OperationName: "CheckInLicense",
 }
}
CheckoutBorrowLicense
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
  OperationInputValidation
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
 Build stack step
  ClientRequestID
  ComputeContentLength
  UserAgent
  RecursionDetection
 Finalize stack step
  ResolveAuthScheme
  GetIdentity
  ResolveEndpointV2
  disableHTTPS
  ComputePayloadHash
  Retry
  RetryMetricsHeader
```

setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
RecordResponseTiming
RequestResponseLogger
DisassociateLicense
Initialize stack step
RegisterServiceMetadata
legacyEndpointContextSetter
SetLogger
OperationInputValidation
Serialize stack step
setOperationInput
ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
UserAgent
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
RecordResponseTiming
RequestResponseLogger
CheckoutLicense
Initialize stack step
RegisterServiceMetadata

```
 legacyEndpointContextSetter
 SetLogger
 OperationInputValidation
Serialize stack step
 setOperationInput
 ResolveEndpoint
 OperationSerializer
Build stack step
 ClientRequestID
 ComputeContentLength
 UserAgent
 RecursionDetection
Finalize stack step
 ResolveAuthScheme
 GetIdentity
 ResolveEndpointV2
 disableHTTPS
 ComputePayloadHash
 Retry
 RetryMetricsHeader
 setLegacyContextSigningOptions
 Signing
Deserialize stack step
 AddRawResponseToMetadata
 ErrorCloseResponseBody
 CloseResponseBody
 ResponseErrorWrapper
 RequestIDRetriever
 OperationDeserializer
 RecordResponseTiming
 RequestResponseLogger
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Checks out the specified license.
//
// If the account that created the license is the same that is performing the
// check out, you must specify the account as the beneficiary.
```

```
func (c *Client) CheckoutLicense(ctx context.Context, params *CheckoutLicenseInput, optFns ...func(*Options))
(*CheckoutLicenseOutput, error) {
 if params == nil {
  params = &CheckoutLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "CheckoutLicense", params, optFns,
c.addOperationCheckoutLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*CheckoutLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type CheckoutLicenseInput struct {

 //
 Checkout type.
 //
 // This member is required.
 CheckoutType types.CheckoutType

 // Unique, case-sensitive identifier that you provide to ensure the idempotency of
 // the request.
 //
 // This member is required.
 ClientToken *string

 // License entitlements.
 //
 // This member is required.
 Entitlements []types.EntitlementData

 // Key fingerprint identifying the license.
 //
 // This member is required.
 KeyFingerprint *string

 // Product SKU.
 //
 // This member is required.
 ProductSKU *string

 // License beneficiary.
 Beneficiary *string
```

```
 // Node ID.
 NodeId *string

 noSmithyDocumentSerde
}

type CheckoutLicenseOutput struct {

 // Checkout type.
 CheckoutType types.CheckoutType

 // Allowed license entitlements.
 EntitlementsAllowed []types.EntitlementData

 // Date and time at which the license checkout expires.
 Expiration *string

 // Date and time at which the license checkout is issued.
 IssuedAt *string

 // Amazon Resource Name (ARN) of the checkout license.
 LicenseArn
 *string

 // License consumption token.
 LicenseConsumptionToken *string

 // Node ID.
 NodeId *string

 // Signed token.
 SignedToken *string

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationCheckoutLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpCheckoutLicense{}, middleware.After)
 if err != nil {
  return err
 }
```

```
err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpCheckoutLicense{}, middleware.After)
if err != nil {
 return err
}
if err := addProtocolFinalizerMiddlewares(stack, options, "CheckoutLicense"); err != nil {
 return fmt.Errorf("add protocol finalizers: %v", err)
}

if err = addlegacyEndpointContextSetter(stack, options); err != nil {
 return err
}
if err = addSetLoggerMiddleware(stack,
options); err != nil {
 return err
}
if err = addClientRequestID(stack); err != nil {
 return err
}
if err = addComputeContentLength(stack); err != nil {
 return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
 return err
}
if err = addComputePayloadSHA256(stack); err != nil {
 return err
}
if err = addRetry(stack, options); err != nil {
 return err
}
if err = addRawResponseToMetadata(stack); err != nil {
 return err
}
if err = addRecordResponseTiming(stack); err != nil {
 return err
}
if err = addClientUserAgent(stack, options); err != nil {
 return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
 return err
}
```

```
 if err = addOpCheckoutLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err
 = stack.Initialize.Add(newServiceMetadataMiddleware_opCheckoutLicense(options.Region), middleware.Before);
err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opCheckoutLicense(region string) *awsmiddleware.RegisterServiceMetadata
{
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:    ServiceID,
  OperationName: "CheckoutLicense",
 }
}
AssociateLicense
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
  OperationInputValidation
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
 Build stack step
  ClientRequestID
  ComputeContentLength
  UserAgent
```

RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
RecordResponseTiming
RequestResponseLogger
CheckInLicense
Initialize stack step
RegisterServiceMetadata
legacyEndpointContextSetter
SetLogger
OperationInputValidation
Serialize stack step
setOperationInput
ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
UserAgent
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody

```
  CloseResponseBody
  ResponseErrorWrapper
  RequestIDRetriever
  OperationDeserializer
  RecordResponseTiming
  RequestResponseLogger
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Lists received licenses.
func (c *Client) ListReceivedLicenses(ctx context.Context, params *ListReceivedLicensesInput, optFns
...func(*Options)) (*ListReceivedLicensesOutput, error) {
 if params == nil {
  params = &ListReceivedLicensesInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "ListReceivedLicenses", params, optFns,
c.addOperationListReceivedLicensesMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*ListReceivedLicensesOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type ListReceivedLicensesInput struct {

 // Filters to scope the results. The following filters are supported:
 //
 //   - ProductSKU
 //
 //   - Status
 //
 //
   - Fingerprint
 //
```

```
//   - IssuerName
//
//   - Beneficiary
Filters []types.Filter

// Amazon Resource Names (ARNs) of the licenses.
LicenseArns []string

// Maximum number of results to return in a single call.
MaxResults *int32

// Token for the next set of results.
NextToken *string

noSmithyDocumentSerde
}

type ListReceivedLicensesOutput struct {

// Received license details.
Licenses []types.GrantedLicense

// Token for the next set of results.
NextToken *string

// Metadata pertaining to the operation's result.
ResultMetadata middleware.Metadata

noSmithyDocumentSerde
}

func (c *Client) addOperationListReceivedLicensesMiddlewares(stack *middleware.Stack, options Options) (err
error) {
if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
 return err
}
err = stack.Serialize.Add(&awsAwsjson11_serializeOpListReceivedLicenses{}, middleware.After)
if err != nil {
 return err
}
err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpListReceivedLicenses{},
middleware.After)
if err != nil {
 return err
}
if err := addProtocolFinalizerMiddlewares(stack, options, "ListReceivedLicenses"); err != nil {
 return fmt.Errorf("add protocol finalizers: %v", err)
}
```

```
 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err
 = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opListReceivedLicenses(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
```

```
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opListReceivedLicenses(region string)
*awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:
     ServiceID,
  OperationName: "ListReceivedLicenses",
 }
}
AWS SDK for Go
Copyright 2015 Amazon.com, Inc. or its affiliates. All Rights Reserved.
Copyright 2014-2015 Stripe, Inc.
CreateLicense
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
  OperationInputValidation
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
 Build stack step
  ClientRequestID
  ComputeContentLength
  UserAgent
  RecursionDetection
 Finalize stack step
  ResolveAuthScheme
  GetIdentity
  ResolveEndpointV2
  disableHTTPS
  ComputePayloadHash
```

Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
RecordResponseTiming
RequestResponseLogger
GetLicense
Initialize stack step
RegisterServiceMetadata
legacyEndpointContextSetter
SetLogger
OperationInputValidation
Serialize stack step
setOperationInput
ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
UserAgent
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
RecordResponseTiming
RequestResponseLogger

```
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Creates a license.
func (c *Client) CreateLicense(ctx context.Context, params *CreateLicenseInput, optFns ...func(*Options))
(*CreateLicenseOutput, error) {
 if params == nil {
  params = &CreateLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "CreateLicense", params, optFns,
c.addOperationCreateLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*CreateLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type CreateLicenseInput struct {

 // License beneficiary.
 //
 // This member is required.
 Beneficiary *string

 // Unique, case-sensitive identifier that you provide to ensure the idempotency of
 // the request.
 //
 //
 This member is required.
 ClientToken *string

 // Configuration for consumption of the license. Choose a provisional
 // configuration for workloads running with continuous connectivity. Choose a
 // borrow configuration for workloads with offline usage.
```

```
//
// This member is required.
ConsumptionConfiguration *types.ConsumptionConfiguration

// License entitlements.
//
// This member is required.
Entitlements []types.Entitlement

// Home Region for the license.
//
// This member is required.
HomeRegion *string

// License issuer.
//
// This member is required.
Issuer *types.Issuer

// License name.
//
// This member is required.
LicenseName *string

// Product name.
//
// This member is required.
ProductName *string

// Product SKU.
//
// This member is required.
ProductSKU *string

// Date and time range during which the license is valid, in ISO8601-UTC format.
//
// This member is required.
Validity *types.DatetimeRange

// Information about
the license.
LicenseMetadata []types.Metadata

noSmithyDocumentSerde
}

type CreateLicenseOutput struct {
```

```
// Amazon Resource Name (ARN) of the license.
LicenseArn *string

// License status.
Status types.LicenseStatus

// License version.
Version *string

// Metadata pertaining to the operation's result.
ResultMetadata middleware.Metadata

noSmithyDocumentSerde
}

func (c *Client) addOperationCreateLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpCreateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpCreateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "CreateLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if
 err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
```

```
 return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return
 err
 }
 if err = addOpCreateLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opCreateLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}
```

```
func newServiceMetadataMiddleware_opCreateLicense(region string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:    ServiceID,
  OperationName: "CreateLicense",
 }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Checks out the specified license for offline use.
func (c *Client) CheckoutBorrowLicense(ctx context.Context, params *CheckoutBorrowLicenseInput, optFns
...func(*Options)) (*CheckoutBorrowLicenseOutput, error) {
 if params == nil {
  params = &CheckoutBorrowLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "CheckoutBorrowLicense", params, optFns,
c.addOperationCheckoutBorrowLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*CheckoutBorrowLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type CheckoutBorrowLicenseInput struct {

 // Unique, case-sensitive identifier that you provide to ensure the idempotency of
 //
 the request.
 //
 // This member is required.
 ClientToken *string
```

```
// Digital signature method. The possible value is JSON Web Signature (JWS)
// algorithm PS384. For more information, see [RFC 7518 Digital Signature with RSASSA-PSS].
//
// [RFC 7518 Digital Signature with RSASSA-PSS]: https://tools.ietf.org/html/rfc7518#section-3.5
//
// This member is required.
DigitalSignatureMethod types.DigitalSignatureMethod

// License entitlements. Partial checkouts are not supported.
//
// This member is required.
Entitlements []types.EntitlementData

// Amazon Resource Name (ARN) of the license. The license must use the borrow
// consumption configuration.
//
// This member is required.
LicenseArn *string

// Information about constraints.
CheckoutMetadata []types.Metadata

// Node ID.
NodeId *string

noSmithyDocumentSerde
}

type CheckoutBorrowLicenseOutput struct {

// Information about constraints.
CheckoutMetadata []types.Metadata

// Allowed license entitlements.
EntitlementsAllowed
[]types.EntitlementData

// Date and time at which the license checkout expires.
Expiration *string

// Date and time at which the license checkout is issued.
IssuedAt *string

// Amazon Resource Name (ARN) of the license.
LicenseArn *string

// License consumption token.
LicenseConsumptionToken *string
```

```
// Node ID.
NodeId *string

// Signed token.
SignedToken *string

// Metadata pertaining to the operation's result.
ResultMetadata middleware.Metadata

noSmithyDocumentSerde
}

func (c *Client) addOperationCheckoutBorrowLicenseMiddlewares(stack *middleware.Stack, options Options) (err
error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpCheckoutBorrowLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpCheckoutBorrowLicense{}, middleware.After)
 if err != nil {
  return
 err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "CheckoutBorrowLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
```

```
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return
 err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addOpCheckoutBorrowLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opCheckoutBorrowLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}
```

```
func newServiceMetadataMiddleware_opCheckoutBorrowLicense(region string)
*awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:
       region,
  ServiceID:     ServiceID,
  OperationName: "CheckoutBorrowLicense",
 }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Gets detailed information about the specified license.
func (c *Client) GetLicense(ctx context.Context, params *GetLicenseInput, optFns ...func(*Options))
(*GetLicenseOutput, error) {
 if params == nil {
  params = &GetLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "GetLicense", params, optFns,
c.addOperationGetLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*GetLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type GetLicenseInput struct {

 // Amazon Resource Name (ARN) of the license.
 //
 // This member is required.
 LicenseArn *string

 // License version.
```

```
 Version *string

 noSmithyDocumentSerde
}

type
 GetLicenseOutput struct {

 // License details.
 License *types.License

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationGetLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpGetLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpGetLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "GetLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err
 != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
```

```
}
if err = addComputePayloadSHA256(stack); err != nil {
 return err
}
if err = addRetry(stack, options); err != nil {
 return err
}
if err = addRawResponseToMetadata(stack); err != nil {
 return err
}
if err = addRecordResponseTiming(stack); err != nil {
 return err
}
if err = addClientUserAgent(stack, options); err != nil {
 return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
 return err
}
if err = addOpGetLicenseValidationMiddleware(stack); err != nil {
 return err
}
if err = stack.Initialize.Add(newServiceMetadataMiddleware_opGetLicense(options.Region), middleware.Before);
err != nil {
 return err
}
if err = addRecursionDetection(stack); err != nil {
 return err
}
if err = addRequestIDRetrieverMiddleware(stack); err != nil {
 return err
}
if err = addResponseErrorMiddleware(stack); err != nil {
 return err
}
if err = addRequestResponseLogging(stack, options); err != nil {
 return err
}
if err = addDisableHTTPSMiddleware(stack, options); err != nil {
 return err
}
return nil
```

```
}

func newServiceMetadataMiddleware_opGetLicense(region string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName: "GetLicense",
 }
}
DeleteLicense
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
  OperationInputValidation
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
 Build stack step
  ClientRequestID
  ComputeContentLength
  UserAgent
  RecursionDetection
 Finalize stack step
  ResolveAuthScheme
  GetIdentity
  ResolveEndpointV2
  disableHTTPS
  ComputePayloadHash
  Retry
  RetryMetricsHeader
  setLegacyContextSigningOptions
  Signing
 Deserialize stack step
  AddRawResponseToMetadata
  ErrorCloseResponseBody
  CloseResponseBody
  ResponseErrorWrapper
  RequestIDRetriever
  OperationDeserializer
  RecordResponseTiming
  RequestResponseLogger
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
```

```
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Lists the licenses for your account.
func (c *Client) ListLicenses(ctx context.Context, params *ListLicensesInput, optFns ...func(*Options))
(*ListLicensesOutput, error) {
 if params == nil {
  params = &ListLicensesInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "ListLicenses", params, optFns,
c.addOperationListLicensesMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*ListLicensesOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type ListLicensesInput struct {

 // Filters to scope the results. The following filters are supported:
 //
 //   - Beneficiary
 //
 //   - ProductSKU
 //
 //   - Fingerprint
 //
 //   - Status
 Filters
 []types.Filter

 // Amazon Resource Names (ARNs) of the licenses.
 LicenseArns []string

 // Maximum number of results to return in a single call.
 MaxResults *int32

 // Token for the next set of results.
 NextToken *string
```

```
 noSmithyDocumentSerde
}

type ListLicensesOutput struct {

 // License details.
 Licenses []types.License

 // Token for the next set of results.
 NextToken *string

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationListLicensesMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpListLicenses{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpListLicenses{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack,
 options, "ListLicenses"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
```

```
 return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
 return err
 }
 if err = addRetry(stack, options); err != nil {
 return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
 return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
 return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
 return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack);
 err != nil {
 return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
 return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opListLicenses(options.Region), middleware.Before);
 err != nil {
 return err
 }
 if err = addRecursionDetection(stack); err != nil {
 return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
 return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
 return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
 return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
 return err
 }
 return nil
}
```

```
func newServiceMetadataMiddleware_opListLicenses(region string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:    ServiceID,
  OperationName: "ListLicenses",
 }
}
```

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```
ListReceivedLicenses
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
 Build stack step
  ClientRequestID
  ComputeContentLength
```

UserAgent
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
RecordResponseTiming
RequestResponseLogger

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APPENDIX: How to apply the Apache License to your work.

To apply the Apache License to your work, attach the following
boilerplate notice, with the fields enclosed by brackets "[]"
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the brackets!) The text should be enclosed in the appropriate
comment syntax for the file format. We also recommend that a
file or class name and description of purpose be included on the
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limitations under the License.
// Code generated by smithy-go-codegen DO NOT EDIT.

package grafana

import (
"context"
"fmt"
awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
"github.com/aws/aws-sdk-go-v2/service/grafana/types"

```
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Removes the Grafana Enterprise license from a workspace.
func (c *Client) DisassociateLicense(ctx context.Context, params *DisassociateLicenseInput, optFns
...func(*Options)) (*DisassociateLicenseOutput, error) {
 if params == nil {
  params = &DisassociateLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "DisassociateLicense", params, optFns,
c.addOperationDisassociateLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*DisassociateLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type DisassociateLicenseInput struct {

 // The type of license to remove from the workspace.
 //
 // This member is required.
 LicenseType types.LicenseType

 //
 The ID of the workspace to remove the Grafana Enterprise license from.
 //
 // This member is required.
 WorkspaceId *string

 noSmithyDocumentSerde
}

type DisassociateLicenseOutput struct {

 // A structure containing information about the workspace.
 //
 // This member is required.
 Workspace *types.WorkspaceDescription

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata
```

```
 noSmithyDocumentSerde
}

func (c *Client) addOperationDisassociateLicenseMiddlewares(stack *middleware.Stack, options Options) (err
error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsRestjson1_serializeOpDisassociateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsRestjson1_deserializeOpDisassociateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "DisassociateLicense");
 err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
```

```
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil
 {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addOpDisassociateLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opDisassociateLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opDisassociateLicense(region string)
*awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName: "DisassociateLicense",
 }
}
// Code generated by smithy-go-codegen DO NOT EDIT.
```

```
package grafana

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/grafana/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Assigns a Grafana Enterprise license to a workspace. To upgrade, you must use
// ENTERPRISE for the licenseType , and pass in a valid Grafana Labs token for the
// grafanaToken . Upgrading to Grafana Enterprise incurs additional fees. For more
// information, see [Upgrade a workspace to Grafana Enterprise].
//
// [Upgrade a workspace to Grafana Enterprise]: https://docs.aws.amazon.com/grafana/latest/userguide/upgrade-to-
Grafana-Enterprise.html
func (c *Client) AssociateLicense(ctx context.Context, params *AssociateLicenseInput, optFns ...func(*Options))
(*AssociateLicenseOutput, error) {
 if params == nil {
  params = &AssociateLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx,
 "AssociateLicense", params, optFns, c.addOperationAssociateLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*AssociateLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type AssociateLicenseInput struct {

 // The type of license to associate with the workspace.
 //
 // Amazon Managed Grafana workspaces no longer support Grafana Enterprise free
 // trials.
 //
 // This member is required.
 LicenseType types.LicenseType

 // The ID of the workspace to associate the license with.
 //
 // This member is required.
```

```
 WorkspaceId *string

 // A token from Grafana Labs that ties your Amazon Web Services account with a
 // Grafana Labs account. For more information, see [Link your account with Grafana Labs].
 //
 // [Link your account with Grafana Labs]: https://docs.aws.amazon.com/grafana/latest/userguide/upgrade-to-
Grafana-Enterprise.html#AMG-workspace-register-enterprise
 GrafanaToken *string

 noSmithyDocumentSerde
}

type AssociateLicenseOutput
 struct {

 // A structure containing data about the workspace.
 //
 // This member is required.
 Workspace *types.WorkspaceDescription

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationAssociateLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsRestjson1_serializeOpAssociateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsRestjson1_deserializeOpAssociateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "AssociateLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack,
 options); err != nil {
  return err
```

```
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addOpAssociateLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err
 = stack.Initialize.Add(newServiceMetadataMiddleware_opAssociateLicense(options.Region), middleware.Before);
err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
```

```
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opAssociateLicense(region string)
*awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName: "AssociateLicense",
 }
}
{
  "smithy": "2.0",
  "shapes": {
     "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException": {
        "type": "structure",
        "members": {
           "message": {
              "target": "smithy.api#String"
           }
        },
        "traits": {
           "smithy.api#documentation": "<p>You don't have sufficient access to perform this action.</p>",
           "smithy.api#error": "client"
        }
     },
     "com.amazonaws.licensemanagerusersubscriptions#ActiveDirectoryIdentityProvider": {
        "type": "structure",
        "members": {
           "DirectoryId": {
              "target": "smithy.api#String",
              "traits": {
                 "smithy.api#documentation": "<p>The directory ID for an Active Directory identity provider.</p>"
              }
           }
        },
        "traits": {
           "smithy.api#documentation":
```

```
"<p>Details about an Active Directory identity provider.</p>"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#AssociateUser": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#AssociateUserRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#AssociateUserResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
           },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Associates the user to an EC2 instance to utilize user-based
subscriptions.</p>\n        <note>\n          <p>Your estimated bill for charges on the number of users and related
costs will take 48\n        hours to appear for billing periods that haven't closed (marked as <b>Pending</b> billing
status) in Amazon Web Services Billing. For more information, see <a
href=\"https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/invoice.html\">Viewing your\n
        monthly charges</a> in the <i>Amazon Web Services Billing User Guide</i>.</p>\n        </note>",
          "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/user/AssociateUser"
          },
          "smithy.api#idempotent": {}
        }
```

```
    },
    "com.amazonaws.licensemanagerusersubscriptions#AssociateUserRequest": {
      "type": "structure",
      "members": {
        "Username": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The user name from the identity provider for the user.</p>",
            "smithy.api#required": {}
          }
        },
        "InstanceId": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The ID of the
EC2 instance, which provides user-based subscriptions.</p>",
            "smithy.api#required": {}
          }
        },
        "IdentityProvider": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
          "traits": {
            "smithy.api#documentation": "<p>The identity provider of the user.</p>",
            "smithy.api#required": {}
          }
        },
        "Domain": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The domain name of the user.</p>"
          }
        }
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#AssociateUserResponse": {
      "type": "structure",
      "members": {
        "InstanceUserSummary": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummary",
           "traits": {
            "smithy.api#documentation": "<p>Metadata that describes the associate user operation.</p>",
            "smithy.api#required": {}
          }
        }
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#BoxInteger": {
      "type": "integer"
```

```
    },
    "com.amazonaws.licensemanagerusersubscriptions#ConflictException": {
        "type": "structure",
        "members": {
            "message": {
                "target": "smithy.api#String"
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>The request couldn't be completed because it conflicted with the current
state of the\n      resource.</p>",
            "smithy.api#error": "server"
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProvider":
{
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProviderRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProviderResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
             },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Deregisters the identity provider from providing user-based
```

```
subscriptions.</p>",
            "smithy.api#http": {
              "code": 200,
              "method": "POST",
              "uri": "/identity-provider/DeregisterIdentityProvider"
            },
            "smithy.api#idempotent": {}
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProviderRequest": {
          "type": "structure",
          "members": {
            "IdentityProvider": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
               "traits": {
                 "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
                 "smithy.api#required": {}
               }
            },
            "Product": {
              "target": "smithy.api#String",
              "traits": {
                 "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
                 "smithy.api#required": {}
               }
            }
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProviderResponse": {
          "type": "structure",
          "members": {
            "IdentityProviderSummary": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary",
              "traits": {
                 "smithy.api#documentation":
 "<p>Metadata that describes the results of an identity provider operation.</p>",
                 "smithy.api#required": {}
               }
            }
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#DisassociateUser": {
          "type": "operation",
          "input": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#DisassociateUserRequest"
          },
          "output": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#DisassociateUserResponse"
```

```
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
           },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Disassociates the user from an EC2 instance providing user-based
subscriptions.</p>",
          "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/user/DisassociateUser"
          },
          "smithy.api#idempotent": {}
        }

    },
    "com.amazonaws.licensemanagerusersubscriptions#DisassociateUserRequest": {
        "type": "structure",
        "members": {
          "Username": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The user name from the identity provider for the user.</p>",
              "smithy.api#required": {}
            }
          },
          "InstanceId": {
            "target": "smithy.api#String",
```

```
            "traits": {
                "smithy.api#documentation": "<p>The ID of the EC2 instance, which provides user-based
subscriptions.</p>",
                "smithy.api#required": {}
            }
        },
        "IdentityProvider": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
            "traits": {
                "smithy.api#documentation":
"<p>An object that specifies details for the identity provider.</p>",
                "smithy.api#required": {}
            }
        },
        "Domain": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The domain name of the user.</p>"
            }
        }
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#DisassociateUserResponse": {
      "type": "structure",
      "members": {
        "InstanceUserSummary": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummary",
            "traits": {
                "smithy.api#documentation": "<p>Metadata that describes the associate user operation.</p>",
                "smithy.api#required": {}
            }
        }
      }
    },

"com.amazonaws.licensemanagerusersubscriptions#Filter": {
      "type": "structure",
      "members": {
        "Attribute": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The name of an attribute to use as a filter.</p>"
            }
        },
        "Operation": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The type of search (For example, eq, geq, leq)</p>"
```

```
            }
          },
          "Value": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Value of the filter.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>A filter name and value pair that is used
 to return more specific results from a describe\n      operation. Filters can be used to match a set of resources by
specific criteria, such as tags,\n      attributes, or IDs.</p>"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#FilterList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#Filter"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider": {
        "type": "union",
        "members": {
          "ActiveDirectoryIdentityProvider": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ActiveDirectoryIdentityProvider",
            "traits": {
              "smithy.api#documentation": "<p>An object that details an Active Directory identity provider.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation":
 "<p>Details about an identity provider.</p>"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary": {
        "type": "structure",
        "members": {
          "IdentityProvider": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
            "traits": {
              "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
              "smithy.api#required": {}
            }
          },
          "Settings": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#Settings",
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```
            "traits": {
                "smithy.api#documentation": "<p>An object that details the registered identity providers product
related configuration\n      settings such as the subnets to provision VPC endpoints.</p>",
                "smithy.api#required":
{}
            }
          },
          "Product": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
              "smithy.api#required": {}
            }
          },
          "Status": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The status of an identity provider.</p>",
              "smithy.api#required": {}
            }
          },
          "FailureMessage": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The failure message associated with an identity provider.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation":
"<p>Describes an identity provider.</p>"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummaryList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#InstanceSummary": {
        "type": "structure",
        "members": {
          "InstanceId": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The ID of the EC2 instance, which provides user-based
subscriptions.</p>",
              "smithy.api#required": {}
```

```
            }
          },
          "Status": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The status
of an EC2 instance resource.</p>",
              "smithy.api#required": {}
            }
          },
          "Products": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#StringList",
            "traits": {
              "smithy.api#documentation": "<p>A list of provided user-based subscription products.</p>",
              "smithy.api#required": {}
            }
          },
          "LastStatusCheckDate": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The date of the last status check.</p>"
            }
          },
          "StatusMessage": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The status message for an EC2 instance.</p>"
            }

      }
        },
        "traits": {
          "smithy.api#documentation": "<p>Describes an EC2 instance providing user-based subscriptions.</p>"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#InstanceSummaryList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceSummary"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummary": {
        "type": "structure",
        "members": {
          "Username": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The user name from the identity provider for the user.</p>",
```

```
                "smithy.api#required": {}
            }
        },
        "InstanceId": {
            "target": "smithy.api#String",
            "traits":
{
                "smithy.api#documentation": "<p>The ID of the EC2 instance, which provides user-based
subscriptions.</p>",
                "smithy.api#required": {}
            }
        },
        "IdentityProvider": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
            "traits": {
                "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
                "smithy.api#required": {}
            }
        },
        "Status": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The status of a user associated with an EC2 instance.</p>",
                "smithy.api#required": {}
            }
        },
        "StatusMessage": {
            "target": "smithy.api#String",
             "traits": {
                "smithy.api#documentation": "<p>The status message for users of an EC2 instance.</p>"
            }
        },
        "Domain": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The domain name of the user.</p>"
            }
        },
        "AssociationDate": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The date a user was associated with an EC2 instance.</p>"
            }
        },
        "DisassociationDate": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The date a user was disassociated from an EC2 instance.</p>"
```

```
            }
          }

  },
        "traits": {
          "smithy.api#documentation": "<p>Describes users of an EC2 instance providing user-based
subscriptions.</p>"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummaryList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummary"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#InternalServerException": {
        "type": "structure",
        "members": {
          "message": {
            "target": "smithy.api#String"
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>An exception occurred with the service.</p>",
          "smithy.api#error": "server"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#LicenseManagerUserSubscriptions": {
        "type": "service",

       "version": "2018-05-10",
        "operations": [
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AssociateUser"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProvider"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#DisassociateUser"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProviders"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ListInstances"
          },
          {
```

```
            "target": "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptions"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociations"

},
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProvider"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscription"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscription"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettings"
          }
        ],
        "traits": {
          "aws.api#service": {
            "sdkId": "License Manager User Subscriptions",
            "arnNamespace": "license-manager-user-subscriptions",
            "cloudTrailEventSource": "license-manager-user-subscriptions.amazonaws.com"
          },
          "aws.auth#sigv4": {
            "name": "license-manager-user-subscriptions"
           },
          "aws.protocols#restJson1": {},
          "smithy.api#cors": {
            "additionalAllowedHeaders": [
              "*",
              "content-type",
              "x-amz-content-sha256",
              "x-amz-user-agent",
              "x-amzn-platform-id",
              "x-amzn-trace-id",
              "content-length",
              "x-api-key",
              "authorization",
              "x-amz-date",
              "x-amz-security-token",
              "Access-Control-Allow-Headers",
              "Access-Control-Allow-Methods",
              "Access-Control-Allow-Origin"
            ],
            "additionalExposedHeaders": [
              "x-amzn-errortype",
```

```
                "x-amzn-requestid",
                "x-amzn-trace-id"

 ]
            },
            "smithy.api#documentation": "<p>With License Manager, you can create user-based subscriptions to utilize licensed software with\n      a per user subscription fee on Amazon EC2 instances.</p>",
            "smithy.api#title": "AWS License Manager User Subscriptions",
            "smithy.rules#endpointRuleSet": {
              "version": "1.0",
              "parameters": {
                "Region": {
                  "builtIn": "AWS::Region",
                  "required": false,
                  "documentation": "The AWS region used to dispatch the request.",
                  "type": "String"
                },
                "UseDualStack": {
                  "builtIn": "AWS::UseDualStack",
                  "required": true,
                  "default": false,
                  "documentation": "When true, use the dual-stack
 endpoint. If the configured endpoint does not support dual-stack, dispatching the request MAY return an error.",
                  "type": "Boolean"
                },
                "UseFIPS": {
                  "builtIn": "AWS::UseFIPS",
                  "required": true,
                  "default": false,
                  "documentation": "When true, send this request to the FIPS-compliant regional endpoint. If the configured endpoint does not have a FIPS compliant endpoint, dispatching the request will return an error.",
                  "type": "Boolean"
                },
                "Endpoint": {
                  "builtIn": "SDK::Endpoint",
                  "required": false,
                  "documentation": "Override the endpoint used to send this request",
                  "type": "String"
                }

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            "rules": [
              {
                "conditions": [
                  {
                    "fn": "isSet",
                    "argv": [
                      {
```

```
                "ref": "Endpoint"
              }
            ]
          }
        ],
        "type": "tree",
        "rules": [
          {
            "conditions": [
              {
                "fn": "booleanEquals",
                "argv": [
                  {
                    "ref": "UseFIPS"
                  },

                  true
                ]
              }
            ],
            "error": "Invalid Configuration: FIPS and custom endpoint are not supported",
            "type": "error"
          },
          {
            "conditions": [
              {
                "fn": "booleanEquals",
                "argv": [
                  {
                    "ref": "UseDualStack"
                  },
                  true
                ]
              }
            ],

      "error": "Invalid Configuration: Dualstack and custom endpoint are not supported",
            "type": "error"
          },
          {
            "conditions": [],
            "endpoint": {
              "url": {
                "ref": "Endpoint"
              },
              "properties": {},
              "headers": {}
            },
```

```
                "type": "endpoint"
              }
            ]
          },
          {
            "conditions": [
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                "fn": "isSet",
                "argv": [

    {
                    "ref": "Region"
                  }
                ]
              }
            ],
            "type": "tree",
            "rules": [
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                "conditions": [
                  {
                    "fn": "aws.partition",
                    "argv": [
                      {
                        "ref": "Region"
                      }
                    ],
                    "assign": "PartitionResult"
                  }
                ],
                "type": "tree",

"rules": [
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                    "conditions": [
                      {
                        "fn": "booleanEquals",
                        "argv": [
                          {
                            "ref": "UseFIPS"
                          },
                          true
                        ]
                      },
                      {
                        "fn": "booleanEquals",
                        "argv": [
                          {
```

```
                "ref": "UseDualStack"

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              true
            ]
          }
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        "type": "tree",
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                "argv": [
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                  {
                    "fn": "getAttr",

"argv": [
                      {
                        "ref": "PartitionResult"
                      },
                      "supportsFIPS"
                    ]
                  }
                ]
              },
              {
                "fn": "booleanEquals",
                "argv": [
                  true,
                  {

        "fn": "getAttr",
                      "argv": [
                        {
                          "ref": "PartitionResult"
                        },
                        "supportsDualStack"
                      ]
                    }
                  ]
                }
              ],
              "type": "tree",
              "rules": [
                {
```

```
            "conditions": [],
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                                       "url": "https://license-manager-user-subscriptions-
fips.{Region}.{PartitionResult#dualStackDnsSuffix}",
                                       "properties": {},
                                       "headers": {}
                                    },
                                    "type": "endpoint"
                                 }
                              ]
                           },
                           {
                              "conditions": [],
                              "error": "FIPS and DualStack are enabled, but this partition does not support one or
both",
                               "type": "error"
                           }
                        ]
                     },
                     {
                        "conditions": [
                           {
                              "fn": "booleanEquals",
                              "argv": [
                                 {
                                    "ref": "UseFIPS"
                                 },
                                 true
                              ]
                           }
                        ],
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                              "conditions": [
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                                    "argv": [
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                                       {
                                          "fn": "getAttr",
                                          "argv": [
                                             {
                                                "ref": "PartitionResult"
                                             },
                                             "supportsFIPS"
```

```
                                    ]
                                        }
                                    ]
                                }
                            ],
                            "type": "tree",
                            "rules": [
                                {
                                    "conditions": [],
                                    "endpoint": {
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fips.{Region}.{PartitionResult#dnsSuffix}",
                                        "properties": {},
                                        "headers": {}

                },
                                    "type": "endpoint"
                                }
                            ]
                        },
                        {
                            "conditions": [],
                            "error": "FIPS is enabled but this partition does not support FIPS",
                            "type": "error"
                        }
                    ]
                },
                {
                    "conditions": [
                        {
                            "fn": "booleanEquals",
                            "argv": [
                                {
                                    "ref": "UseDualStack"
                                },
                                true
                            ]
                        }
                    ],
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                            "conditions": [
                                {
                                    "fn": "booleanEquals",
                                    "argv": [
                                        true,
                                        {
```

```
                                    "fn": "getAttr",
                                        "argv": [
                                            {
                                                "ref": "PartitionResult"
                                            },
                                            "supportsDualStack"
                                        ]
                                    }
                                ]
                            }
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                        "type": "tree",
                        "rules": [
                            {

                                "conditions": [],
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subscriptions.{Region}.{PartitionResult#dualStackDnsSuffix}",
                                    "properties": {},
                                    "headers": {}
                                },
                                "type": "endpoint"
                            }
                        ]
                    },
                    {
                        "conditions": [],
                        "error": "DualStack is enabled but this partition does
 not support DualStack",
                        "type": "error"
                    }
                ]
            },
            {
                "conditions": [],
                "endpoint": {
                    "url": "https://license-manager-user-
subscriptions.{Region}.{PartitionResult#dnsSuffix}",
                    "properties": {},
                    "headers": {}
                },
                "type": "endpoint"
            }
        ]
    }
]
```

```
            },
            {
              "conditions":
[],
              "error": "Invalid Configuration: Missing Region",
              "type": "error"
            }
          ]
        },
        "smithy.rules#endpointTests": {
          "testCases": [
            {
              "documentation": "For region us-east-1 with FIPS enabled and DualStack enabled",
              "expect": {
                "endpoint": {
                  "url": "https://license-manager-user-subscriptions-fips.us-east-1.api.aws"
                }
              },
              "params": {
                "Region": "us-east-1",
                "UseFIPS": true,
                "UseDualStack": true
              }
            },
            {
              "documentation":
"For region us-east-1 with FIPS enabled and DualStack disabled",
              "expect": {
                "endpoint": {
                  "url": "https://license-manager-user-subscriptions-fips.us-east-1.amazonaws.com"
                }
              },
              "params": {
                "Region": "us-east-1",
                "UseFIPS": true,
                "UseDualStack": false
              }
            },
            {
              "documentation": "For region us-east-1 with FIPS disabled and DualStack enabled",
              "expect": {
                "endpoint": {
                  "url": "https://license-manager-user-subscriptions.us-east-1.api.aws"
                }
              },

            "params": {
                  "Region": "us-east-1",
```

```
            "UseFIPS": false,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region us-east-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-user-subscriptions.us-east-1.amazonaws.com"
            }
          },
          "params": {
            "Region": "us-east-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region cn-north-1 with
 FIPS enabled and DualStack enabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-user-subscriptions-fips.cn-north-
1.api.amazonwebservices.com.cn"
            }
          },
          "params": {
            "Region": "cn-north-1",
            "UseFIPS": true,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region cn-north-1 with FIPS enabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-user-subscriptions-fips.cn-north-1.amazonaws.com.cn"
            }
          },

      "params": {
            "Region": "cn-north-1",
            "UseFIPS": true,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region cn-north-1 with FIPS disabled and DualStack enabled",
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```
      "expect": {
        "endpoint": {
          "url": "https://license-manager-user-subscriptions.cn-north-1.api.amazonwebservices.com.cn"
        }
      },
      "params": {
        "Region": "cn-north-1",
        "UseFIPS": false,
        "UseDualStack": true
      }
    },
    {
      "documentation": "For region cn-north-1
with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-user-subscriptions.cn-north-1.amazonaws.com.cn"
        }
      },
      "params": {
        "Region": "cn-north-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack enabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-user-subscriptions-fips.us-gov-east-1.api.aws"
        }
      },

  "params": {
        "Region": "us-gov-east-1",
        "UseFIPS": true,
        "UseDualStack": true
      }
    },
    {
      "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-user-subscriptions-fips.us-gov-east-1.amazonaws.com"
        }
      },
      "params": {
        "Region": "us-gov-east-1",
```

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                "UseFIPS": true,
                "UseDualStack": false
            }
        },
        {
            "documentation": "For region us-gov-east-1
with FIPS disabled and DualStack enabled",
            "expect": {
                "endpoint": {
                    "url": "https://license-manager-user-subscriptions.us-gov-east-1.api.aws"
                }
            },
            "params": {
                "Region": "us-gov-east-1",
                "UseFIPS": false,
                "UseDualStack": true
            }
        },
        {
            "documentation": "For region us-gov-east-1 with FIPS disabled and DualStack disabled",
            "expect": {
                "endpoint": {
                    "url": "https://license-manager-user-subscriptions.us-gov-east-1.amazonaws.com"
                }
            },

    "params": {
                "Region": "us-gov-east-1",
                "UseFIPS": false,
                "UseDualStack": false
            }
        },
        {
            "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack enabled",
            "expect": {
                "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
            },
            "params": {
                "Region": "us-iso-east-1",
                "UseFIPS": true,
                "UseDualStack": true
            }
        },
        {
            "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack disabled",
            "expect":
{
                "endpoint": {
```

```
                "url": "https://license-manager-user-subscriptions-fips.us-iso-east-1.c2s.ic.gov"
              }
            },
            "params": {
              "Region": "us-iso-east-1",
              "UseFIPS": true,
              "UseDualStack": false
            }
          },
          {
            "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack enabled",
            "expect": {
              "error": "DualStack is enabled but this partition does not support DualStack"
            },
            "params": {
              "Region": "us-iso-east-1",
              "UseFIPS": false,
              "UseDualStack":
true
            }
          },
          {
            "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack disabled",
            "expect": {
              "endpoint": {
                "url": "https://license-manager-user-subscriptions.us-iso-east-1.c2s.ic.gov"
              }
            },
            "params": {
              "Region": "us-iso-east-1",
              "UseFIPS": false,
              "UseDualStack": false
            }
          },
          {
            "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack enabled",
            "expect": {
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this partition does not support one or both"
            },
            "params": {
              "Region": "us-isob-east-1",
              "UseFIPS": true,
              "UseDualStack": true
            }
          },
          {
            "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack disabled",
```

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      "expect": {
        "endpoint": {
          "url": "https://license-manager-user-subscriptions-fips.us-isob-east-1.sc2s.sgov.gov"
        }
      },
      "params": {
        "Region": "us-isob-east-1",
        "UseFIPS": true,
        "UseDualStack": false
      }

  },
    {
      "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack enabled",
      "expect": {
        "error": "DualStack is enabled but this partition does not support DualStack"
      },
      "params": {
        "Region": "us-isob-east-1",
        "UseFIPS": false,
        "UseDualStack": true
      }
    },
    {
      "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-user-subscriptions.us-isob-east-1.sc2s.sgov.gov"
        }
      },
       "params": {
        "Region": "us-isob-east-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For custom endpoint with region set and fips disabled and dualstack disabled",
      "expect": {
        "endpoint": {
          "url": "https://example.com"
        }
      },
      "params": {
        "Region": "us-east-1",
        "UseFIPS": false,
        "UseDualStack": false,
        "Endpoint": "https://example.com"
```

```
            }
        },
        {

"documentation": "For custom endpoint with region not set and fips disabled and dualstack disabled",
            "expect": {
                "endpoint": {
                    "url": "https://example.com"
                }
            },
            "params": {
                "UseFIPS": false,
                "UseDualStack": false,
                "Endpoint": "https://example.com"
            }
        },
        {
            "documentation": "For custom endpoint with fips enabled and dualstack disabled",
            "expect": {
                "error": "Invalid Configuration: FIPS and custom endpoint are not supported"
            },
            "params": {
                "Region": "us-east-1",
                 "UseFIPS": true,
                "UseDualStack": false,
                "Endpoint": "https://example.com"
            }
        },
        {
            "documentation": "For custom endpoint with fips disabled and dualstack enabled",
            "expect": {
                "error": "Invalid Configuration: Dualstack and custom endpoint are not supported"
            },
            "params": {
                "Region": "us-east-1",
                "UseFIPS": false,
                "UseDualStack": true,
                "Endpoint": "https://example.com"
            }
        },
        {
            "documentation": "Missing region",
            "expect": {
                 "error": "Invalid Configuration: Missing Region"
            }
        }
    ],
    "version": "1.0"
```

```
            }
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProviders": {
          "type": "operation",
          "input": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProvidersRequest"
          },
          "output": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProvidersResponse"
          },
          "errors": [
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
             },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Lists the identity providers for user-based subscriptions.</p>",
            "smithy.api#http": {
              "code": 200,
              "method": "POST",
              "uri": "/identity-provider/ListIdentityProviders"
            },
            "smithy.api#paginated":
{
              "inputToken": "NextToken",
              "outputToken": "NextToken",
              "pageSize": "MaxResults",
              "items": "IdentityProviderSummaries"
            }
```

```
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProvidersRequest": {
        "type": "structure",
        "members": {
          "MaxResults": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#BoxInteger",
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProvidersResponse":
{
        "type": "structure",
        "members": {
          "IdentityProviderSummaries": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummaryList",
            "traits": {
              "smithy.api#documentation": "<p>Metadata that describes the list identity providers operation.</p>",
              "smithy.api#required": {}
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListInstances": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListInstancesRequest"
         },
        "output": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListInstancesResponse"
        },
        "errors": [
          {
```

```
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Lists the EC2 instances providing user-based subscriptions.</p>",
          "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/instance/ListInstances"
          },
          "smithy.api#paginated": {
            "inputToken": "NextToken",
            "outputToken": "NextToken",
            "pageSize": "MaxResults",
            "items": "InstanceSummaries"
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListInstancesRequest": {
        "type": "structure",
        "members": {
          "MaxResults": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#BoxInteger",
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
```

```
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
              }
            },
            "Filters": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#FilterList",
              "traits": {
                "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those
that match one or\n      more sets of key-value pairs that you specify.</p>"
              }
            }
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#ListInstancesResponse": {
          "type":
 "structure",
          "members": {
            "InstanceSummaries": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceSummaryList",
              "traits": {
                "smithy.api#documentation": "<p>Metadata that describes the list instances operation.</p>"
              }
            },
            "NextToken": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
              }
            }
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptions": {
          "type": "operation",
          "input": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptionsRequest"
          },
          "output": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptionsResponse"
           },
          "errors": [
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
            },
```

```
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists the user-based subscription products available from an identity
provider.</p>",
            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/user/ListProductSubscriptions"
            },
            "smithy.api#paginated": {
                "inputToken": "NextToken",
                "outputToken": "NextToken",
                "pageSize": "MaxResults",
                "items": "ProductUserSummaries"
            }
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptionsRequest": {
        "type": "structure",
        "members": {
            "Product": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The name
 of the user-based subscription product.</p>",
                    "smithy.api#required": {}
                }
            },
            "IdentityProvider": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
                "traits": {
                    "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
                    "smithy.api#required": {}
                }
            },
            "MaxResults": {
```

```
            "target": "com.amazonaws.licensemanagerusersubscriptions#BoxInteger",
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          },
          "Filters": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#FilterList",
            "traits": {

  "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those that match one or\n      more sets of key-value pairs that you specify.</p>"
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptionsResponse": {
        "type": "structure",
        "members": {
          "ProductUserSummaries": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummaryList",
            "traits": {
              "smithy.api#documentation": "<p>Metadata that describes the list product subscriptions operation.</p>"
            }
          },

       "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociations": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociationsRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociationsResponse"
        },
```

```
        "errors": [
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
            },
            {
                "target":
"com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists user associations for an identity provider.</p>",
            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/user/ListUserAssociations"
            },
            "smithy.api#paginated":
{
                "inputToken": "NextToken",
                "outputToken": "NextToken",
                "pageSize": "MaxResults",
                "items": "InstanceUserSummaries"
            }
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociationsRequest": {
        "type": "structure",
        "members": {
            "InstanceId": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The ID of the EC2 instance, which provides user-based
subscriptions.</p>",
```

```
                "smithy.api#required": {}
            }
        },
        "IdentityProvider": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
            "traits": {
                "smithy.api#documentation": "<p>An object that specifies details for the identity
 provider.</p>",
                "smithy.api#required": {}
            }
        },
        "MaxResults": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#BoxInteger",
            "traits": {
                "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
        },
        "Filters": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#FilterList",
            "traits": {
                "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those
 that match one or\n      more sets of key-value pairs that you specify.</p>"
            }
        },
        "NextToken": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>Token for
 the next set of results.</p>"
            }
        }
    }
},
"com.amazonaws.licensemanagerusersubscriptions#ListUserAssociationsResponse": {
    "type": "structure",
    "members": {
        "InstanceUserSummaries": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummaryList",
            "traits": {
                "smithy.api#documentation": "<p>Metadata that describes the list user association operation.</p>"
            }
        },
        "NextToken": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
        }
```

```
    }
  },
  "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummary": {
    "type": "structure",
    "members": {

    "Username": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The user name from the identity provider of the user.</p>",
            "smithy.api#required": {}
          }
        },
        "Product": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
            "smithy.api#required": {}
          }
        },
        "IdentityProvider": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
          "traits": {
            "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
            "smithy.api#required": {}
          }

},
        "Status": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The status of a product for a user.</p>",
            "smithy.api#required": {}
          }
        },
        "StatusMessage": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The status message for a product for a user.</p>"
          }
        },
        "Domain": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The domain name of the user.</p>"
          }
        },
        "SubscriptionStartDate": {
```

```
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The
start date of a subscription.</p>"
            }
          },
          "SubscriptionEndDate": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The end date of a subscription.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>The summary of the user-based subscription products for a user.</p>"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummaryList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummary"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProvider": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProviderRequest"
         },
        "output": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProviderResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
          },
          {
```

```
            "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Registers an identity provider for user-based subscriptions.</p>",
          "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/identity-provider/RegisterIdentityProvider"
          },
          "smithy.api#idempotent": {}
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProviderRequest": {
        "type": "structure",
        "members": {
          "IdentityProvider": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
            "traits": {
              "smithy.api#documentation": "<p>An object that specifies details for the identity
provider.</p>",
              "smithy.api#required": {}
            }
          },
          "Product": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
              "smithy.api#required": {}
            }
          },
          "Settings": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#Settings",
            "traits": {
              "smithy.api#documentation": "<p>The registered identity providers product related configuration
settings such as the\n      subnets to provision VPC endpoints.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProviderResponse": {
        "type": "structure",
        "members": {
          "IdentityProviderSummary":
```

```
{
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary",
            "traits": {
                "smithy.api#documentation": "<p>Metadata that describes the results of an identity provider
operation.</p>",
                "smithy.api#required": {}
            }
          }
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException": {
        "type": "structure",
        "members": {
            "message": {
                "target": "smithy.api#String"
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>The resource couldn't be found.</p>",
            "smithy.api#error": "client",
            "smithy.api#httpError": 404
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#SecurityGroup": {
        "type": "string",

  "traits": {
            "smithy.api#length": {
                "min": 5,
                "max": 200
            },
            "smithy.api#pattern": "^sg-(([0-9a-z]{8})|([0-9a-z]{17}))$"
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException": {
        "type": "structure",
        "members": {
            "message": {
                "target": "smithy.api#String"
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>The request failed because a service quota is exceeded.</p>",
            "smithy.api#error": "client"
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#Settings": {
        "type": "structure",
```

```
        "members": {
          "Subnets": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#Subnets",
            "traits": {
              "smithy.api#documentation":
 "<p>The subnets defined for the registered identity provider.</p>",
              "smithy.api#length": {
                "min": 1
              },
              "smithy.api#required": {}
            }
          },
          "SecurityGroupId": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#SecurityGroup",
            "traits": {
              "smithy.api#documentation": "<p>A security group ID that allows inbound TCP port 1688
communication between resources in\n      your VPC and the VPC endpoint for activation servers.</p>",
              "smithy.api#required": {}
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>The registered identity providers product related configuration settings
such as the\n      subnets to provision VPC endpoints, and the security group ID that
 is associated with the VPC\n      endpoints. The security group should permit inbound TCP port 1688
communication from resources\n      in the VPC.</p>"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscription": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscriptionRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscriptionResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
           },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
```

```
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Starts a product subscription for a user with the specified identity provider.</p>\n         <note>\n            <p>Your estimated bill for charges on the number of users and related costs will take 48\n         hours to appear for billing periods that haven't closed (marked as <b>Pending</b> billing status) in Amazon Web Services Billing.
 For more information, see <a href=\"https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/invoice.html\">Viewing your\n         monthly charges</a> in the <i>Amazon Web Services Billing User Guide</i>.</p>\n         </note>",
            "smithy.api#http": {
               "code": 200,
               "method": "POST",
               "uri": "/user/StartProductSubscription"
            }
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscriptionRequest": {
         "type": "structure",
         "members": {
            "Username": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The user name from the identity provider of the user.</p>",
                  "smithy.api#required": {}
               }
            },
            "IdentityProvider": {
               "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
                "traits": {
                  "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
                  "smithy.api#required": {}
               }
            },
            "Product": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
                  "smithy.api#required": {}
```

```
            }
          },
          "Domain": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The domain name of the user.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscriptionResponse": {
        "type": "structure",
         "members": {
          "ProductUserSummary": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummary",
            "traits": {
              "smithy.api#documentation": "<p>Metadata that describes the start product subscription
operation.</p>",
              "smithy.api#required": {}
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscription": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscriptionRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscriptionResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"

    },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
          },
```

```
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Stops a product subscription for a user with the specified identity
provider.</p>",
             "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/user/StopProductSubscription"
            }
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscriptionRequest": {
        "type": "structure",
        "members": {
            "Username": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The user name from the identity provider for the user.</p>",
                    "smithy.api#required": {}
                }
            },
            "IdentityProvider": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
                "traits": {
                    "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
                    "smithy.api#required":
{}
                }
            },
            "Product": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
                    "smithy.api#required": {}
                }
            },
            "Domain": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The domain name of the user.</p>"
                }
            }
```

```
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscriptionResponse": {
        "type": "structure",
        "members": {
          "ProductUserSummary": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummary",
            "traits": {
              "smithy.api#documentation":
"<p>Metadata that describes the start product subscription operation.</p>",
              "smithy.api#required": {}
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#StringList": {
        "type": "list",
        "member": {
          "target": "smithy.api#String"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#Subnet": {
        "type": "string",
        "traits": {
          "smithy.api#pattern": "subnet-[a-z0-9]{8,17}"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#Subnets": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#Subnet"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException": {
        "type": "structure",
        "members": {
          "message": {

           "target": "smithy.api#String"
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>The request was denied because of request throttling. Retry the
request.</p>",
          "smithy.api#error": "client"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettings": {
```

```
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettingsRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettingsResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
             },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Updates additional product configuration settings for the registered
identity\n      provider.</p>",
            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/identity-provider/UpdateIdentityProviderSettings"
            },
            "smithy.api#idempotent": {}
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettingsRequest": {
        "type": "structure",
        "members": {
            "IdentityProvider": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
                 "traits": {
                    "smithy.api#required": {}
                }
            },
            "Product": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
                    "smithy.api#required": {}
                }
            },
```

```
            "UpdateSettings": {
               "target": "com.amazonaws.licensemanagerusersubscriptions#UpdateSettings",
               "traits": {
                  "smithy.api#documentation": "<p>Updates the registered identity providers product related
configuration settings. You can\n      update any combination of settings in a single operation such as the:</p>\n
<ul>\n            <li>\n               <p>Subnets which you want to add to provision VPC endpoints.</p>\n            </li>\n
         <li>\n               <p>Subnets which you want to remove the VPC endpoints from.</p>\n            </li>\n
<li>\n               <p>Security group ID which permits traffic to the VPC endpoints.</p>\n            </li>\n         </ul>",
                  "smithy.api#required": {}
               }
            }
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettingsResponse": {
         "type": "structure",
         "members": {
            "IdentityProviderSummary": {
               "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary",
               "traits": {
                  "smithy.api#required": {}
               }
            }
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#UpdateSettings": {
         "type": "structure",
         "members": {
            "AddSubnets": {

          "target": "com.amazonaws.licensemanagerusersubscriptions#Subnets",
               "traits": {
                  "smithy.api#documentation": "<p>The ID of one or more subnets in which License Manager will
create a VPC endpoint for products that\n      require connectivity to activation servers.</p>",
                  "smithy.api#required": {}
               }
            },
            "RemoveSubnets": {
               "target": "com.amazonaws.licensemanagerusersubscriptions#Subnets",
               "traits": {
                  "smithy.api#documentation": "<p>The ID of one or more subnets to remove.</p>",
                  "smithy.api#required": {}
               }
            },
            "SecurityGroupId": {
               "target": "com.amazonaws.licensemanagerusersubscriptions#SecurityGroup",
               "traits": {
                  "smithy.api#documentation": "<p>A security group ID
```

```
 that allows inbound TCP port 1688 communication between resources in\n      your VPC and the VPC endpoints for activation servers.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>Updates the registered identity providers product related configuration settings such as\n      the subnets to provision VPC endpoints.</p>"
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ValidationException": {
        "type": "structure",
        "members": {
            "message": {
                "target": "smithy.api#String"
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>A parameter is not valid.</p>",
            "smithy.api#error": "client"
        }
    }
  }
}
{
  "smithy": "2.0",
  "metadata": {
    "suppressions": [
        {
            "id": "HttpMethodSemantics",
            "namespace": "*"
        },
        {
            "id": "HttpResponseCodeSemantics",
            "namespace": "*"
        },
        {
            "id": "PaginatedTrait",
            "namespace": "*"
        },
        {
            "id": "HttpHeaderTrait",
            "namespace": "*"
        },
        {
            "id": "HttpUriConflict",
            "namespace": "*"
        },
```

```
      {
        "id": "Service",
        "namespace": "*"
      }
    ]
},
"shapes": {
  "com.amazonaws.licensemanager#AWSLicenseManager": {
    "type": "service",
    "version": "2018-08-01",
    "operations": [
      {
        "target": "com.amazonaws.licensemanager#AcceptGrant"
      },

{
        "target": "com.amazonaws.licensemanager#CheckInLicense"
      },
      {
        "target": "com.amazonaws.licensemanager#CheckoutBorrowLicense"
      },
      {
        "target": "com.amazonaws.licensemanager#CheckoutLicense"
      },
      {
        "target": "com.amazonaws.licensemanager#CreateGrant"
      },
      {
        "target": "com.amazonaws.licensemanager#CreateGrantVersion"
      },
      {
        "target": "com.amazonaws.licensemanager#CreateLicense"
      },
      {
        "target": "com.amazonaws.licensemanager#CreateLicenseConfiguration"
      },
      {
        "target": "com.amazonaws.licensemanager#CreateLicenseConversionTaskForResource"
      },
      {
        "target": "com.amazonaws.licensemanager#CreateLicenseManagerReportGenerator"
       },
      {
        "target": "com.amazonaws.licensemanager#CreateLicenseVersion"
      },
      {
        "target": "com.amazonaws.licensemanager#CreateToken"
      },
```

```
    {
      "target": "com.amazonaws.licensemanager#DeleteGrant"
    },
    {
      "target": "com.amazonaws.licensemanager#DeleteLicense"
    },
    {
      "target": "com.amazonaws.licensemanager#DeleteLicenseConfiguration"
    },
    {
      "target": "com.amazonaws.licensemanager#DeleteLicenseManagerReportGenerator"
    },
    {
      "target": "com.amazonaws.licensemanager#DeleteToken"
    },
    {
      "target": "com.amazonaws.licensemanager#ExtendLicenseConsumption"

},
    {
      "target": "com.amazonaws.licensemanager#GetAccessToken"
    },
    {
      "target": "com.amazonaws.licensemanager#GetGrant"
    },
    {
      "target": "com.amazonaws.licensemanager#GetLicense"
    },
    {
      "target": "com.amazonaws.licensemanager#GetLicenseConfiguration"
    },
    {
      "target": "com.amazonaws.licensemanager#GetLicenseConversionTask"
    },
    {
      "target": "com.amazonaws.licensemanager#GetLicenseManagerReportGenerator"
    },
    {
      "target": "com.amazonaws.licensemanager#GetLicenseUsage"
    },
    {
      "target": "com.amazonaws.licensemanager#GetServiceSettings"
    },
    {
      "target": "com.amazonaws.licensemanager#ListAssociationsForLicenseConfiguration"
     },
    {
      "target": "com.amazonaws.licensemanager#ListDistributedGrants"
```

```
},
{
   "target": "com.amazonaws.licensemanager#ListFailuresForLicenseConfigurationOperations"
},
{
   "target": "com.amazonaws.licensemanager#ListLicenseConfigurations"
},
{
   "target": "com.amazonaws.licensemanager#ListLicenseConversionTasks"
},
{
   "target": "com.amazonaws.licensemanager#ListLicenseManagerReportGenerators"
},
{
   "target": "com.amazonaws.licensemanager#ListLicenses"
},
{
   "target": "com.amazonaws.licensemanager#ListLicenseSpecificationsForResource"
},
{

  "target": "com.amazonaws.licensemanager#ListLicenseVersions"
},
{
   "target": "com.amazonaws.licensemanager#ListReceivedGrants"
},
{
   "target": "com.amazonaws.licensemanager#ListReceivedGrantsForOrganization"
},
{
   "target": "com.amazonaws.licensemanager#ListReceivedLicenses"
},
{
   "target": "com.amazonaws.licensemanager#ListReceivedLicensesForOrganization"
},
{
   "target": "com.amazonaws.licensemanager#ListResourceInventory"
},
{
   "target": "com.amazonaws.licensemanager#ListTagsForResource"
},
{
   "target": "com.amazonaws.licensemanager#ListTokens"
},
{
   "target": "com.amazonaws.licensemanager#ListUsageForLicenseConfiguration"
 },
{
```

```
            "target": "com.amazonaws.licensemanager#RejectGrant"
          },
          {
            "target": "com.amazonaws.licensemanager#TagResource"
          },
          {
            "target": "com.amazonaws.licensemanager#UntagResource"
          },
          {
            "target": "com.amazonaws.licensemanager#UpdateLicenseConfiguration"
          },
          {
            "target": "com.amazonaws.licensemanager#UpdateLicenseManagerReportGenerator"
          },
          {
            "target": "com.amazonaws.licensemanager#UpdateLicenseSpecificationsForResource"
          },
          {
            "target": "com.amazonaws.licensemanager#UpdateServiceSettings"
          }
        ],
        "traits": {
          "aws.api#service": {
             "sdkId": "License Manager",
            "arnNamespace": "license-manager",
            "cloudFormationName": "LicenseManager",
            "cloudTrailEventSource": "licensemanager.amazonaws.com",
            "endpointPrefix": "license-manager"
          },
          "aws.auth#sigv4": {
            "name": "license-manager"
          },
          "aws.protocols#awsJson1_1": {},
          "smithy.api#documentation": "<p>License Manager makes it easier to manage licenses from software
vendors across multiple \n         Amazon Web Services accounts and on-premises servers.</p>",
          "smithy.api#title": "AWS License Manager",
          "smithy.api#xmlNamespace": {
            "uri": "https://license-manager.amazonaws.com/doc/2018_08_01"
          },
          "smithy.rules#endpointRuleSet": {
            "version": "1.0",
            "parameters": {
              "Region": {
                "builtIn": "AWS::Region",
                "required": false,
                "documentation": "The AWS region used to dispatch the request.",
                "type": "String"
              },
```

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            "UseDualStack": {
              "builtIn": "AWS::UseDualStack",
              "required": true,
              "default": false,
              "documentation": "When true, use the dual-stack endpoint. If the configured endpoint does not
support dual-stack, dispatching the request MAY return an error.",
              "type": "Boolean"
            },
            "UseFIPS": {
              "builtIn": "AWS::UseFIPS",
              "required": true,
              "default": false,
              "documentation": "When true, send
 this request to the FIPS-compliant regional endpoint. If the configured endpoint does not have a FIPS compliant
endpoint, dispatching the request will return an error.",
              "type": "Boolean"
            },
            "Endpoint": {
              "builtIn": "SDK::Endpoint",
              "required": false,
              "documentation": "Override the endpoint used to send this request",
              "type": "String"
            }
          },
          "rules": [
            {
              "conditions": [
                {
                  "fn": "isSet",
                  "argv": [
                    {
                      "ref": "Endpoint"
                    }
                  ]

                }
              ],
              "type": "tree",
              "rules": [
                {
                  "conditions": [
                    {
                      "fn": "booleanEquals",
                      "argv": [
                        {
                          "ref": "UseFIPS"
                        },
                        true
```

```
                    ]
                }
            ],
            "error": "Invalid Configuration: FIPS and custom endpoint are not supported",
            "type": "error"
        },
        {

"conditions": [
                {
                    "fn": "booleanEquals",
                    "argv": [
                        {
                            "ref": "UseDualStack"
                        },
                        true
                    ]
                }
            ],
            "error": "Invalid Configuration: Dualstack and custom endpoint are not supported",
            "type": "error"
        },
        {
            "conditions": [],
            "endpoint": {
                "url": {
                    "ref": "Endpoint"
                 },
                "properties": {},
                "headers": {}
            },
            "type": "endpoint"
        }
    ]
},
{
    "conditions": [
        {
            "fn": "isSet",
            "argv": [
                {
                    "ref": "Region"
                }
            ]
        }
    ],
    "type": "tree",
    "rules": [
```

```
                    {
                      "conditions": [
                        {
                          "fn": "aws.partition",
                          "argv": [
                            {
                              "ref": "Region"
                            }
                          ],
                          "assign": "PartitionResult"
                        }
                      ],
                      "type": "tree",
                      "rules": [
                        {
                          "conditions": [
                            {
                              "fn": "booleanEquals",
                              "argv": [
                                {
                                  "ref":
"UseFIPS"
                                },
                                true
                              ]
                            },
                            {
                              "fn": "booleanEquals",
                              "argv": [
                                {
                                  "ref": "UseDualStack"
                                },
                                true
                              ]
                            }
                          ],
                          "type": "tree",
                          "rules": [
                            {
                              "conditions": [
                                {
                                  "fn": "booleanEquals",
                                  "argv": [
                                    true,
                                    {
                                      "fn": "getAttr",
                                      "argv": [
                                        {
```

```
                                    "ref": "PartitionResult"
                                },
                                "supportsFIPS"
                            ]

                        }
                    ]
                },
                {
                    "fn": "booleanEquals",
                    "argv": [
                        true,
                        {
                            "fn": "getAttr",
                            "argv": [
                                {
                                    "ref": "PartitionResult"
                                },

    "supportsDualStack"
                            ]
                        }
                    ]
                }
                ],
                "type": "tree",
                "rules": [
                    {
                        "conditions": [],
                        "endpoint": {
                            "url": "https://license-manager-
fips.{Region}.{PartitionResult#dualStackDnsSuffix}",
                            "properties": {},
                            "headers": {}

                    },
                        "type": "endpoint"
                    }
                ]
            },
            {
                "conditions": [],
                "error": "FIPS and DualStack are enabled, but this partition does not support one or
both",
                "type": "error"
            }
        ]
    },
```

```
    {
      "conditions": [
        {
          "fn": "booleanEquals",

       "argv": [
                {
                  "ref": "UseFIPS"
                },
                true
              ]
        }
      ],
      "type": "tree",
      "rules": [
        {
          "conditions": [
            {
              "fn": "booleanEquals",
              "argv": [
                true,

{
                    "fn": "getAttr",
                    "argv": [
                      {
                        "ref": "PartitionResult"
                      },
                      "supportsFIPS"
                    ]
                  }
                ]
              }
            ],
            "type": "tree",
            "rules": [

{
                "conditions": [],
                "endpoint": {
                  "url": "https://license-manager-fips.{Region}.{PartitionResult#dnsSuffix}",
                  "properties": {},
                  "headers": {}
                },
                "type": "endpoint"
              }
            ]
          },
```

```
                {
                  "conditions": [],
                  "error": "FIPS is enabled but this
partition does not support FIPS",
                  "type": "error"
                }
              ]
            },
            {
              "conditions": [
                {
                  "fn": "booleanEquals",
                  "argv": [
                    {
                      "ref": "UseDualStack"
                    },
                    true
                  ]
                }
              ],
              "type": "tree",
               "rules": [
                {
                  "conditions": [
                    {
                      "fn": "booleanEquals",
                      "argv": [
                        true,
                        {
                          "fn": "getAttr",
                          "argv": [
                            {
                              "ref": "PartitionResult"
                            },

    "supportsDualStack"
                            ]
                          }
                        ]
                      }
                    ],
                    "type": "tree",
                    "rules": [
                      {
                        "conditions": [],
                        "endpoint": {
                          "url": "https://license-
manager.{Region}.{PartitionResult#dualStackDnsSuffix}",
```

```
                                "properties": {},
                                "headers": {}

                            },
                                "type": "endpoint"
                            }
                        ]
                    },
                    {
                        "conditions": [],
                        "error": "DualStack is enabled but this partition does not support DualStack",
                        "type": "error"
                    }
                ]
            },
            {
                "conditions": [],
                "endpoint": {
                    "url": "https://license-manager.{Region}.{PartitionResult#dnsSuffix}",
                     "properties": {},
                    "headers": {}
                },
                "type": "endpoint"
            }
        ]
    }
  ]
},
{
  "conditions": [],
  "error": "Invalid Configuration: Missing Region",
  "type": "error"
}
  ]
},
"smithy.rules#endpointTests": {
  "testCases": [
    {
      "documentation": "For region af-south-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint":
{
          "url": "https://license-manager.af-south-1.amazonaws.com"
        }
      },
      "params": {
        "Region": "af-south-1",
        "UseFIPS": false,
```

```
      "UseDualStack": false
    }
  },
  {
    "documentation": "For region ap-east-1 with FIPS disabled and DualStack disabled",
    "expect": {
      "endpoint": {
        "url": "https://license-manager.ap-east-1.amazonaws.com"
      }
    },
    "params": {
      "Region": "ap-east-1",
      "UseFIPS": false,
      "UseDualStack": false
    }
  },
  {
    "documentation": "For region ap-northeast-1 with FIPS disabled and DualStack disabled",
    "expect": {
      "endpoint": {
        "url": "https://license-manager.ap-northeast-1.amazonaws.com"
      }
    },
    "params": {
      "Region": "ap-northeast-1",
      "UseFIPS": false,
      "UseDualStack": false
    }
  },
  {
    "documentation": "For region ap-northeast-2 with FIPS disabled and DualStack disabled",
    "expect": {
      "endpoint": {
        "url": "https://license-manager.ap-northeast-2.amazonaws.com"
      }
    },
    "params": {
      "Region": "ap-northeast-2",
      "UseFIPS": false,
      "UseDualStack": false
    }
  },
  {
    "documentation": "For region ap-northeast-3 with FIPS disabled and DualStack disabled",
    "expect": {
      "endpoint": {
        "url": "https://license-manager.ap-northeast-3.amazonaws.com"
      }
```

```
      },
      "params": {
        "Region": "ap-northeast-3",
        "UseFIPS": false,
        "UseDualStack": false
      }

},
    {
      "documentation": "For region ap-south-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager.ap-south-1.amazonaws.com"
        }
      },
      "params": {
        "Region": "ap-south-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region ap-southeast-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager.ap-southeast-1.amazonaws.com"

}
      },
      "params": {
        "Region": "ap-southeast-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region ap-southeast-2 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager.ap-southeast-2.amazonaws.com"
        }
      },
      "params": {
        "Region": "ap-southeast-2",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
```

```
        {

    "documentation": "For region ap-southeast-3 with FIPS disabled and DualStack disabled",
            "expect": {
              "endpoint": {
                "url": "https://license-manager.ap-southeast-3.amazonaws.com"
              }
            },
            "params": {
              "Region": "ap-southeast-3",
              "UseFIPS": false,
              "UseDualStack": false
            }
          },
          {
            "documentation": "For region ca-central-1 with FIPS disabled and DualStack disabled",
            "expect": {
              "endpoint": {
                "url": "https://license-manager.ca-central-1.amazonaws.com"
              }
            },

           "params": {
              "Region": "ca-central-1",
              "UseFIPS": false,
              "UseDualStack": false
            }
          },
          {
            "documentation": "For region eu-central-1 with FIPS disabled and DualStack disabled",
            "expect": {
              "endpoint": {
                "url": "https://license-manager.eu-central-1.amazonaws.com"
              }
            },
            "params": {
              "Region": "eu-central-1",
              "UseFIPS": false,
              "UseDualStack": false
            }
          },
          {
            "documentation": "For region eu-north-1 with FIPS
disabled and DualStack disabled",
            "expect": {
              "endpoint": {
                "url": "https://license-manager.eu-north-1.amazonaws.com"
              }
```

```
      },
      "params": {
        "Region": "eu-north-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region eu-south-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager.eu-south-1.amazonaws.com"
        }
      },
      "params": {
        "Region":
"eu-south-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region eu-west-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager.eu-west-1.amazonaws.com"
        }
      },
      "params": {
        "Region": "eu-west-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region eu-west-2 with FIPS disabled and DualStack disabled",
      "expect": {

      "endpoint": {
          "url": "https://license-manager.eu-west-2.amazonaws.com"
        }
      },
      "params": {
        "Region": "eu-west-2",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
```

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        {
          "documentation": "For region eu-west-3 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager.eu-west-3.amazonaws.com"
            }
          },
          "params": {
            "Region": "eu-west-3",
            "UseFIPS": false,

"UseDualStack": false
          }
        },
        {
          "documentation": "For region me-south-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager.me-south-1.amazonaws.com"
            }
          },
          "params": {
            "Region": "me-south-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region sa-east-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager.sa-east-1.amazonaws.com"
             }
          },
          "params": {
            "Region": "sa-east-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-east-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager.us-east-1.amazonaws.com"
            }
          },
          "params": {
```

```
            "Region": "us-east-1",
            "UseFIPS": false,
            "UseDualStack": false
          }

    },
          {
            "documentation": "For region us-east-1 with FIPS enabled and DualStack disabled",
            "expect": {
              "endpoint": {
                "url": "https://license-manager-fips.us-east-1.amazonaws.com"
              }
            },
            "params": {
              "Region": "us-east-1",
              "UseFIPS": true,
              "UseDualStack": false
            }
          },
          {
            "documentation": "For region us-east-2 with FIPS disabled and DualStack disabled",
            "expect": {
              "endpoint": {
                "url": "https://license-manager.us-east-2.amazonaws.com"
              }

           },
            "params": {
              "Region": "us-east-2",
              "UseFIPS": false,
              "UseDualStack": false
            }
          },
          {
            "documentation": "For region us-east-2 with FIPS enabled and DualStack disabled",
            "expect": {
              "endpoint": {
                "url": "https://license-manager-fips.us-east-2.amazonaws.com"
              }
            },
            "params": {
              "Region": "us-east-2",
              "UseFIPS": true,
              "UseDualStack": false
            }
          },
          {
            "documentation": "For region
```

```
us-west-1 with FIPS disabled and DualStack disabled",
                    "expect": {
                      "endpoint": {
                        "url": "https://license-manager.us-west-1.amazonaws.com"
                      }
                    },
                    "params": {
                      "Region": "us-west-1",
                      "UseFIPS": false,
                      "UseDualStack": false
                    }
                  },
                  {
                    "documentation": "For region us-west-1 with FIPS enabled and DualStack disabled",
                    "expect": {
                      "endpoint": {
                        "url": "https://license-manager-fips.us-west-1.amazonaws.com"
                      }
                    },
                    "params": {

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                      "UseFIPS": true,
                      "UseDualStack": false
                    }
                  },
                  {
                    "documentation": "For region us-west-2 with FIPS disabled and DualStack disabled",
                    "expect": {
                      "endpoint": {
                        "url": "https://license-manager.us-west-2.amazonaws.com"
                      }
                    },
                    "params": {
                      "Region": "us-west-2",
                      "UseFIPS": false,
                      "UseDualStack": false
                    }
                  },
                  {
                    "documentation": "For region us-west-2 with FIPS enabled and DualStack disabled",

"expect": {
                      "endpoint": {
                        "url": "https://license-manager-fips.us-west-2.amazonaws.com"
                      }
                    },
                    "params": {
```

```
            "Region": "us-west-2",
            "UseFIPS": true,
            "UseDualStack": false
        }
    },
    {
        "documentation": "For region us-east-1 with FIPS enabled and DualStack enabled",
        "expect": {
            "endpoint": {
                "url": "https://license-manager-fips.us-east-1.api.aws"
            }
        },
        "params": {
            "Region": "us-east-1",
            "UseFIPS": true,

            "UseDualStack": true
        }
    },
    {
        "documentation": "For region us-east-1 with FIPS disabled and DualStack enabled",
        "expect": {
            "endpoint": {
                "url": "https://license-manager.us-east-1.api.aws"
            }
        },
        "params": {
            "Region": "us-east-1",
            "UseFIPS": false,
            "UseDualStack": true
        }
    },
    {
        "documentation": "For region cn-north-1 with FIPS disabled and DualStack disabled",
        "expect": {
            "endpoint": {
                "url":
"https://license-manager.cn-north-1.amazonaws.com.cn"
            }
        },
        "params": {
            "Region": "cn-north-1",
            "UseFIPS": false,
            "UseDualStack": false
        }
    },
    {
        "documentation": "For region cn-northwest-1 with FIPS disabled and DualStack disabled",
```

```
      "expect": {
        "endpoint": {
          "url": "https://license-manager.cn-northwest-1.amazonaws.com.cn"
        }
      },
      "params": {
        "Region": "cn-northwest-1",
        "UseFIPS": false,
        "UseDualStack": false

}
    },
    {
      "documentation": "For region cn-north-1 with FIPS enabled and DualStack enabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-fips.cn-north-1.api.amazonwebservices.com.cn"
        }
      },
      "params": {
        "Region": "cn-north-1",
        "UseFIPS": true,
        "UseDualStack": true
      }
    },
    {
      "documentation": "For region cn-north-1 with FIPS enabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-fips.cn-north-1.amazonaws.com.cn"
         }
      },
      "params": {
        "Region": "cn-north-1",
        "UseFIPS": true,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region cn-north-1 with FIPS disabled and DualStack enabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager.cn-north-1.api.amazonwebservices.com.cn"
        }
      },
      "params": {
        "Region": "cn-north-1",
        "UseFIPS": false,
```

```
            "UseDualStack": true
          }
        },

    {
          "documentation": "For region us-gov-east-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager.us-gov-east-1.amazonaws.com"
            }
          },
          "params": {
            "Region": "us-gov-east-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-fips.us-gov-east-1.amazonaws.com"
            }
           },
          "params": {
            "Region": "us-gov-east-1",
            "UseFIPS": true,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-gov-west-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager.us-gov-west-1.amazonaws.com"
            }
          },
          "params": {
            "Region": "us-gov-west-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation":
"For region us-gov-west-1 with FIPS enabled and DualStack disabled",
          "expect": {
            "endpoint": {
```

```
                "url": "https://license-manager-fips.us-gov-west-1.amazonaws.com"
              }
            },
            "params": {
              "Region": "us-gov-west-1",
              "UseFIPS": true,
              "UseDualStack": false
            }
          },
          {
            "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack enabled",
            "expect": {
              "endpoint": {
                "url": "https://license-manager-fips.us-gov-east-1.api.aws"
              }
            },

      "params": {
              "Region": "us-gov-east-1",
              "UseFIPS": true,
              "UseDualStack": true
            }
          },
          {
            "documentation": "For region us-gov-east-1 with FIPS disabled and DualStack enabled",
            "expect": {
              "endpoint": {
                "url": "https://license-manager.us-gov-east-1.api.aws"
              }
            },
            "params": {
              "Region": "us-gov-east-1",
              "UseFIPS": false,
              "UseDualStack": true
            }
          },
          {
            "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack
disabled",
            "expect": {
              "endpoint": {
                "url": "https://license-manager.us-iso-east-1.c2s.ic.gov"
              }
            },
            "params": {
              "Region": "us-iso-east-1",
              "UseFIPS": false,
              "UseDualStack": false
```

```
      }
    },
    {
      "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack enabled",
      "expect": {
        "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
      },
      "params": {
        "Region": "us-iso-east-1",
        "UseFIPS": true,
         "UseDualStack": true
      }
    },
    {
      "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-fips.us-iso-east-1.c2s.ic.gov"
        }
      },
      "params": {
        "Region": "us-iso-east-1",
        "UseFIPS": true,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack enabled",
      "expect": {
        "error": "DualStack is enabled
but this partition does not support DualStack"
      },
      "params": {
        "Region": "us-iso-east-1",
        "UseFIPS": false,
        "UseDualStack": true
      }
    },
    {
      "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager.us-isob-east-1.sc2s.sgov.gov"
        }
      },
      "params": {
        "Region": "us-isob-east-1",
        "UseFIPS": false,
```

```
            "UseDualStack": false
          }
        },

        {
          "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack enabled",
          "expect": {
            "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
          },
          "params": {
            "Region": "us-isob-east-1",
            "UseFIPS": true,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-fips.us-isob-east-1.sc2s.sgov.gov"
            }
          },

    "params": {
            "Region": "us-isob-east-1",
            "UseFIPS": true,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack enabled",
          "expect": {
            "error": "DualStack is enabled but this partition does not support DualStack"
          },
          "params": {
            "Region": "us-isob-east-1",
            "UseFIPS": false,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For custom endpoint with region set and fips disabled and dualstack disabled",

"expect": {
            "endpoint": {
              "url": "https://example.com"
            }
          },
```

```
      "params": {
        "Region": "us-east-1",
        "UseFIPS": false,
        "UseDualStack": false,
        "Endpoint": "https://example.com"
      }
    },
    {
      "documentation": "For custom endpoint with region not set and fips disabled and dualstack
disabled",
      "expect": {
        "endpoint": {
          "url": "https://example.com"
        }
      },
      "params": {
        "UseFIPS": false,

    "UseDualStack": false,
        "Endpoint": "https://example.com"
      }
    },
    {
      "documentation": "For custom endpoint with fips enabled and dualstack disabled",
      "expect": {
        "error": "Invalid Configuration: FIPS and custom endpoint are not supported"
      },
      "params": {
        "Region": "us-east-1",
        "UseFIPS": true,
        "UseDualStack": false,
        "Endpoint": "https://example.com"
      }
    },
    {
      "documentation": "For custom endpoint with fips disabled and dualstack enabled",
      "expect": {
        "error":
 "Invalid Configuration: Dualstack and custom endpoint are not supported"
      },
      "params": {
        "Region": "us-east-1",
        "UseFIPS": false,
        "UseDualStack": true,
        "Endpoint": "https://example.com"
      }
    },
    {
```

```
                    "documentation": "Missing region",
                    "expect": {
                        "error": "Invalid Configuration: Missing Region"
                    }
                }
            ],
            "version": "1.0"
        }
    },
    "com.amazonaws.licensemanager#AcceptGrant": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#AcceptGrantRequest"

},
        "output": {
            "target": "com.amazonaws.licensemanager#AcceptGrantResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"

    }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Accepts the specified grant.</p>"
        }
    },
    "com.amazonaws.licensemanager#AcceptGrantRequest": {
```

```
      "type": "structure",
      "members": {
        "GrantArn": {
          "target": "com.amazonaws.licensemanager#Arn",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the grant.</p>",
            "smithy.api#required": {}
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#AcceptGrantResponse": {
      "type": "structure",
      "members": {
        "GrantArn": {
          "target": "com.amazonaws.licensemanager#Arn",
          "traits": {
            "smithy.api#documentation": "<p>Grant
ARN.</p>"
          }
        },
        "Status": {
          "target": "com.amazonaws.licensemanager#GrantStatus",
          "traits": {
            "smithy.api#documentation": "<p>Grant status.</p>"
          }
        },
        "Version": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Grant version.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanager#AccessDeniedException": {
      "type": "structure",
      "members": {
        "Message": {
          "target": "com.amazonaws.licensemanager#Message"
        }
      },
```

```
      "traits": {
        "aws.protocols#awsQueryError": {

"code": "ServiceAccessDenied",
          "httpResponseCode": 401
        },
        "smithy.api#documentation": "<p>Access to resource denied.</p>",
        "smithy.api#error": "client",
        "smithy.api#httpError": 401
      }
    },
    "com.amazonaws.licensemanager#ActivationOverrideBehavior": {
      "type": "enum",
      "members": {
        "DISTRIBUTED_GRANTS_ONLY": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "DISTRIBUTED_GRANTS_ONLY"
          }
        },
        "ALL_GRANTS_PERMITTED_BY_ISSUER": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "ALL_GRANTS_PERMITTED_BY_ISSUER"
          }
        }
      }
    },
    "com.amazonaws.licensemanager#AllowedOperation": {

   "type": "enum",
      "members": {
        "CREATE_GRANT": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "CreateGrant"
          }
        },
        "CHECKOUT_LICENSE": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "CheckoutLicense"
          }
        },
        "CHECKOUT_BORROW_LICENSE": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "CheckoutBorrowLicense"
```

```
            }
          },
          "CHECK_IN_LICENSE": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "CheckInLicense"
            }
          },
          "EXTEND_CONSUMPTION_LICENSE":
{
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "ExtendConsumptionLicense"
            }
          },
          "LIST_PURCHASED_LICENSES": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "ListPurchasedLicenses"
            }
          },
          "CREATE_TOKEN": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "CreateToken"
            }
          }
        }
      },
      "com.amazonaws.licensemanager#AllowedOperationList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#AllowedOperation"
        },
        "traits": {
          "smithy.api#length": {
            "min": 1,
            "max":
7
          }
        }
      },
      "com.amazonaws.licensemanager#Arn": {
        "type": "string",
        "traits": {
          "smithy.api#length": {
            "min": 0,
            "max": 2048
```

```
            },
            "smithy.api#pattern": "^arn:aws(-(cn|us-gov|iso-b|iso-c|iso-d))?:[A-Za-z0-9][A-Za-z0-9_/.-]{0,62}:[A-Za-z0-9_/.-]{0,63}:[A-Za-z0-9_/.-]{0,63}:[A-Za-z0-9][A-Za-z0-9:_/+=,@.-]{0,1023}$"
        }
    },
    "com.amazonaws.licensemanager#ArnList": {
        "type": "list",
        "member": {
            "target": "com.amazonaws.licensemanager#Arn"
        }
    },
    "com.amazonaws.licensemanager#AuthorizationException": {
        "type": "structure",
        "members": {
            "Message": {
                "target": "com.amazonaws.licensemanager#Message"
            }
        },
        "traits": {
            "aws.protocols#awsQueryError":
{
                "code": "AuthorizationFailure",
                "httpResponseCode": 403
            },
            "smithy.api#documentation": "<p>The Amazon Web Services user account does not have permission to perform the action. Check the IAM\n        policy associated with this account.</p>",
            "smithy.api#error": "client",
            "smithy.api#httpError": 403
        }
    },
    "com.amazonaws.licensemanager#AutomatedDiscoveryInformation": {
        "type": "structure",
        "members": {
            "LastRunTime": {
                "target": "com.amazonaws.licensemanager#DateTime",
                "traits": {
                    "smithy.api#documentation": "<p>Time that automated discovery last ran.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>Describes automated discovery.</p>"
        }
    },

  "com.amazonaws.licensemanager#Boolean": {
        "type": "boolean",
        "traits": {
```

```
            "smithy.api#default": false
          }
        },
        "com.amazonaws.licensemanager#BorrowConfiguration": {
          "type": "structure",
          "members": {
            "AllowEarlyCheckIn": {
              "target": "com.amazonaws.licensemanager#BoxBoolean",
              "traits": {
                "smithy.api#documentation": "<p>Indicates whether early check-ins are allowed.</p>",
                "smithy.api#required": {}
              }
            },
            "MaxTimeToLiveInMinutes": {
              "target": "com.amazonaws.licensemanager#BoxInteger",
              "traits": {
                "smithy.api#documentation": "<p>Maximum time for the borrow configuration, in minutes.</p>",
                "smithy.api#required": {}
              }
            }

},
          "traits": {
            "smithy.api#documentation": "<p>Details about a borrow configuration.</p>"
          }
        },
        "com.amazonaws.licensemanager#BoxBoolean": {
          "type": "boolean"
        },
        "com.amazonaws.licensemanager#BoxInteger": {
          "type": "integer"
        },
        "com.amazonaws.licensemanager#BoxLong": {
          "type": "long"
        },
        "com.amazonaws.licensemanager#CheckInLicense": {
          "type": "operation",
          "input": {
            "target": "com.amazonaws.licensemanager#CheckInLicenseRequest"
          },
          "output": {
            "target": "com.amazonaws.licensemanager#CheckInLicenseResponse"
          },
          "errors": [
            {
              "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
```

```
            "target": "com.amazonaws.licensemanager#AuthorizationException"

        },
            {
            "target": "com.amazonaws.licensemanager#ConflictException"
            },
            {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
            "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
            },
            {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
            "target": "com.amazonaws.licensemanager#ValidationException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Checks in the specified license. Check in a license when it is no longer
in use.</p>"
          }
        },
        "com.amazonaws.licensemanager#CheckInLicenseRequest":
 {
          "type": "structure",
          "members": {
            "LicenseConsumptionToken": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>License consumption token.</p>",
                "smithy.api#required": {}
              }
            },
            "Beneficiary": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>License beneficiary.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#input": {}
          }
```

```
    },
    "com.amazonaws.licensemanager#CheckInLicenseResponse": {
      "type": "structure",
      "members": {},
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanager#CheckoutBorrowLicense":
{
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#CheckoutBorrowLicenseRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#CheckoutBorrowLicenseResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#EntitlementNotAllowedException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
          "target": "com.amazonaws.licensemanager#NoEntitlementsAllowedException"
        },
        {
          "target":
"com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#RedirectException"
        },
        {
          "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
          "target": "com.amazonaws.licensemanager#UnsupportedDigitalSignatureMethodException"
```

```
            },
            {
               "target": "com.amazonaws.licensemanager#ValidationException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Checks out the specified license for offline use.</p>"
         }
      },
      "com.amazonaws.licensemanager#CheckoutBorrowLicenseRequest": {
         "type": "structure",
         "members":
{
            "LicenseArn": {
               "target": "com.amazonaws.licensemanager#Arn",
               "traits": {
                  "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license. The license must
use the borrow consumption configuration.</p>",
                  "smithy.api#required": {}
               }
            },
            "Entitlements": {
               "target": "com.amazonaws.licensemanager#EntitlementDataList",
               "traits": {
                  "smithy.api#documentation": "<p>License entitlements. Partial checkouts are not supported.</p>",
                  "smithy.api#required": {}
               }
            },
            "DigitalSignatureMethod": {
               "target": "com.amazonaws.licensemanager#DigitalSignatureMethod",
               "traits": {
                  "smithy.api#documentation": "<p>Digital signature method. The possible
 value is JSON Web Signature (JWS) algorithm PS384.\n         For more information, see <a
href=\"https://tools.ietf.org/html/rfc7518#section-3.5\">RFC 7518 Digital Signature with RSASSA-PSS</a>.</p>",
                  "smithy.api#required": {}
               }
            },
            "NodeId": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Node ID.</p>"
               }
            },
            "CheckoutMetadata": {
               "target": "com.amazonaws.licensemanager#MetadataList",
               "traits": {
                  "smithy.api#documentation": "<p>Information about constraints.</p>"
               }
```

```
            },
            "ClientToken": {
               "target": "com.amazonaws.licensemanager#ClientToken",
               "traits": {
                  "smithy.api#documentation":
"<p>Unique, case-sensitive identifier that you provide to ensure the idempotency of the request.</p>",
                  "smithy.api#required": {}
               }
            }
         },
         "traits": {
            "smithy.api#input": {}
         }
      },
      "com.amazonaws.licensemanager#CheckoutBorrowLicenseResponse": {
         "type": "structure",
         "members": {
            "LicenseArn": {
               "target": "com.amazonaws.licensemanager#Arn",
               "traits": {
                  "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>"
               }
            },
            "LicenseConsumptionToken": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>License consumption token.</p>"
               }
            },
            "EntitlementsAllowed":
{
               "target": "com.amazonaws.licensemanager#EntitlementDataList",
               "traits": {
                  "smithy.api#documentation": "<p>Allowed license entitlements.</p>"
               }
            },
            "NodeId": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Node ID.</p>"
               }
            },
            "SignedToken": {
               "target": "com.amazonaws.licensemanager#SignedToken",
               "traits": {
                  "smithy.api#documentation": "<p>Signed token.</p>"
               }
            },
```

```
            "IssuedAt": {
               "target": "com.amazonaws.licensemanager#ISO8601DateTime",
               "traits": {
                  "smithy.api#documentation": "<p>Date and time at which the license checkout
is issued.</p>"
               }
            },
            "Expiration": {
               "target": "com.amazonaws.licensemanager#ISO8601DateTime",
               "traits": {
                  "smithy.api#documentation": "<p>Date and time at which the license checkout expires.</p>"
               }
            },
            "CheckoutMetadata": {
               "target": "com.amazonaws.licensemanager#MetadataList",
               "traits": {
                  "smithy.api#documentation": "<p>Information about constraints.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#output": {}
         }
      },
      "com.amazonaws.licensemanager#CheckoutLicense": {
         "type": "operation",
         "input": {
            "target": "com.amazonaws.licensemanager#CheckoutLicenseRequest"
         },
         "output": {
            "target": "com.amazonaws.licensemanager#CheckoutLicenseResponse"
          },
         "errors": [
            {
               "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
               "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
               "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
               "target": "com.amazonaws.licensemanager#NoEntitlementsAllowedException"
            },
            {
               "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
```

```
            {
              "target": "com.amazonaws.licensemanager#RedirectException"
            },
            {
              "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
            },
            {
              "target":
 "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
              "target": "com.amazonaws.licensemanager#UnsupportedDigitalSignatureMethodException"
            },
            {
              "target": "com.amazonaws.licensemanager#ValidationException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Checks out the specified license.</p>\n        <note>\n        <p>If the
 account that created the license is the same that is performing the check out, you must\n        specify the account
 as the beneficiary.</p>\n        </note>"
          }
        },
        "com.amazonaws.licensemanager#CheckoutLicenseRequest": {
          "type": "structure",
          "members": {
            "ProductSKU": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Product
 SKU.</p>",
                "smithy.api#required": {}
              }
            },
            "CheckoutType": {
              "target": "com.amazonaws.licensemanager#CheckoutType",
              "traits": {
                "smithy.api#documentation": "<p>Checkout type.</p>",
                "smithy.api#required": {}
              }
            },
            "KeyFingerprint": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Key fingerprint identifying the license.</p>",
                "smithy.api#required": {}
              }
            },
```

```
            "Entitlements": {
              "target": "com.amazonaws.licensemanager#EntitlementDataList",
              "traits": {
                "smithy.api#documentation": "<p>License entitlements.</p>",

      "smithy.api#required": {}
              }
            },
            "ClientToken": {
              "target": "com.amazonaws.licensemanager#ClientToken",
              "traits": {
                "smithy.api#documentation": "<p>Unique, case-sensitive identifier that you provide to ensure the
idempotency of the request.</p>",
                "smithy.api#required": {}
              }
            },
            "Beneficiary": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>License beneficiary.</p>"
              }
            },
            "NodeId": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Node ID.</p>"
              }
            }
          },
          "traits": {

         "smithy.api#input": {}
          }
        },
        "com.amazonaws.licensemanager#CheckoutLicenseResponse": {
          "type": "structure",
          "members": {
            "CheckoutType": {
              "target": "com.amazonaws.licensemanager#CheckoutType",
              "traits": {
                "smithy.api#documentation": "<p>Checkout type.</p>"
              }
            },
            "LicenseConsumptionToken": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>License consumption token.</p>"
              }
```

```
            },
            "EntitlementsAllowed": {
               "target": "com.amazonaws.licensemanager#EntitlementDataList",
               "traits": {
                  "smithy.api#documentation": "<p>Allowed license entitlements.</p>"
               }
            },
             "SignedToken": {
               "target": "com.amazonaws.licensemanager#SignedToken",
               "traits": {
                  "smithy.api#documentation": "<p>Signed token.</p>"
               }
            },
            "NodeId": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Node ID.</p>"
               }
            },
            "IssuedAt": {
               "target": "com.amazonaws.licensemanager#ISO8601DateTime",
               "traits": {
                  "smithy.api#documentation": "<p>Date and time at which the license checkout is issued.</p>"
               }
            },
            "Expiration": {
               "target": "com.amazonaws.licensemanager#ISO8601DateTime",
               "traits": {
                  "smithy.api#documentation": "<p>Date and
time at which the license checkout expires.</p>"
               }
            },
            "LicenseArn": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the checkout license.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#output": {}
         }
      },
      "com.amazonaws.licensemanager#CheckoutType": {
         "type": "enum",
         "members": {
            "PROVISIONAL": {
               "target": "smithy.api#Unit",
```

```
            "traits": {
              "smithy.api#enumValue": "PROVISIONAL"
            }
          },
          "PERPETUAL": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "PERPETUAL"
            }
          }
        }
      },
      "com.amazonaws.licensemanager#ClientRequestToken": {
        "type": "string",
        "traits": {
          "smithy.api#length": {
            "min": 1,
            "max": 36
          }
        }
      },
      "com.amazonaws.licensemanager#ClientToken": {
        "type": "string",
        "traits": {
          "smithy.api#length": {
            "min": 0,
            "max": 2048
          },
          "smithy.api#pattern": "^\\S+$"
        }
      },
      "com.amazonaws.licensemanager#ConflictException": {
        "type": "structure",
        "members": {
          "Message": {
            "target": "com.amazonaws.licensemanager#Message"
          }
        },
        "traits": {
          "aws.protocols#awsQueryError": {
            "code": "ConflictException",
            "httpResponseCode":
409
          },
          "smithy.api#documentation": "<p>There was a conflict processing the request. Try your request
again.</p>",
          "smithy.api#error": "client",
          "smithy.api#httpError": 409
```

```
        }
      },
      "com.amazonaws.licensemanager#ConsumedLicenseSummary": {
        "type": "structure",
        "members": {
          "ResourceType": {
            "target": "com.amazonaws.licensemanager#ResourceType",
            "traits": {
              "smithy.api#documentation": "<p>Resource type of the resource consuming a license.</p>"
            }
          },
          "ConsumedLicenses": {
            "target": "com.amazonaws.licensemanager#BoxLong",
            "traits": {
              "smithy.api#documentation": "<p>Number of licenses consumed by the resource.</p>"
            }
          }
        },

    "traits": {
            "smithy.api#documentation": "<p>Details about license consumption.</p>"
        }
      },
      "com.amazonaws.licensemanager#ConsumedLicenseSummaryList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#ConsumedLicenseSummary"
        }
      },
      "com.amazonaws.licensemanager#ConsumptionConfiguration": {
        "type": "structure",
        "members": {
          "RenewType": {
            "target": "com.amazonaws.licensemanager#RenewType",
            "traits": {
              "smithy.api#documentation": "<p>Renewal frequency.</p>"
            }
          },
          "ProvisionalConfiguration": {
            "target": "com.amazonaws.licensemanager#ProvisionalConfiguration",
            "traits": {
              "smithy.api#documentation": "<p>Details about a provisional configuration.</p>"
             }
          },
          "BorrowConfiguration": {
            "target": "com.amazonaws.licensemanager#BorrowConfiguration",
            "traits": {
              "smithy.api#documentation": "<p>Details about a borrow configuration.</p>"
```

```
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Details about a consumption configuration.</p>"
        }
      },
      "com.amazonaws.licensemanager#CreateGrant": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#CreateGrantRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#CreateGrantResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target":
 "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          },
          {
            "target": "com.amazonaws.licensemanager#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Creates a grant for the specified license. A grant shares the use of
 license\n            entitlements with a specific Amazon Web Services account, an organization, or an\n
 organizational unit (OU). For more
  information, see <a href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/granted-
 licenses.html\">Granted licenses in License Manager</a> in the <i>License Manager User Guide</i>.</p>"
        }
      },
      "com.amazonaws.licensemanager#CreateGrantRequest": {
```

```
        "type": "structure",
        "members": {
          "ClientToken": {
            "target": "com.amazonaws.licensemanager#ClientToken",
            "traits": {
              "smithy.api#documentation": "<p>Unique, case-sensitive identifier that you provide to ensure the
idempotency of the request.</p>",
              "smithy.api#required": {}
            }
          },
          "GrantName": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Grant name.</p>",
              "smithy.api#required": {}

    }
          },
          "LicenseArn": {
            "target": "com.amazonaws.licensemanager#Arn",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>",
              "smithy.api#required": {}
            }
          },
          "Principals": {
            "target": "com.amazonaws.licensemanager#PrincipalArnList",
            "traits": {
              "smithy.api#documentation": "<p>The grant principals. You can specify one of the following as an
Amazon Resource Name\n        (ARN):</p>\n        <ul>\n        <li>\n        <p>An Amazon Web Services
account, which includes only the account specified.</p>\n        </li>\n        </ul>\n        <ul>\n        <li>\n
    <p>An organizational unit (OU), which includes all accounts in the OU.</p>\n        </li>\n        </ul>\n
<ul>\n
        <li>\n        <p>An organization, which will include all accounts across your organization.</p>\n
</li>\n        </ul>",
              "smithy.api#required": {}
            }
          },
          "HomeRegion": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Home Region of the grant.</p>",
              "smithy.api#required": {}
            }
          },
          "AllowedOperations": {
            "target": "com.amazonaws.licensemanager#AllowedOperationList",
            "traits": {
```

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                "smithy.api#documentation": "<p>Allowed operations for the grant.</p>",
                "smithy.api#required": {}
              }
            }
          },
          "traits": {
            "smithy.api#input": {}
          }
        },

      "com.amazonaws.licensemanager#CreateGrantResponse": {
          "type": "structure",
          "members": {
            "GrantArn": {
              "target": "com.amazonaws.licensemanager#Arn",
              "traits": {
                "smithy.api#documentation": "<p>Grant ARN.</p>"
              }
            },
            "Status": {
              "target": "com.amazonaws.licensemanager#GrantStatus",
              "traits": {
                "smithy.api#documentation": "<p>Grant status.</p>"
              }
            },
            "Version": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Grant version.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#output": {}
          }
        },
        "com.amazonaws.licensemanager#CreateGrantVersion":
{
          "type": "operation",
          "input": {
            "target": "com.amazonaws.licensemanager#CreateGrantVersionRequest"
          },
          "output": {
            "target": "com.amazonaws.licensemanager#CreateGrantVersionResponse"
          },
          "errors": [
            {
              "target": "com.amazonaws.licensemanager#AccessDeniedException"
```

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            },
            {
               "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
               "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
               "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
               "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
               "target": "com.amazonaws.licensemanager#ServerInternalException"
             },
            {
               "target": "com.amazonaws.licensemanager#ValidationException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Creates a new version of the specified grant. For more information,
see\n        <a href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/granted-
licenses.html\">Granted licenses in License Manager</a> in the <i>License Manager User Guide</i>.</p>"
         }
      },
      "com.amazonaws.licensemanager#CreateGrantVersionRequest": {
         "type": "structure",
         "members": {
            "ClientToken": {
               "target": "com.amazonaws.licensemanager#ClientToken",
               "traits": {
                  "smithy.api#documentation": "<p>Unique, case-sensitive identifier that you provide to ensure the
idempotency of the request.</p>",

   "smithy.api#required": {}
               }
            },
            "GrantArn": {
               "target": "com.amazonaws.licensemanager#Arn",
               "traits": {
                  "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the grant.</p>",
                  "smithy.api#required": {}
               }
            },
            "GrantName": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
```

```
            "smithy.api#documentation": "<p>Grant name.</p>"
          }
        },
        "AllowedOperations": {
          "target": "com.amazonaws.licensemanager#AllowedOperationList",
          "traits": {
            "smithy.api#documentation": "<p>Allowed operations for the grant.</p>"
          }
        },
        "Status": {
          "target": "com.amazonaws.licensemanager#GrantStatus",
           "traits": {
            "smithy.api#documentation": "<p>Grant status.</p>"
          }
        },
        "StatusReason": {
          "target": "com.amazonaws.licensemanager#StatusReasonMessage",
          "traits": {
            "smithy.api#documentation": "<p>Grant status reason.</p>"
          }
        },
        "SourceVersion": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Current version of the grant.</p>"
          }
        },
        "Options": {
          "target": "com.amazonaws.licensemanager#Options",
          "traits": {
            "smithy.api#documentation": "<p>The options specified for the grant.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#CreateGrantVersionResponse": {
      "type": "structure",
      "members": {
        "GrantArn": {
          "target": "com.amazonaws.licensemanager#Arn",
          "traits": {
            "smithy.api#documentation": "<p>Grant ARN.</p>"
          }
        },
        "Status": {
```

```
            "target": "com.amazonaws.licensemanager#GrantStatus",
            "traits": {
              "smithy.api#documentation": "<p>Grant status.</p>"
            }
          },
          "Version": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>New version of the grant.</p>"
            }
          }
        },
        "traits":
{
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#CreateLicense": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#CreateLicenseRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#CreateLicenseResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#RedirectException"
           },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          },
          {
            "target": "com.amazonaws.licensemanager#ValidationException"
          }
        ],
```

```
    "traits": {
      "smithy.api#documentation": "<p>Creates a license.</p>"
    }
  },
  "com.amazonaws.licensemanager#CreateLicenseConfiguration": {
    "type": "operation",
    "input": {
      "target": "com.amazonaws.licensemanager#CreateLicenseConfigurationRequest"
    },
    "output": {
      "target": "com.amazonaws.licensemanager#CreateLicenseConfigurationResponse"
    },
    "errors": [
      {
        "target": "com.amazonaws.licensemanager#AccessDeniedException"
      },
      {
        "target": "com.amazonaws.licensemanager#AuthorizationException"
       },
      {
        "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
      },
      {
        "target": "com.amazonaws.licensemanager#RateLimitExceededException"
      },
      {
        "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
      },
      {
        "target": "com.amazonaws.licensemanager#ServerInternalException"
      }
    ],
    "traits": {
      "smithy.api#documentation": "<p>Creates a license configuration.</p>\n      <p>A license configuration is an abstraction of a customer license agreement that can be\n      consumed and enforced by License Manager. Components include specifications for the license\n      type (licensing by instance, socket, CPU, or vCPU), allowed tenancy (shared tenancy, \n      Dedicated Instance, Dedicated Host, or
 all of these), license affinity  to host (how long a \n      license must be associated with a host), and the number of licenses purchased and used.</p>"
    }
  },
  "com.amazonaws.licensemanager#CreateLicenseConfigurationRequest": {
    "type": "structure",
    "members": {
      "Name": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>Name of the license configuration.</p>",
```

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            "smithy.api#required": {}
          }
        },
        "Description": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Description of the license configuration.</p>"
          }
        },
        "LicenseCountingType": {
          "target": "com.amazonaws.licensemanager#LicenseCountingType",
           "traits": {
            "smithy.api#documentation": "<p>Dimension used to track the license inventory.</p>",
            "smithy.api#required": {}
          }
        },
        "LicenseCount": {
          "target": "com.amazonaws.licensemanager#BoxLong",
          "traits": {
            "smithy.api#documentation": "<p>Number of licenses managed by the license configuration.</p>"
          }
        },
        "LicenseCountHardLimit": {
          "target": "com.amazonaws.licensemanager#BoxBoolean",
          "traits": {
            "smithy.api#documentation": "<p>Indicates whether hard or soft license enforcement is used.
Exceeding a hard limit\n        blocks the launch of new instances.</p>"
          }
        },
        "LicenseRules": {
          "target":
 "com.amazonaws.licensemanager#StringList",
          "traits": {
            "smithy.api#documentation": "<p>License rules. The syntax is #name=value (for example,
#allowedTenancy=EC2-DedicatedHost). The available rules \n        vary by dimension, as follows.</p>\n
<ul>\n          <li>\n            <p>\n              <code>Cores</code> dimension: <code>allowedTenancy</code> |\n
          <code>licenseAffinityToHost</code> |\n            <code>maximumCores</code> |
<code>minimumCores</code>\n            </p>\n          </li>\n          <li>\n            <p>\n
<code>Instances</code> dimension: <code>allowedTenancy</code> | \n            <code>maximumCores</code> |
<code>minimumCores</code> |\n            <code>maximumSockets</code> | <code>minimumSockets</code> |\n
          <code>maximumVcpus</code> | <code>minimumVcpus</code>\n            </p>\n          </li>\n
<li>\n
  <p>\n            <code>Sockets</code> dimension: <code>allowedTenancy</code> | \n
<code>licenseAffinityToHost</code> |\n            <code>maximumSockets</code> |
<code>minimumSockets</code>\n            </p>\n          </li>\n          <li>\n            <p>\n
<code>vCPUs</code> dimension: <code>allowedTenancy</code> | \n
<code>honorVcpuOptimization</code> | \n            <code>maximumVcpus</code> |
<code>minimumVcpus</code>\n            </p>\n          </li>\n        </ul>\n        <p>The unit for
```

<code>licenseAffinityToHost</code> is days and the range is 1 to 180. The possible \n values for <code>allowedTenancy</code> are <code>EC2-Default</code>, <code>EC2-DedicatedHost</code>, and \n <code>EC2-DedicatedInstance</code>. The possible values for <code>honorVcpuOptimization</code> are \n <code>True</code> and <code>False</code>. "
            }
          },

  "Tags": {
            "target": "com.amazonaws.licensemanager#TagList",
            "traits": {
              "smithy.api#documentation": " Tags to add to the license configuration. "
            }
          },
          "DisassociateWhenNotFound": {
            "target": "com.amazonaws.licensemanager#BoxBoolean",
            "traits": {
              "smithy.api#documentation": " When true, disassociates a resource when software is uninstalled. "
            }
          },
          "ProductInformationList": {
            "target": "com.amazonaws.licensemanager#ProductInformationList",
            "traits": {
              "smithy.api#documentation": " Product information. "
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#CreateLicenseConfigurationResponse": {
        "type": "structure",
        "members": {
          "LicenseConfigurationArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": " Amazon Resource Name (ARN) of the license configuration. "
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#CreateLicenseConversionTaskForResource": {
        "type": "operation",

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        "input": {
            "target": "com.amazonaws.licensemanager#CreateLicenseConversionTaskForResourceRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#CreateLicenseConversionTaskForResourceResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
             },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Creates a new license conversion task.</p>"
        }
    },
    "com.amazonaws.licensemanager#CreateLicenseConversionTaskForResourceRequest": {
        "type": "structure",
        "members": {
            "ResourceArn": {

                "target": "com.amazonaws.licensemanager#Arn",
                 "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the resource you are converting
the license type for.</p>",
                    "smithy.api#required": {}
                 }
            },
            "SourceLicenseContext": {
                "target": "com.amazonaws.licensemanager#LicenseConversionContext",
                "traits": {
                    "smithy.api#documentation": "<p>Information that identifies the license type you are converting
from. \n\n         For the structure of the source license, see <a href=\"https://docs.aws.amazon.com/license-
manager/latest/userguide/conversion-procedures.html#conversion-cli\">Convert a license type using the CLI </a> in
```

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the <i>License Manager User Guide</i>.</p>",
                    "smithy.api#required": {}
                }
            },
            "DestinationLicenseContext":
{
                "target": "com.amazonaws.licensemanager#LicenseConversionContext",
                "traits": {
                    "smithy.api#documentation": "<p>Information that identifies the license type you are converting to.
For the structure of the destination license, see <a href=\"https://docs.aws.amazon.com/license-
manager/latest/userguide/conversion-procedures.html#conversion-cli\">Convert a license type using the CLI </a> in
the <i>License Manager User Guide</i>.</p>",
                    "smithy.api#required": {}
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#CreateLicenseConversionTaskForResourceResponse": {
        "type": "structure",
        "members": {
            "LicenseConversionTaskId": {
                "target": "com.amazonaws.licensemanager#LicenseConversionTaskId",

          "traits": {
                    "smithy.api#documentation": "<p>The ID of the created license type conversion task.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#CreateLicenseManagerReportGenerator": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#CreateLicenseManagerReportGeneratorRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#CreateLicenseManagerReportGeneratorResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
```

```
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          },
          {
            "target": "com.amazonaws.licensemanager#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Creates a report generator.</p>"
        }
      },
      "com.amazonaws.licensemanager#CreateLicenseManagerReportGeneratorRequest": {
        "type": "structure",
        "members": {
          "ReportGeneratorName":
{
            "target": "com.amazonaws.licensemanager#ReportGeneratorName",
            "traits": {
              "smithy.api#documentation": "<p>Name of the report generator.</p>",
              "smithy.api#required": {}
            }
          },
          "Type": {
            "target": "com.amazonaws.licensemanager#ReportTypeList",
            "traits": {
              "smithy.api#documentation": "<p>Type of reports to generate. The following report types an be
generated:</p>\n <ul>\n <li>\n <p>License configuration report - Reports the number and
details of consumed licenses for a license configuration.</p>\n </li>\n <li>\n <p>Resource
report - Reports the tracked licenses and resource consumption for a license configuration.</p>\n </li>\n
</ul>",
              "smithy.api#required": {}

        }
          },
```

```
            "ReportContext": {
              "target": "com.amazonaws.licensemanager#ReportContext",
              "traits": {
                "smithy.api#documentation": "<p>Defines the type of license configuration the report generator
tracks.</p>",
                "smithy.api#required": {}
              }
            },
            "ReportFrequency": {
              "target": "com.amazonaws.licensemanager#ReportFrequency",
              "traits": {
                "smithy.api#documentation": "<p>Frequency by which reports are generated.  Reports can be
generated daily, monthly, or weekly.</p>",
                "smithy.api#required": {}
              }
            },
            "ClientToken": {
              "target": "com.amazonaws.licensemanager#ClientRequestToken",
              "traits": {
                "smithy.api#documentation": "<p>Unique,
 case-sensitive identifier that you provide to ensure the idempotency of the request.</p>",
                "smithy.api#required": {}
              }
            },
            "Description": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Description of the report generator.</p>"
              }
            },
            "Tags": {
              "target": "com.amazonaws.licensemanager#TagList",
              "traits": {
                "smithy.api#documentation": "<p>Tags to add to the report generator.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#input": {}
          }
        },
        "com.amazonaws.licensemanager#CreateLicenseManagerReportGeneratorResponse": {
          "type": "structure",
          "members": {
            "LicenseManagerReportGeneratorArn":
 {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
```

```
                "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the new report
generator.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#CreateLicenseRequest": {
        "type": "structure",
        "members": {
            "LicenseName": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>License name.</p>",
                    "smithy.api#required": {}
                }
            },
            "ProductName": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Product
 name.</p>",
                    "smithy.api#required": {}
                }
            },
            "ProductSKU": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Product SKU.</p>",
                    "smithy.api#required": {}
                }
            },
            "Issuer": {
                "target": "com.amazonaws.licensemanager#Issuer",
                "traits": {
                    "smithy.api#documentation": "<p>License issuer.</p>",
                    "smithy.api#required": {}
                }
            },
            "HomeRegion": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Home Region for the license.</p>",
                    "smithy.api#required": {}
```

```
    }
        },
        "Validity": {
          "target": "com.amazonaws.licensemanager#DatetimeRange",
          "traits": {
            "smithy.api#documentation": "<p>Date and time range during which the license is valid, in ISO8601-
UTC format.</p>",
            "smithy.api#required": {}
          }
        },
        "Entitlements": {
          "target": "com.amazonaws.licensemanager#EntitlementList",
          "traits": {
            "smithy.api#documentation": "<p>License entitlements.</p>",
            "smithy.api#required": {}
          }
        },
        "Beneficiary": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>License beneficiary.</p>",
            "smithy.api#required": {}
          }
        },
        "ConsumptionConfiguration": {
          "target": "com.amazonaws.licensemanager#ConsumptionConfiguration",
          "traits": {
            "smithy.api#documentation": "<p>Configuration for consumption of the license. Choose a provisional
configuration for workloads\n          running with continuous connectivity. Choose a borrow configuration for
workloads with offline\n          usage.</p>",
            "smithy.api#required": {}
          }
        },
        "LicenseMetadata": {
          "target": "com.amazonaws.licensemanager#MetadataList",
          "traits": {
            "smithy.api#documentation": "<p>Information about the license.</p>"
          }
        },
        "ClientToken": {
          "target": "com.amazonaws.licensemanager#ClientToken",
          "traits": {
            "smithy.api#documentation":
 "<p>Unique, case-sensitive identifier that you provide to ensure the idempotency of the request.</p>",
            "smithy.api#required": {}
          }
        }
      },
```

```
    "traits": {
        "smithy.api#input": {}
    }
},
"com.amazonaws.licensemanager#CreateLicenseResponse": {
    "type": "structure",
    "members": {
        "LicenseArn": {
            "target": "com.amazonaws.licensemanager#Arn",
            "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>"
            }
        },
        "Status": {
            "target": "com.amazonaws.licensemanager#LicenseStatus",
            "traits": {
                "smithy.api#documentation": "<p>License status.</p>"
            }
        },
        "Version": {
             "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>License version.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#output": {}
    }
},
"com.amazonaws.licensemanager#CreateLicenseVersion": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanager#CreateLicenseVersionRequest"
    },
    "output": {
        "target": "com.amazonaws.licensemanager#CreateLicenseVersionResponse"
    },
    "errors": [
        {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
            "target": "com.amazonaws.licensemanager#ConflictException"
```

```
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#RedirectException"
        },
        {
          "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
          "target": "com.amazonaws.licensemanager#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Creates a new version of the specified license.</p>"
      }
    },
    "com.amazonaws.licensemanager#CreateLicenseVersionRequest": {
      "type": "structure",
      "members": {
        "LicenseArn": {
          "target":
"com.amazonaws.licensemanager#Arn",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>",
            "smithy.api#required": {}
          }
        },
        "LicenseName": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>License name.</p>",
            "smithy.api#required": {}
          }
        },
        "ProductName": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Product name.</p>",
            "smithy.api#required": {}
          }
        },
        "Issuer": {
          "target": "com.amazonaws.licensemanager#Issuer",
```

```
            "traits":
{
                "smithy.api#documentation": "<p>License issuer.</p>",
                "smithy.api#required": {}
            }
        },
        "HomeRegion": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Home Region of the license.</p>",
                "smithy.api#required": {}
            }
        },
        "Validity": {
            "target": "com.amazonaws.licensemanager#DatetimeRange",
            "traits": {
                "smithy.api#documentation": "<p>Date and time range during which the license is valid, in ISO8601-
UTC format.</p>",
                "smithy.api#required": {}
            }
        },
        "LicenseMetadata": {
            "target": "com.amazonaws.licensemanager#MetadataList",
            "traits": {
                 "smithy.api#documentation": "<p>Information about the license.</p>"
            }
        },
        "Entitlements": {
            "target": "com.amazonaws.licensemanager#EntitlementList",
            "traits": {
                "smithy.api#documentation": "<p>License entitlements.</p>",
                "smithy.api#required": {}
            }
        },
        "ConsumptionConfiguration": {
            "target": "com.amazonaws.licensemanager#ConsumptionConfiguration",
            "traits": {
                "smithy.api#documentation": "<p>Configuration for consumption of the license. Choose a provisional
configuration for workloads\n          running with continuous connectivity. Choose a borrow configuration for
workloads with offline\n          usage.</p>",
                "smithy.api#required": {}
            }
        },

  "Status": {
            "target": "com.amazonaws.licensemanager#LicenseStatus",
            "traits": {
                "smithy.api#documentation": "<p>License status.</p>",
```

```
                "smithy.api#required": {}
              }
            },
            "ClientToken": {
              "target": "com.amazonaws.licensemanager#ClientToken",
              "traits": {
                "smithy.api#documentation": "<p>Unique, case-sensitive identifier that you provide to ensure the
idempotency of the request.</p>",
                "smithy.api#required": {}
              }
            },
            "SourceVersion": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Current version of the license.</p>"
              }
            }
          },
          "traits": {

 "smithy.api#input": {}
          }
        },
        "com.amazonaws.licensemanager#CreateLicenseVersionResponse": {
          "type": "structure",
          "members": {
            "LicenseArn": {
              "target": "com.amazonaws.licensemanager#Arn",
              "traits": {
                "smithy.api#documentation": "<p>License ARN.</p>"
              }
            },
            "Version": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>New version of the license.</p>"
              }
            },
            "Status": {
              "target": "com.amazonaws.licensemanager#LicenseStatus",
              "traits": {
                "smithy.api#documentation": "<p>License status.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#output":
```

```
{}
        }
    },
    "com.amazonaws.licensemanager#CreateToken": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#CreateTokenRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#CreateTokenResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#RedirectException"
            },
            {
                "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },

    {
                "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Creates a long-lived token.</p>\n         <p>A refresh token is a JWT token used to get an access token. With an access token,\n          you can call AssumeRoleWithWebIdentity to get role credentials that you can use to \n          call License Manager to manage the specified license.</p>"
        }
    },
    "com.amazonaws.licensemanager#CreateTokenRequest": {
        "type": "structure",
        "members": {
            "LicenseArn": {
```

```
            "target": "com.amazonaws.licensemanager#Arn",
            "traits":
{
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license. The ARN is mapped to the aud claim of the\n          JWT token.</p>",
                "smithy.api#required": {}
            }
        },
        "RoleArns": {
            "target": "com.amazonaws.licensemanager#ArnList",
            "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the IAM roles to embed in the token. \n          License Manager does not check whether the roles are in use.</p>"
            }
        },
        "ExpirationInDays": {
            "target": "com.amazonaws.licensemanager#Integer",
            "traits": {
                "smithy.api#documentation": "<p>Token expiration, in days, counted from token creation. The default is 365 days.</p>"
            }
        },
        "TokenProperties": {
             "target": "com.amazonaws.licensemanager#MaxSize3StringList",
            "traits": {
                "smithy.api#documentation": "<p>Data specified by the caller to be included in the JWT token. The data is mapped\n          to the amr claim of the JWT token.</p>"
            }
        },
        "ClientToken": {
            "target": "com.amazonaws.licensemanager#ClientToken",
            "traits": {
                "smithy.api#documentation": "<p>Idempotency token, valid for 10 minutes.</p>",
                "smithy.api#required": {}
            }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#CreateTokenResponse": {
      "type": "structure",
      "members": {
        "TokenId": {
          "target": "com.amazonaws.licensemanager#String",
```

```
        "traits": {
            "smithy.api#documentation": "<p>Token ID.</p>"
          }
        },
        "TokenType": {
          "target": "com.amazonaws.licensemanager#TokenType",
          "traits": {
            "smithy.api#documentation": "<p>Token type.</p>"
          }
        },
        "Token": {
          "target": "com.amazonaws.licensemanager#TokenString",
          "traits": {
            "smithy.api#documentation": "<p>Refresh token, encoded as a JWT token.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanager#DateTime": {
      "type": "timestamp"
    },
    "com.amazonaws.licensemanager#DatetimeRange": {
      "type": "structure",
      "members": {
        "Begin": {
          "target": "com.amazonaws.licensemanager#ISO8601DateTime",
          "traits": {
            "smithy.api#documentation": "<p>Start of the time range.</p>",
            "smithy.api#required": {}
          }
        },
        "End": {
          "target": "com.amazonaws.licensemanager#ISO8601DateTime",
          "traits": {
            "smithy.api#documentation": "<p>End of the time range.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>Describes a time range, in ISO8601-UTC format.</p>"
      }
    },
    "com.amazonaws.licensemanager#DeleteGrant": {
      "type": "operation",
      "input": {
```

```
            "target": "com.amazonaws.licensemanager#DeleteGrantRequest"
          },
          "output": {
            "target": "com.amazonaws.licensemanager#DeleteGrantResponse"
          },
          "errors": [
            {
              "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
              "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
              "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
              "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
              "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
              "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
              "target": "com.amazonaws.licensemanager#ValidationException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Deletes
the specified grant.</p>"
          }
        },
        "com.amazonaws.licensemanager#DeleteGrantRequest": {
          "type": "structure",
          "members": {
            "GrantArn": {
              "target": "com.amazonaws.licensemanager#Arn",
              "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the grant.</p>",
                "smithy.api#required": {}
              }
            },
            "StatusReason": {
              "target": "com.amazonaws.licensemanager#StatusReasonMessage",
              "traits": {
                "smithy.api#documentation": "<p>The Status reason for the delete request.</p>"
              }
```

```
            },
            "Version": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Current version of the
grant.</p>",
                  "smithy.api#required": {}
               }
            }
         },
         "traits": {
            "smithy.api#input": {}
         }
      },
      "com.amazonaws.licensemanager#DeleteGrantResponse": {
         "type": "structure",
         "members": {
            "GrantArn": {
               "target": "com.amazonaws.licensemanager#Arn",
               "traits": {
                  "smithy.api#documentation": "<p>Grant ARN.</p>"
               }
            },
            "Status": {
               "target": "com.amazonaws.licensemanager#GrantStatus",
               "traits": {
                  "smithy.api#documentation": "<p>Grant status.</p>"
               }
            },
            "Version": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation":
"<p>Grant version.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#output": {}
         }
      },
      "com.amazonaws.licensemanager#DeleteLicense": {
         "type": "operation",
         "input": {
            "target": "com.amazonaws.licensemanager#DeleteLicenseRequest"
         },
         "output": {
            "target": "com.amazonaws.licensemanager#DeleteLicenseResponse"
```

```
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#ConflictException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"

},
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#RedirectException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          },
          {
            "target": "com.amazonaws.licensemanager#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Deletes the specified license.</p>"
        }
      },
      "com.amazonaws.licensemanager#DeleteLicenseConfiguration": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#DeleteLicenseConfigurationRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#DeleteLicenseConfigurationResponse"
        },

      "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
```

```
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Deletes the specified license configuration.</p>\n        <p>You cannot delete a license configuration that is in use.</p>"
        }
    },
    "com.amazonaws.licensemanager#DeleteLicenseConfigurationRequest": {
        "type": "structure",
        "members":
{
            "LicenseConfigurationArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>ID of the license configuration.</p>",
                    "smithy.api#required": {}
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#DeleteLicenseConfigurationResponse": {
        "type": "structure",
        "members": {},
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#DeleteLicenseManagerReportGenerator": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#DeleteLicenseManagerReportGeneratorRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#DeleteLicenseManagerReportGeneratorResponse"
         },
        "errors": [
            {
```

```
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          },
          {
            "target": "com.amazonaws.licensemanager#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Deletes the specified report generator.</p>\n          <p>This action deletes the report generator, which stops it from generating future reports.\n          The action cannot be reversed. It has no effect on the previous reports from this generator.</p>"
        }
      },
      "com.amazonaws.licensemanager#DeleteLicenseManagerReportGeneratorRequest": {
        "type": "structure",
        "members": {
          "LicenseManagerReportGeneratorArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the report generator to be deleted.</p>",
              "smithy.api#required": {}
            }
          }
        },
        "traits": {

  "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#DeleteLicenseManagerReportGeneratorResponse": {
```

```
      "type": "structure",
      "members": {},
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanager#DeleteLicenseRequest": {
      "type": "structure",
      "members": {
        "LicenseArn": {
          "target": "com.amazonaws.licensemanager#Arn",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>",
            "smithy.api#required": {}
          }
        },
        "SourceVersion": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Current version of the license.</p>",
            "smithy.api#required":
{}
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#DeleteLicenseResponse": {
      "type": "structure",
      "members": {
        "Status": {
          "target": "com.amazonaws.licensemanager#LicenseDeletionStatus",
          "traits": {
            "smithy.api#documentation": "<p>License status.</p>"
          }
        },
        "DeletionDate": {
          "target": "com.amazonaws.licensemanager#ISO8601DateTime",
          "traits": {
            "smithy.api#documentation": "<p>Date when the license is deleted.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#output": {}
      }
```

```
    },
    "com.amazonaws.licensemanager#DeleteToken": {
        "type": "operation",
         "input": {
            "target": "com.amazonaws.licensemanager#DeleteTokenRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#DeleteTokenResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#RedirectException"
            },
            {
                "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },

    {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Deletes the specified token. Must be called in the license home
Region.</p>"
        }
    },
    "com.amazonaws.licensemanager#DeleteTokenRequest": {
        "type": "structure",
        "members": {
            "TokenId": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Token ID.</p>",
                    "smithy.api#required": {}
                }
            }
```

```
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#DeleteTokenResponse": {
        "type": "structure",
        "members": {},
        "traits": {
            "smithy.api#output": {}

        }
    },
    "com.amazonaws.licensemanager#DigitalSignatureMethod": {
        "type": "enum",
        "members": {
            "JWT_PS384": {
                "target": "smithy.api#Unit",
                "traits": {
                    "smithy.api#enumValue": "JWT_PS384"
                }
            }
        }
    },
    "com.amazonaws.licensemanager#Entitlement": {
        "type": "structure",
        "members": {
            "Name": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Entitlement name.</p>",
                    "smithy.api#required": {}
                }
            },
            "Value": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Entitlement resource. Use only
if the unit is None.</p>"
                }
            },
            "MaxCount": {
                "target": "com.amazonaws.licensemanager#Long",
                "traits": {
                    "smithy.api#documentation": "<p>Maximum entitlement count. Use if the unit is not None.</p>"
                }
            },
            "Overage": {
```

```
            "target": "com.amazonaws.licensemanager#BoxBoolean",
            "traits": {
              "smithy.api#documentation": "<p>Indicates whether overages are allowed.</p>"
            }
          },
          "Unit": {
            "target": "com.amazonaws.licensemanager#EntitlementUnit",
            "traits": {
              "smithy.api#documentation": "<p>Entitlement unit.</p>",
              "smithy.api#required": {}
            }
          },
          "AllowCheckIn": {
            "target":
"com.amazonaws.licensemanager#BoxBoolean",
            "traits": {
              "smithy.api#documentation": "<p>Indicates whether check-ins are allowed.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Describes a resource entitled for use with a license.</p>"
        }
      },
      "com.amazonaws.licensemanager#EntitlementData": {
        "type": "structure",
        "members": {
          "Name": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Entitlement data name.</p>",
              "smithy.api#required": {}
            }
          },
          "Value": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Entitlement
data value.</p>"
            }
          },
          "Unit": {
            "target": "com.amazonaws.licensemanager#EntitlementDataUnit",
            "traits": {
              "smithy.api#documentation": "<p>Entitlement data unit.</p>",
              "smithy.api#required": {}
            }
          }
```

```
        },
        "traits": {
            "smithy.api#documentation": "<p>Data associated with an entitlement resource.</p>"
        }
    },
    "com.amazonaws.licensemanager#EntitlementDataList": {
        "type": "list",
        "member": {
            "target": "com.amazonaws.licensemanager#EntitlementData"
        }
    },
    "com.amazonaws.licensemanager#EntitlementDataUnit": {
        "type": "enum",
        "members": {
            "COUNT": {
                "target": "smithy.api#Unit",
                "traits": {

"smithy.api#enumValue": "Count"
                }
            },
            "NONE": {
                "target": "smithy.api#Unit",
                "traits": {
                    "smithy.api#enumValue": "None"
                }
            },
            "SECONDS": {
                "target": "smithy.api#Unit",
                "traits": {
                    "smithy.api#enumValue": "Seconds"
                }
            },
            "MICROSECONDS": {
                "target": "smithy.api#Unit",
                "traits": {
                    "smithy.api#enumValue": "Microseconds"
                }
            },
            "MILLISECONDS": {
                "target": "smithy.api#Unit",
                "traits": {
                    "smithy.api#enumValue": "Milliseconds"
                }
            },
            "BYTES": {
                "target": "smithy.api#Unit",
```

```
            "traits": {
                "smithy.api#enumValue": "Bytes"
            }
        },
        "KILOBYTES": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Kilobytes"
            }
        },
        "MEGABYTES": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Megabytes"
            }
        },
        "GIGABYTES": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Gigabytes"
            }
        },
        "TERABYTES": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Terabytes"
            }
        },
        "BITS":
{
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Bits"
            }
        },
        "KILOBITS": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Kilobits"
            }
        },
        "MEGABITS": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Megabits"
            }
        },
        "GIGABITS": {
```

```
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Gigabits"
            }
        },
        "TERABITS": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Terabits"

}
        },
        "PERCENT": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Percent"
            }
        },
        "BYTES_PER_SECOND": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Bytes/Second"
            }
        },
        "KILOBYTES_PER_SECOND": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Kilobytes/Second"
            }
        },
        "MEGABYTES_PER_SECOND": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Megabytes/Second"
            }
        },
        "GIGABYTES_PER_SECOND": {
            "target": "smithy.api#Unit",
             "traits": {
                "smithy.api#enumValue": "Gigabytes/Second"
            }
        },
        "TERABYTES_PER_SECOND": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Terabytes/Second"
            }
        },
```

```
            "BITS_PER_SECOND": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "Bits/Second"
              }
            },
            "KILOBITS_PER_SECOND": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "Kilobits/Second"
              }
            },
            "MEGABITS_PER_SECOND": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue":
"Megabits/Second"
              }
            },
            "GIGABITS_PER_SECOND": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "Gigabits/Second"
              }
            },
            "TERABITS_PER_SECOND": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "Terabits/Second"
              }
            },
            "COUNT_PER_SECOND": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "Count/Second"
              }
            }
          }
        },
        "com.amazonaws.licensemanager#EntitlementList": {
          "type": "list",
          "member": {
            "target": "com.amazonaws.licensemanager#Entitlement"
          }
        },
        "com.amazonaws.licensemanager#EntitlementNotAllowedException":
{
          "type": "structure",
```

```
      "members": {
        "Message": {
          "target": "com.amazonaws.licensemanager#Message"
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>The entitlement is not allowed.</p>",
        "smithy.api#error": "client",
        "smithy.api#httpError": 400
      }
    },
    "com.amazonaws.licensemanager#EntitlementUnit": {
      "type": "enum",
      "members": {
        "COUNT": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Count"
          }
        },
        "NONE": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "None"
          }
        },
        "SECONDS":
{
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Seconds"
          }
        },
        "MICROSECONDS": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Microseconds"
          }
        },
        "MILLISECONDS": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Milliseconds"
          }
        },
        "BYTES": {
          "target": "smithy.api#Unit",
          "traits": {
```

```
        "smithy.api#enumValue": "Bytes"
      }
    },
    "KILOBYTES": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "Kilobytes"
       }
    },
    "MEGABYTES": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "Megabytes"
      }
    },
    "GIGABYTES": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "Gigabytes"
      }
    },
    "TERABYTES": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "Terabytes"
      }
    },
    "BITS": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "Bits"
      }
    },
    "KILOBITS": {
      "target": "smithy.api#Unit",
      "traits": {

       "smithy.api#enumValue": "Kilobits"
      }
    },
    "MEGABITS": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "Megabits"
      }
    },
    "GIGABITS": {
      "target": "smithy.api#Unit",
```

```
            "traits": {
                "smithy.api#enumValue": "Gigabits"
            }
        },
        "TERABITS": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Terabits"
            }
        },
        "PERCENT": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Percent"
            }
        },
        "BYTES_PER_SECOND": {
            "target":
"smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Bytes/Second"
            }
        },
        "KILOBYTES_PER_SECOND": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Kilobytes/Second"
            }
        },
        "MEGABYTES_PER_SECOND": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Megabytes/Second"
            }
        },
        "GIGABYTES_PER_SECOND": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Gigabytes/Second"
            }
        },
        "TERABYTES_PER_SECOND": {
            "target": "smithy.api#Unit",
            "traits": {

"smithy.api#enumValue": "Terabytes/Second"
            }
        },
```

```
        "BITS_PER_SECOND": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Bits/Second"
          }
        },
        "KILOBITS_PER_SECOND": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Kilobits/Second"
          }
        },
        "MEGABITS_PER_SECOND": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Megabits/Second"
          }
        },
        "GIGABITS_PER_SECOND": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Gigabits/Second"
          }
        },

    "TERABITS_PER_SECOND": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Terabits/Second"
          }
        },
        "COUNT_PER_SECOND": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Count/Second"
          }
        }
      }
    },
    "com.amazonaws.licensemanager#EntitlementUsage": {
      "type": "structure",
      "members": {
        "Name": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Entitlement usage name.</p>",
            "smithy.api#required": {}
          }
```

```
            },
            "ConsumedValue": {
               "target": "com.amazonaws.licensemanager#String",

              "traits": {
                    "smithy.api#documentation": "<p>Resource usage consumed.</p>",
                    "smithy.api#required": {}
               }
            },
            "MaxCount": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Maximum entitlement usage count.</p>"
               }
            },
            "Unit": {
               "target": "com.amazonaws.licensemanager#EntitlementDataUnit",
               "traits": {
                  "smithy.api#documentation": "<p>Entitlement usage unit.</p>",
                  "smithy.api#required": {}
               }
            }
         },
         "traits": {
            "smithy.api#documentation": "<p>Usage associated with an entitlement resource.</p>"
         }
      },
      "com.amazonaws.licensemanager#EntitlementUsageList":
{
         "type": "list",
         "member": {
            "target": "com.amazonaws.licensemanager#EntitlementUsage"
         }
      },
      "com.amazonaws.licensemanager#ExtendLicenseConsumption": {
         "type": "operation",
         "input": {
            "target": "com.amazonaws.licensemanager#ExtendLicenseConsumptionRequest"
         },
         "output": {
            "target": "com.amazonaws.licensemanager#ExtendLicenseConsumptionResponse"
         },
         "errors": [
            {
               "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
               "target": "com.amazonaws.licensemanager#AuthorizationException"
```

```
            },
            {
               "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
               "target": "com.amazonaws.licensemanager#RateLimitExceededException"
             },
            {
               "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
            },
            {
               "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
               "target": "com.amazonaws.licensemanager#ValidationException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Extends the expiration date for license consumption.</p>"
         }
      },
      "com.amazonaws.licensemanager#ExtendLicenseConsumptionRequest": {
         "type": "structure",
         "members": {
            "LicenseConsumptionToken": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>License consumption token.</p>",
                  "smithy.api#required": {}

          }
            },
            "DryRun": {
               "target": "com.amazonaws.licensemanager#Boolean",
               "traits": {
                  "smithy.api#default": false,
                  "smithy.api#documentation": "<p>Checks whether you have the required permissions for the action,
without actually making the request. Provides an error response if you do not have the required permissions.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#input": {}
         }
      },
      "com.amazonaws.licensemanager#ExtendLicenseConsumptionResponse": {
         "type": "structure",
         "members": {
```

```
            "LicenseConsumptionToken": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>License consumption token.</p>"
               }
            },

            "Expiration": {
               "target": "com.amazonaws.licensemanager#ISO8601DateTime",
               "traits": {
                  "smithy.api#documentation": "<p>Date and time at which the license consumption expires.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#output": {}
         }
      },
      "com.amazonaws.licensemanager#FailedDependencyException": {
         "type": "structure",
         "members": {
            "Message": {
               "target": "com.amazonaws.licensemanager#Message"
            },
            "ErrorCode": {
               "target": "com.amazonaws.licensemanager#String"
            }
         },
         "traits": {
            "aws.protocols#awsQueryError": {
               "code": "FailedDependency",
               "httpResponseCode": 424
            },
            "smithy.api#documentation":
"<p>A dependency required to run the API is missing.</p>",
            "smithy.api#error": "client",
            "smithy.api#httpError": 424
         }
      },
      "com.amazonaws.licensemanager#Filter": {
         "type": "structure",
         "members": {
            "Name": {
               "target": "com.amazonaws.licensemanager#FilterName",
               "traits": {
                  "smithy.api#documentation": "<p>Name of the filter. Filter names are case-sensitive.</p>"
               }
            },
```

```
            "Values": {
               "target": "com.amazonaws.licensemanager#FilterValues",
               "traits": {
                  "smithy.api#documentation": "<p>The value of the filter, which is case-sensitive. You can only specify one value for the filter.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#documentation": "<p>A filter
 name and value pair that is used to return more specific results from a\n         describe operation. Filters can be used to match a set of resources by specific criteria,\n         such as tags, attributes, or IDs.</p>"
         }
      },
      "com.amazonaws.licensemanager#FilterLimitExceededException": {
         "type": "structure",
         "members": {
            "Message": {
               "target": "com.amazonaws.licensemanager#Message"
            }
         },
         "traits": {
            "aws.protocols#awsQueryError": {
               "code": "FilterLimitExceeded",
               "httpResponseCode": 400
            },
            "smithy.api#documentation": "<p>The request uses too many filters or too many filter values.</p>",
            "smithy.api#error": "client",
            "smithy.api#httpError": 400
         }
      },
      "com.amazonaws.licensemanager#FilterList": {
         "type": "list",
          "member": {
            "target": "com.amazonaws.licensemanager#Filter"
         }
      },
      "com.amazonaws.licensemanager#FilterName": {
         "type": "string"
      },
      "com.amazonaws.licensemanager#FilterValue": {
         "type": "string"
      },
      "com.amazonaws.licensemanager#FilterValues": {
         "type": "list",
         "member": {
            "target": "com.amazonaws.licensemanager#FilterValue",
            "traits": {
```

```
            "smithy.api#xmlName": "item"
          }
        }
      },
      "com.amazonaws.licensemanager#Filters": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#Filter",
          "traits": {
            "smithy.api#xmlName": "item"
          }
        }
      },
      "com.amazonaws.licensemanager#GetAccessToken": {
        "type": "operation",
        "input": {
           "target": "com.amazonaws.licensemanager#GetAccessTokenRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#GetAccessTokenResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          },
          {
            "target": "com.amazonaws.licensemanager#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Gets a temporary access token to use with
AssumeRoleWithWebIdentity. Access
 tokens\n          are valid for one hour.</p>"
        }
      },
      "com.amazonaws.licensemanager#GetAccessTokenRequest": {
        "type": "structure",
        "members": {
          "Token": {
```

```
            "target": "com.amazonaws.licensemanager#TokenString",
            "traits": {
              "smithy.api#documentation": "<p>Refresh token, encoded as a JWT token.</p>",
              "smithy.api#required": {}
            }
          },
          "TokenProperties": {
            "target": "com.amazonaws.licensemanager#MaxSize3StringList",
            "traits": {
              "smithy.api#documentation": "<p>Token properties to validate against those present in the JWT
token.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#GetAccessTokenResponse":
{
        "type": "structure",
        "members": {
          "AccessToken": {
            "target": "com.amazonaws.licensemanager#TokenString",
            "traits": {
              "smithy.api#documentation": "<p>Temporary access token.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#GetGrant": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#GetGrantRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#GetGrantResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
```

```
    },
        {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
            "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
        },
        {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
            "target": "com.amazonaws.licensemanager#ValidationException"
        }
    ],
    "traits": {
        "smithy.api#documentation": "<p>Gets detailed information about the specified grant.</p>"
    }
},
"com.amazonaws.licensemanager#GetGrantRequest": {
    "type": "structure",
    "members": {
        "GrantArn": {
            "target": "com.amazonaws.licensemanager#Arn",
             "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the grant.</p>",
                "smithy.api#required": {}
            }
        },
        "Version": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Grant version.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#input": {}
    }
},
"com.amazonaws.licensemanager#GetGrantResponse": {
    "type": "structure",
    "members": {
        "Grant": {
            "target": "com.amazonaws.licensemanager#Grant",
            "traits": {
```

```
            "smithy.api#documentation": "<p>Grant details.</p>"
          }
        }
    },
    "traits": {

"smithy.api#output": {}
    }
},
"com.amazonaws.licensemanager#GetLicense": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanager#GetLicenseRequest"
    },
    "output": {
        "target": "com.amazonaws.licensemanager#GetLicenseResponse"
    },
    "errors": [
        {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
            "target": "com.amazonaws.licensemanager#ServerInternalException"

 },
        {
            "target": "com.amazonaws.licensemanager#ValidationException"
        }
    ],
    "traits": {
        "smithy.api#documentation": "<p>Gets detailed information about the specified license.</p>"
    }
},
"com.amazonaws.licensemanager#GetLicenseConfiguration": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanager#GetLicenseConfigurationRequest"
    },
    "output": {
```

```
            "target": "com.amazonaws.licensemanager#GetLicenseConfigurationResponse"
          },
          "errors": [
            {
              "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
              "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
              "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
             },
            {
              "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
              "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Gets detailed information about the specified license
configuration.</p>"
          }
        },
        "com.amazonaws.licensemanager#GetLicenseConfigurationRequest": {
          "type": "structure",
          "members": {
            "LicenseConfigurationArn": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license
configuration.</p>",
                "smithy.api#required": {}
              }
            }
          },
          "traits":
 {
            "smithy.api#input": {}
          }
        },
        "com.amazonaws.licensemanager#GetLicenseConfigurationResponse": {
          "type": "structure",
          "members": {
            "LicenseConfigurationId": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Unique ID for the license configuration.</p>"
```

```
    }
  },
  "LicenseConfigurationArn": {
    "target": "com.amazonaws.licensemanager#String",
    "traits": {
      "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license configuration.</p>"
    }
  },
  "Name": {
    "target": "com.amazonaws.licensemanager#String",
    "traits": {
      "smithy.api#documentation": "<p>Name of the license configuration.</p>"
     }
  },
  "Description": {
    "target": "com.amazonaws.licensemanager#String",
    "traits": {
      "smithy.api#documentation": "<p>Description of the license configuration.</p>"
    }
  },
  "LicenseCountingType": {
    "target": "com.amazonaws.licensemanager#LicenseCountingType",
    "traits": {
      "smithy.api#documentation": "<p>Dimension for which the licenses are counted.</p>"
    }
  },
  "LicenseRules": {
    "target": "com.amazonaws.licensemanager#StringList",
    "traits": {
      "smithy.api#documentation": "<p>License rules.</p>"
    }
  },
  "LicenseCount": {
    "target": "com.amazonaws.licensemanager#BoxLong",

   "traits": {
      "smithy.api#documentation": "<p>Number of available licenses.</p>"
    }
  },
  "LicenseCountHardLimit": {
    "target": "com.amazonaws.licensemanager#BoxBoolean",
    "traits": {
      "smithy.api#documentation": "<p>Sets the number of available licenses as a hard limit.</p>"
    }
  },
  "ConsumedLicenses": {
    "target": "com.amazonaws.licensemanager#BoxLong",
    "traits": {
```

```
            "smithy.api#documentation": "<p>Number of licenses assigned to resources.</p>"
          }
        },
        "Status": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>License configuration status.</p>"
          }

    },
        "OwnerAccountId": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Account ID of the owner of the license configuration.</p>"
          }
        },
        "ConsumedLicenseSummaryList": {
          "target": "com.amazonaws.licensemanager#ConsumedLicenseSummaryList",
          "traits": {
            "smithy.api#documentation": "<p>Summaries of the licenses consumed by resources.</p>"
          }
        },
        "ManagedResourceSummaryList": {
          "target": "com.amazonaws.licensemanager#ManagedResourceSummaryList",
          "traits": {
            "smithy.api#documentation": "<p>Summaries of the managed resources.</p>"
          }
        },
        "Tags": {
          "target": "com.amazonaws.licensemanager#TagList",
           "traits": {
            "smithy.api#documentation": "<p>Tags for the license configuration.</p>"
          }
        },
        "ProductInformationList": {
          "target": "com.amazonaws.licensemanager#ProductInformationList",
          "traits": {
            "smithy.api#documentation": "<p>Product information.</p>"
          }
        },
        "AutomatedDiscoveryInformation": {
          "target": "com.amazonaws.licensemanager#AutomatedDiscoveryInformation",
          "traits": {
            "smithy.api#documentation": "<p>Automated discovery information.</p>"
          }
        },
        "DisassociateWhenNotFound": {
          "target": "com.amazonaws.licensemanager#BoxBoolean",
```

```
            "traits": {
              "smithy.api#documentation": "<p>When
 true, disassociates a resource when software is uninstalled.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#GetLicenseConversionTask": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#GetLicenseConversionTaskRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#GetLicenseConversionTaskResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {

 "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Gets information about the specified license type conversion task.</p>"
        }
      },
      "com.amazonaws.licensemanager#GetLicenseConversionTaskRequest": {
        "type": "structure",
        "members": {
          "LicenseConversionTaskId": {
            "target": "com.amazonaws.licensemanager#LicenseConversionTaskId",
            "traits": {
              "smithy.api#documentation": "<p>ID of the license type conversion task to retrieve information
on.</p>",
```

```
            "smithy.api#required": {}
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#GetLicenseConversionTaskResponse": {
      "type": "structure",
      "members": {
        "LicenseConversionTaskId": {
          "target": "com.amazonaws.licensemanager#LicenseConversionTaskId",
          "traits": {
            "smithy.api#documentation": "<p>ID of the license type conversion task.</p>"
          }
        },
        "ResourceArn": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Names (ARN) of the resources the license conversion task is associated with.</p>"
          }
        },
        "SourceLicenseContext": {
          "target": "com.amazonaws.licensemanager#LicenseConversionContext",
          "traits": {
            "smithy.api#documentation": "<p>Information about the license type converted from.</p>"
          }
        },
        "DestinationLicenseContext": {
          "target": "com.amazonaws.licensemanager#LicenseConversionContext",
          "traits": {
            "smithy.api#documentation": "<p>Information about the license type converted to.</p>"
          }
        },
        "StatusMessage": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>The status message for the conversion task.</p>"
          }
        },
        "Status": {
          "target": "com.amazonaws.licensemanager#LicenseConversionTaskStatus",
          "traits": {
            "smithy.api#documentation": "<p>Status of the license type conversion task.</p>"
          }
```

```
            },

  "StartTime": {
                "target": "com.amazonaws.licensemanager#DateTime",
                "traits": {
                    "smithy.api#documentation": "<p>Time at which the license type conversion task was started .</p>"
                }
            },
            "LicenseConversionTime": {
                "target": "com.amazonaws.licensemanager#DateTime",
                "traits": {
                    "smithy.api#documentation": "<p>Amount of time to complete the license type conversion.</p>"
                }
            },
            "EndTime": {
                "target": "com.amazonaws.licensemanager#DateTime",
                "traits": {
                    "smithy.api#documentation": "<p>Time at which the license type conversion task was
completed.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#GetLicenseManagerReportGenerator":
{
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#GetLicenseManagerReportGeneratorRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#GetLicenseManagerReportGeneratorResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
```

```
            {
                "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"

            },
            {
                "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Gets information about the specified report generator.</p>"
        }
    },
    "com.amazonaws.licensemanager#GetLicenseManagerReportGeneratorRequest": {
        "type": "structure",
        "members": {
            "LicenseManagerReportGeneratorArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the report generator.</p>",
                    "smithy.api#required":
{}
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#GetLicenseManagerReportGeneratorResponse": {
        "type": "structure",
        "members": {
            "ReportGenerator": {
                "target": "com.amazonaws.licensemanager#ReportGenerator",
                "traits": {
                    "smithy.api#documentation": "<p>A report generator that creates periodic reports about your license
configurations.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#output": {}
        }
```

```
    },
    "com.amazonaws.licensemanager#GetLicenseRequest": {
      "type": "structure",
      "members": {
        "LicenseArn": {
          "target": "com.amazonaws.licensemanager#Arn",
          "traits": {

"smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>",
            "smithy.api#required": {}
          }
        },
        "Version": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>License version.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#GetLicenseResponse": {
      "type": "structure",
      "members": {
        "License": {
          "target": "com.amazonaws.licensemanager#License",
          "traits": {
            "smithy.api#documentation": "<p>License details.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#output": {}
      }
    },

  "com.amazonaws.licensemanager#GetLicenseUsage": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#GetLicenseUsageRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#GetLicenseUsageResponse"
      },
      "errors": [
        {
```

```
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          },
          {

  "target": "com.amazonaws.licensemanager#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Gets detailed information about the usage of the specified license.</p>"
        }
      },
      "com.amazonaws.licensemanager#GetLicenseUsageRequest": {
        "type": "structure",
        "members": {
          "LicenseArn": {
            "target": "com.amazonaws.licensemanager#Arn",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>",
              "smithy.api#required": {}
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#GetLicenseUsageResponse": {
        "type": "structure",
        "members": {
          "LicenseUsage": {
            "target":
"com.amazonaws.licensemanager#LicenseUsage",
            "traits": {
              "smithy.api#documentation": "<p>License usage details.</p>"
            }
          }
```

```
        },
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#GetServiceSettings": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#GetServiceSettingsRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#GetServiceSettingsResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
             },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Gets the License Manager settings for the current Region.</p>"
        }
    },
    "com.amazonaws.licensemanager#GetServiceSettingsRequest": {
        "type": "structure",
        "members": {},
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#GetServiceSettingsResponse": {
        "type": "structure",
        "members": {
            "S3BucketArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Regional S3 bucket path for storing reports, license trail event data,
discovery data,\n         and so on.</p>"
```

```
 }
            },
            "SnsTopicArn": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>SNS topic configured to receive notifications from License
Manager.</p>"
               }
            },
            "OrganizationConfiguration": {
               "target": "com.amazonaws.licensemanager#OrganizationConfiguration",
               "traits": {
                  "smithy.api#documentation": "<p>Indicates whether Organizations is integrated with License
Manager for\n         cross-account discovery.</p>"
               }
            },
            "EnableCrossAccountsDiscovery": {
               "target": "com.amazonaws.licensemanager#BoxBoolean",
               "traits": {
                  "smithy.api#documentation": "<p>Indicates whether cross-account discovery is enabled.</p>"
               }

         },
            "LicenseManagerResourceShareArn": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the resource share. The License
Manager management account \n         provides member accounts with access to this share.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#output": {}
         }
      },
      "com.amazonaws.licensemanager#Grant": {
         "type": "structure",
         "members": {
            "GrantArn": {
               "target": "com.amazonaws.licensemanager#Arn",
               "traits": {
                  "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the grant.</p>",
                  "smithy.api#required": {}
               }
            },
            "GrantName": {
```

```
 "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Grant name.</p>",
                    "smithy.api#required": {}
                }
            },
            "ParentArn": {
                "target": "com.amazonaws.licensemanager#Arn",
                "traits": {
                    "smithy.api#documentation": "<p>Parent ARN.</p>",
                    "smithy.api#required": {}
                }
            },
            "LicenseArn": {
                "target": "com.amazonaws.licensemanager#Arn",
                "traits": {
                    "smithy.api#documentation": "<p>License ARN.</p>",
                    "smithy.api#required": {}
                }
            },
            "GranteePrincipalArn": {
                "target": "com.amazonaws.licensemanager#Arn",
                "traits": {

"smithy.api#documentation": "<p>The grantee principal ARN.</p>",
                    "smithy.api#required": {}
                }
            },
            "HomeRegion": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Home Region of the grant.</p>",
                    "smithy.api#required": {}
                }
            },
            "GrantStatus": {
                "target": "com.amazonaws.licensemanager#GrantStatus",
                "traits": {
                    "smithy.api#documentation": "<p>Grant status.</p>",
                    "smithy.api#required": {}
                }
            },
            "StatusReason": {
                "target": "com.amazonaws.licensemanager#StatusReasonMessage",
                "traits": {
                    "smithy.api#documentation": "<p>Grant status reason.</p>"
                 }
            },
```

```
            "Version": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Grant version.</p>",
                "smithy.api#required": {}
              }
            },
            "GrantedOperations": {
              "target": "com.amazonaws.licensemanager#AllowedOperationList",
              "traits": {
                "smithy.api#documentation": "<p>Granted operations.</p>",
                "smithy.api#required": {}
              }
            },
            "Options": {
              "target": "com.amazonaws.licensemanager#Options",
              "traits": {
                "smithy.api#documentation": "<p>The options specified for the grant.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#documentation":
"<p>Describes a grant.</p>"
          }
        },
        "com.amazonaws.licensemanager#GrantList": {
          "type": "list",
          "member": {
            "target": "com.amazonaws.licensemanager#Grant"
          }
        },
        "com.amazonaws.licensemanager#GrantStatus": {
          "type": "enum",
          "members": {
            "PENDING_WORKFLOW": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "PENDING_WORKFLOW"
              }
            },
            "PENDING_ACCEPT": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "PENDING_ACCEPT"
              }
            },
            "REJECTED": {
```

```
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "REJECTED"

          }
          },
          "ACTIVE": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "ACTIVE"
            }
          },
          "FAILED_WORKFLOW": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "FAILED_WORKFLOW"
            }
          },
          "DELETED": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "DELETED"
            }
          },
          "PENDING_DELETE": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "PENDING_DELETE"
            }
          },
          "DISABLED": {
            "target": "smithy.api#Unit",
            "traits":
{
              "smithy.api#enumValue": "DISABLED"
            }
          },
          "WORKFLOW_COMPLETED": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "WORKFLOW_COMPLETED"
            }
          }
        }
      },
      "com.amazonaws.licensemanager#GrantedLicense": {
        "type": "structure",
        "members": {
```

```
        "LicenseArn": {
          "target": "com.amazonaws.licensemanager#Arn",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>"
          }
        },
        "LicenseName": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>License name.</p>"
          }

    },
        "ProductName": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Product name.</p>"
          }
        },
        "ProductSKU": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Product SKU.</p>"
          }
        },
        "Issuer": {
          "target": "com.amazonaws.licensemanager#IssuerDetails",
          "traits": {
            "smithy.api#documentation": "<p>Granted license issuer.</p>"
          }
        },
        "HomeRegion": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Home Region of the granted license.</p>"

         }
        },
        "Status": {
          "target": "com.amazonaws.licensemanager#LicenseStatus",
          "traits": {
            "smithy.api#documentation": "<p>Granted license status.</p>"
          }
        },
        "Validity": {
          "target": "com.amazonaws.licensemanager#DatetimeRange",
          "traits": {
            "smithy.api#documentation": "<p>Date and time range during which the granted license is valid, in
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ISO8601-UTC format.</p>"
                }
            },
            "Beneficiary": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Granted license beneficiary.</p>"
                }
            },
            "Entitlements": {
                "target": "com.amazonaws.licensemanager#EntitlementList",
                 "traits": {
                    "smithy.api#documentation": "<p>License entitlements.</p>"
                }
            },
            "ConsumptionConfiguration": {
                "target": "com.amazonaws.licensemanager#ConsumptionConfiguration",
                "traits": {
                    "smithy.api#documentation": "<p>Configuration for consumption of the license.</p>"
                }
            },
            "LicenseMetadata": {
                "target": "com.amazonaws.licensemanager#MetadataList",
                "traits": {
                    "smithy.api#documentation": "<p>Granted license metadata.</p>"
                }
            },
            "CreateTime": {
                "target": "com.amazonaws.licensemanager#ISO8601DateTime",
                "traits": {
                    "smithy.api#documentation": "<p>Creation time of the granted license.</p>"

    }
            },
            "Version": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Version of the granted license.</p>"
                }
            },
            "ReceivedMetadata": {
                "target": "com.amazonaws.licensemanager#ReceivedMetadata",
                "traits": {
                    "smithy.api#documentation": "<p>Granted license received metadata.</p>"
                }
            }
        },
        "traits": {
```

```
            "smithy.api#documentation": "<p>Describes a license that is granted to a grantee.</p>"
        }
    },
    "com.amazonaws.licensemanager#GrantedLicenseList": {
        "type": "list",
        "member": {
            "target": "com.amazonaws.licensemanager#GrantedLicense"
        }
    },
    "com.amazonaws.licensemanager#ISO8601DateTime":
{
        "type": "string",
        "traits": {
            "smithy.api#length": {
                "min": 0,
                "max": 50
            },
            "smithy.api#pattern": "^(-?(?:[1-9][0-9]*)?[0-9]{4})-(1[0-2]|0[1-9])-(3[0-1]|0[1-9]|[1-2][0-9])T(2[0-3]|[0-
1][0-9]):([0-5][0-9]):([0-5][0-9])(\\.[0-9]+)?(Z|[+-](?:2[ 0-3]|[0-1][0-9]):[0-5][0-9])+$"
        }
    },
    "com.amazonaws.licensemanager#Integer": {
        "type": "integer"
    },
    "com.amazonaws.licensemanager#InvalidParameterValueException": {
        "type": "structure",
        "members": {
            "Message": {
                "target": "com.amazonaws.licensemanager#Message"
            }
        },
        "traits": {
            "aws.protocols#awsQueryError": {
                "code": "InvalidParameterValueProvided",
                "httpResponseCode": 400
            },
            "smithy.api#documentation":
"<p>One or more parameter values are not valid.</p>",
            "smithy.api#error": "client",
            "smithy.api#httpError": 400
        }
    },
    "com.amazonaws.licensemanager#InvalidResourceStateException": {
        "type": "structure",
        "members": {
            "Message": {
                "target": "com.amazonaws.licensemanager#Message"
            }
```

```
        },
        "traits": {
          "aws.protocols#awsQueryError": {
            "code": "InvalidResourceState",
            "httpResponseCode": 400
          },
          "smithy.api#documentation": "<p>License Manager cannot allocate a license to a resource because of its
state. </p>\n          <p>For example, you cannot allocate a license to an instance in the process of shutting\n
down.</p>",
          "smithy.api#error": "client",
          "smithy.api#httpError": 400
        }
      },

      "com.amazonaws.licensemanager#InventoryFilter": {
        "type": "structure",
        "members": {
          "Name": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Name of the filter.</p>",
              "smithy.api#required": {}
            }
          },
          "Condition": {
            "target": "com.amazonaws.licensemanager#InventoryFilterCondition",
            "traits": {
              "smithy.api#documentation": "<p>Condition of the filter.</p>",
              "smithy.api#required": {}
            }
          },
          "Value": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Value of the filter.</p>"
            }
          }

    },
        "traits": {
          "smithy.api#documentation": "<p>An inventory filter.</p>"
        }
      },
      "com.amazonaws.licensemanager#InventoryFilterCondition": {
        "type": "enum",
        "members": {
          "EQUALS": {
            "target": "smithy.api#Unit",
```

```
            "traits": {
              "smithy.api#enumValue": "EQUALS"
            }
          },
          "NOT_EQUALS": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "NOT_EQUALS"
            }
          },
          "BEGINS_WITH": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "BEGINS_WITH"
            }
          },
          "CONTAINS": {
            "target": "smithy.api#Unit",
            "traits": {
               "smithy.api#enumValue": "CONTAINS"
            }
          }
        }
      },
      "com.amazonaws.licensemanager#InventoryFilterList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#InventoryFilter"
        }
      },
      "com.amazonaws.licensemanager#Issuer": {
        "type": "structure",
        "members": {
          "Name": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Issuer name.</p>",
              "smithy.api#required": {}
            }
          },
          "SignKey": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Asymmetric KMS key from Key Management Service. The KMS
key must have a key usage
 of sign and verify, \n         and support the RSASSA-PSS SHA-256 signing algorithm.</p>"
            }
          }
```

```
        },
        "traits": {
          "smithy.api#documentation": "<p>Details about the issuer of a license.</p>"
        }
      },
      "com.amazonaws.licensemanager#IssuerDetails": {
        "type": "structure",
        "members": {
          "Name": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Issuer name.</p>"
            }
          },
          "SignKey": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Asymmetric KMS key from Key Management Service. The KMS
key must have a key usage of sign and verify, \n          and support the RSASSA-PSS SHA-256 signing
algorithm.</p>"
            }
          },
          "KeyFingerprint": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Issuer key fingerprint.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Details associated with the issuer of a license.</p>"
        }
      },
      "com.amazonaws.licensemanager#License": {
        "type": "structure",
        "members": {
          "LicenseArn": {
            "target": "com.amazonaws.licensemanager#Arn",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>"
            }
          },
          "LicenseName": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {

           "smithy.api#documentation": "<p>License name.</p>"
            }
```

```
        },
        "ProductName": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Product name.</p>"
          }
        },
        "ProductSKU": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Product SKU.</p>"
          }
        },
        "Issuer": {
          "target": "com.amazonaws.licensemanager#IssuerDetails",
          "traits": {
            "smithy.api#documentation": "<p>License issuer.</p>"
          }
        },
        "HomeRegion": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {

        "smithy.api#documentation": "<p>Home Region of the license.</p>"
          }
        },
        "Status": {
          "target": "com.amazonaws.licensemanager#LicenseStatus",
          "traits": {
            "smithy.api#documentation": "<p>License status.</p>"
          }
        },
        "Validity": {
          "target": "com.amazonaws.licensemanager#DatetimeRange",
          "traits": {
            "smithy.api#documentation": "<p>Date and time range during which the license is valid, in ISO8601-
UTC format.</p>"
          }
        },
        "Beneficiary": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>License beneficiary.</p>"
          }
        },
        "Entitlements": {
```

```
    "target": "com.amazonaws.licensemanager#EntitlementList",
                "traits": {
                    "smithy.api#documentation": "<p>License entitlements.</p>"
                }
            },
            "ConsumptionConfiguration": {
                "target": "com.amazonaws.licensemanager#ConsumptionConfiguration",
                "traits": {
                    "smithy.api#documentation": "<p>Configuration for consumption of the license.</p>"
                }
            },
            "LicenseMetadata": {
                "target": "com.amazonaws.licensemanager#MetadataList",
                "traits": {
                    "smithy.api#documentation": "<p>License metadata.</p>"
                }
            },
            "CreateTime": {
                "target": "com.amazonaws.licensemanager#ISO8601DateTime",
                "traits": {
                    "smithy.api#documentation": "<p>License
creation time.</p>"
                }
            },
            "Version": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>License version.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>Software license that is managed in License Manager.</p>"
        }
    },
    "com.amazonaws.licensemanager#LicenseConfiguration": {
        "type": "structure",
        "members": {
            "LicenseConfigurationId": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Unique ID of the license configuration.</p>"
                }
            },
            "LicenseConfigurationArn": {
                "target": "com.amazonaws.licensemanager#String",
                 "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license configuration.</p>"
```

```
        }
      },
      "Name": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>Name of the license configuration.</p>"
        }
      },
      "Description": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>Description of the license configuration.</p>"
        }
      },
      "LicenseCountingType": {
        "target": "com.amazonaws.licensemanager#LicenseCountingType",
        "traits": {
          "smithy.api#documentation": "<p>Dimension to use to track the license inventory.</p>"
         }
      },
      "LicenseRules": {
        "target": "com.amazonaws.licensemanager#StringList",
        "traits": {
          "smithy.api#documentation": "<p>License rules.</p>"
        }
      },
      "LicenseCount": {
        "target": "com.amazonaws.licensemanager#BoxLong",
        "traits": {
          "smithy.api#documentation": "<p>Number of licenses managed by the license configuration.</p>"
        }
      },
      "LicenseCountHardLimit": {
        "target": "com.amazonaws.licensemanager#BoxBoolean",
        "traits": {
          "smithy.api#documentation": "<p>Number of available licenses as a hard limit.</p>"
        }
      },
      "DisassociateWhenNotFound": {
        "target": "com.amazonaws.licensemanager#BoxBoolean",
         "traits": {
          "smithy.api#documentation": "<p>When true, disassociates a resource when software is
uninstalled.</p>"
        }
      },
      "ConsumedLicenses": {
        "target": "com.amazonaws.licensemanager#BoxLong",
        "traits": {
```

```
            "smithy.api#documentation": "<p>Number of licenses consumed. </p>"
          }
        },
        "Status": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Status of the license configuration.</p>"
          }
        },
        "OwnerAccountId": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Account ID of the license configuration's owner.</p>"

       }
        },
        "ConsumedLicenseSummaryList": {
          "target": "com.amazonaws.licensemanager#ConsumedLicenseSummaryList",
          "traits": {
            "smithy.api#documentation": "<p>Summaries for licenses consumed by various resources.</p>"
          }
        },
        "ManagedResourceSummaryList": {
          "target": "com.amazonaws.licensemanager#ManagedResourceSummaryList",
          "traits": {
            "smithy.api#documentation": "<p>Summaries for managed resources.</p>"
          }
        },
        "ProductInformationList": {
          "target": "com.amazonaws.licensemanager#ProductInformationList",
          "traits": {
            "smithy.api#documentation": "<p>Product information.</p>"
          }
        },
        "AutomatedDiscoveryInformation": {

          "target": "com.amazonaws.licensemanager#AutomatedDiscoveryInformation",
          "traits": {
            "smithy.api#documentation": "<p>Automated discovery information.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>A license configuration is an abstraction of a customer license
agreement that can be\n        consumed and enforced by License Manager. Components include specifications for
the license\n        type (licensing by instance, socket, CPU, or vCPU), allowed tenancy (shared tenancy, \n
Dedicated Instance, Dedicated Host, or all of these), host affinity (how long a VM\n        must be associated with a
host), and the number of licenses purchased and used.</p>"
```

```
        }
      },
      "com.amazonaws.licensemanager#LicenseConfigurationAssociation": {
        "type": "structure",
        "members": {
          "ResourceArn":
{
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the resource.</p>"
            }
          },
          "ResourceType": {
            "target": "com.amazonaws.licensemanager#ResourceType",
            "traits": {
              "smithy.api#documentation": "<p>Type of server resource.</p>"
            }
          },
          "ResourceOwnerId": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>ID of the Amazon Web Services account that owns the resource
consuming licenses.</p>"
            }
          },
          "AssociationTime": {
            "target": "com.amazonaws.licensemanager#DateTime",
            "traits": {

    "smithy.api#documentation": "<p>Time when the license configuration was associated with the resource.</p>"
            }
          },
          "AmiAssociationScope": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Scope of AMI associations. The possible value is <code>cross-
account</code>.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Describes an association with a license configuration.</p>"
        }
      },
      "com.amazonaws.licensemanager#LicenseConfigurationAssociations": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#LicenseConfigurationAssociation"
```

```
        }
      },
      "com.amazonaws.licensemanager#LicenseConfigurationStatus": {
        "type": "enum",
        "members":
{
          "AVAILABLE": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "AVAILABLE"
            }
          },
          "DISABLED": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "DISABLED"
            }
          }
        }
      },
      "com.amazonaws.licensemanager#LicenseConfigurationUsage": {
        "type": "structure",
        "members": {
          "ResourceArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the resource.</p>"
            }
          },
          "ResourceType": {
            "target": "com.amazonaws.licensemanager#ResourceType",
            "traits":
{
              "smithy.api#documentation": "<p>Type of resource.</p>"
            }
          },
          "ResourceStatus": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Status of the resource.</p>"
            }
          },
          "ResourceOwnerId": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>ID of the account that owns the resource.</p>"
            }
          },
```

```
            "AssociationTime": {
               "target": "com.amazonaws.licensemanager#DateTime",
               "traits": {
                  "smithy.api#documentation": "<p>Time when the license configuration was initially associated with the resource.</p>"
               }
            },

      "ConsumedLicenses": {
               "target": "com.amazonaws.licensemanager#BoxLong",
               "traits": {
                  "smithy.api#documentation": "<p>Number of licenses consumed by the resource.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#documentation": "<p>Details about the usage of a resource associated with a license configuration.</p>"
         }
      },
      "com.amazonaws.licensemanager#LicenseConfigurationUsageList": {
         "type": "list",
         "member": {
            "target": "com.amazonaws.licensemanager#LicenseConfigurationUsage"
         }
      },
      "com.amazonaws.licensemanager#LicenseConfigurations": {
         "type": "list",
         "member": {
            "target": "com.amazonaws.licensemanager#LicenseConfiguration"
         }
      },
      "com.amazonaws.licensemanager#LicenseConversionContext": {

   "type": "structure",
         "members": {
            "UsageOperation": {
               "target": "com.amazonaws.licensemanager#UsageOperation",
               "traits": {
                  "smithy.api#documentation": "<p>The Usage operation value that corresponds to the license type you are converting your resource from.  For more information about which platforms correspond to which usage operation values see <a href=\"https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/billing-info-fields.html#billing-info\">Sample data: usage operation by platform\n      </a>\n         </p>"
               }
            }
         },
         "traits": {
            "smithy.api#documentation": "<p>Information about a license type conversion task.</p>"
```

```
        }
      },
      "com.amazonaws.licensemanager#LicenseConversionTask": {
        "type": "structure",
        "members": {
          "LicenseConversionTaskId": {

       "target": "com.amazonaws.licensemanager#LicenseConversionTaskId",
            "traits": {
              "smithy.api#documentation": "<p>The ID of the license type conversion task.</p>"
            }
          },
          "ResourceArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the resource associated
with the license type\n         conversion task.</p>"
            }
          },
          "SourceLicenseContext": {
            "target": "com.amazonaws.licensemanager#LicenseConversionContext",
            "traits": {
              "smithy.api#documentation": "<p>Information about the license type this conversion task converted
from.</p>"
            }
          },
          "DestinationLicenseContext": {
            "target":
 "com.amazonaws.licensemanager#LicenseConversionContext",
            "traits": {
              "smithy.api#documentation": "<p>Information about the license type this conversion task converted
to.</p>"
            }
          },
          "Status": {
            "target": "com.amazonaws.licensemanager#LicenseConversionTaskStatus",
            "traits": {
              "smithy.api#documentation": "<p>The status of the conversion task.</p>"
            }
          },
          "StatusMessage": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>The status message for the conversion task.</p>"
            }
          },
          "StartTime": {
            "target": "com.amazonaws.licensemanager#DateTime",
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            "traits": {
                "smithy.api#documentation":
 "<p>The time the conversion task was started at.</p>"
            }
          },
          "LicenseConversionTime": {
            "target": "com.amazonaws.licensemanager#DateTime",
            "traits": {
              "smithy.api#documentation": "<p>The time the usage operation value of the resource was
changed.</p>"
            }
          },
          "EndTime": {
            "target": "com.amazonaws.licensemanager#DateTime",
            "traits": {
              "smithy.api#documentation": "<p>The time the conversion task was completed.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Information about a license type conversion task.</p>"
        }
      },
      "com.amazonaws.licensemanager#LicenseConversionTaskId": {
        "type": "string",
        "traits": {

         "smithy.api#length": {
            "min": 0,
            "max": 50
          },
          "smithy.api#pattern": "^lct-[a-zA-Z0-9]*$"
        }
      },
      "com.amazonaws.licensemanager#LicenseConversionTaskStatus": {
        "type": "enum",
        "members": {
          "IN_PROGRESS": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "IN_PROGRESS"
            }
          },
          "SUCCEEDED": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "SUCCEEDED"
            }
```

```
            },
            "FAILED": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "FAILED"
               }
            }
         }
      },
      "com.amazonaws.licensemanager#LicenseConversionTasks":
{
         "type": "list",
         "member": {
            "target": "com.amazonaws.licensemanager#LicenseConversionTask"
         }
      },
      "com.amazonaws.licensemanager#LicenseCountingType": {
         "type": "enum",
         "members": {
            "VCPU": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "vCPU"
               }
            },
            "INSTANCE": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "Instance"
               }
            },
            "CORE": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "Core"
               }
            },
            "SOCKET": {
               "target": "smithy.api#Unit",
                "traits": {
                  "smithy.api#enumValue": "Socket"
               }
            }
         }
      },
      "com.amazonaws.licensemanager#LicenseDeletionStatus": {
         "type": "enum",
         "members": {
```

```
        "PENDING_DELETE": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "PENDING_DELETE"
            }
        },
        "DELETED": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "DELETED"
            }
        }
    }
},
"com.amazonaws.licensemanager#LicenseList": {
    "type": "list",
    "member": {
        "target": "com.amazonaws.licensemanager#License"
    }
},
"com.amazonaws.licensemanager#LicenseOperationFailure": {

    "type": "structure",
    "members": {
        "ResourceArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the resource.</p>"
            }
        },
        "ResourceType": {
            "target": "com.amazonaws.licensemanager#ResourceType",
            "traits": {
                "smithy.api#documentation": "<p>Resource type.</p>"
            }
        },
        "ErrorMessage": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Error message.</p>"
            }
        },
        "FailureTime": {
            "target": "com.amazonaws.licensemanager#DateTime",
            "traits": {

"smithy.api#documentation": "<p>Failure time.</p>"
            }
```

```
            },
            "OperationName": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Name of the operation.</p>"
              }
            },
            "ResourceOwnerId": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>ID of the Amazon Web Services account that owns the
resource.</p>"
              }
            },
            "OperationRequestedBy": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>The requester is \"License Manager Automated Discovery\".</p>"
              }
            },
            "MetadataList": {

              "target": "com.amazonaws.licensemanager#MetadataList",
              "traits": {
                "smithy.api#documentation": "<p>Reserved.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>Describes the failure of a license operation.</p>"
          }
        },
        "com.amazonaws.licensemanager#LicenseOperationFailureList": {
          "type": "list",
          "member": {
            "target": "com.amazonaws.licensemanager#LicenseOperationFailure"
          }
        },
        "com.amazonaws.licensemanager#LicenseSpecification": {
          "type": "structure",
          "members": {
            "LicenseConfigurationArn": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license
configuration.</p>",
```

```
            "smithy.api#required": {}
            }
          },
          "AmiAssociationScope": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Scope of AMI associations. The possible value is <code>cross-account</code>.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Details for associating a license configuration with a resource.</p>"
        }
      },
      "com.amazonaws.licensemanager#LicenseSpecifications": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#LicenseSpecification"
        }
      },
      "com.amazonaws.licensemanager#LicenseStatus": {
        "type": "enum",
        "members": {
          "AVAILABLE": {
            "target": "smithy.api#Unit",

          "traits": {
              "smithy.api#enumValue": "AVAILABLE"
            }
          },
          "PENDING_AVAILABLE": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "PENDING_AVAILABLE"
            }
          },
          "DEACTIVATED": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "DEACTIVATED"
            }
          },
          "SUSPENDED": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "SUSPENDED"
            }
```

```
        },
        "EXPIRED": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "EXPIRED"
            }
        },

     "PENDING_DELETE": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "PENDING_DELETE"
            }
        },
        "DELETED": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "DELETED"
            }
        }
    }
},
"com.amazonaws.licensemanager#LicenseUsage": {
    "type": "structure",
    "members": {
        "EntitlementUsages": {
            "target": "com.amazonaws.licensemanager#EntitlementUsageList",
            "traits": {
                "smithy.api#documentation": "<p>License entitlement usages.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#documentation": "<p>Describes the entitlement usage associated with a license.</p>"

    }
},
"com.amazonaws.licensemanager#LicenseUsageException": {
    "type": "structure",
    "members": {
        "Message": {
            "target": "com.amazonaws.licensemanager#Message"
        }
    },
    "traits": {
        "aws.protocols#awsQueryError": {
            "code": "LicenseUsageFailure",
            "httpResponseCode": 412
```

```
            },
            "smithy.api#documentation": "<p>You do not have enough licenses available to support a new resource
launch.</p>",
            "smithy.api#error": "client",
            "smithy.api#httpError": 412
         }
      },
      "com.amazonaws.licensemanager#ListAssociationsForLicenseConfiguration": {
         "type": "operation",
         "input": {
            "target": "com.amazonaws.licensemanager#ListAssociationsForLicenseConfigurationRequest"
         },
         "output": {

      "target": "com.amazonaws.licensemanager#ListAssociationsForLicenseConfigurationResponse"
         },
         "errors": [
            {
               "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
               "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
               "target": "com.amazonaws.licensemanager#FilterLimitExceededException"
            },
            {
               "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
               "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
               "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Lists the resource associations for the
 specified license configuration.</p>\n         <p>Resource associations need not consume licenses from a license
configuration. \n         For example, an AMI or a stopped instance might not consume a license (depending on \n
the license rules).</p>"
         }
      },
      "com.amazonaws.licensemanager#ListAssociationsForLicenseConfigurationRequest": {
         "type": "structure",
         "members": {
            "LicenseConfigurationArn": {
               "target": "com.amazonaws.licensemanager#String",
```

```
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of a license configuration.</p>",
              "smithy.api#required": {}
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanager#BoxInteger",
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results
to return in a single call.</p>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#ListAssociationsForLicenseConfigurationResponse": {
        "type": "structure",
        "members": {
          "LicenseConfigurationAssociations": {
            "target": "com.amazonaws.licensemanager#LicenseConfigurationAssociations",
            "traits": {
              "smithy.api#documentation": "<p>Information about the associations for the license
configuration.</p>"
            }
          },
          "NextToken": {

"target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#ListDistributedGrants": {
        "type": "operation",
        "input": {
```

```
            "target": "com.amazonaws.licensemanager#ListDistributedGrantsRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#ListDistributedGrantsResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
             },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists the grants distributed for the specified license.</p>"
        }
    },
    "com.amazonaws.licensemanager#ListDistributedGrantsRequest": {
        "type": "structure",
        "members": {
            "GrantArns": {
                "target": "com.amazonaws.licensemanager#ArnList",
                "traits": {

            "smithy.api#documentation": "<p>Amazon Resource Names (ARNs) of the grants.</p>"
                }
            },
            "Filters": {
                "target": "com.amazonaws.licensemanager#FilterList",
                "traits": {
                    "smithy.api#documentation": "<p>Filters to scope the results. The following filters are
supported:</p>\n        <ul>\n            <li>\n                <p>\n                    <code>LicenseArn</code>\n                </p>\n
        </li>\n            <li>\n                <p>\n                    <code>GrantStatus</code>\n                </p>\n            </li>\n
```

\n \n <code>GranteePrincipalARN</code>\n \n \n
\n \n <code>ProductSKU</code>\n \n \n \n
\n <code>LicenseIssuerName</code>\n
\n \n "
}
},
"NextToken": {
"target": "com.amazonaws.licensemanager#String",
"traits": {
"smithy.api#documentation": " Token for the next set of results. "
}
},
"MaxResults": {
"target": "com.amazonaws.licensemanager#MaxSize100",
"traits": {
"smithy.api#documentation": " Maximum number of results to return in a single call. "
}
}
},
"traits": {
"smithy.api#input": {}
}
},
"com.amazonaws.licensemanager#ListDistributedGrantsResponse": {
"type": "structure",
"members": {
"Grants": {
"target": "com.amazonaws.licensemanager#GrantList",

"traits": {
"smithy.api#documentation": " Distributed grant details. "
}
},
"NextToken": {
"target": "com.amazonaws.licensemanager#String",
"traits": {
"smithy.api#documentation": " Token for the next set of results. "
}
}
},
"traits": {
"smithy.api#output": {}
}
},
"com.amazonaws.licensemanager#ListFailuresForLicenseConfigurationOperations": {
"type": "operation",
"input": {
"target": "com.amazonaws.licensemanager#ListFailuresForLicenseConfigurationOperationsRequest"

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        },
        "output": {
            "target": "com.amazonaws.licensemanager#ListFailuresForLicenseConfigurationOperationsResponse"
        },
        "errors": [
            {

"target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists the license configuration operations that failed.</p>"
        }
    },
    "com.amazonaws.licensemanager#ListFailuresForLicenseConfigurationOperationsRequest": {
        "type": "structure",
        "members": {
            "LicenseConfigurationArn": {
                "target": "com.amazonaws.licensemanager#String",
                 "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name of the license configuration.</p>",
                    "smithy.api#required": {}
                }
            },
            "MaxResults": {
                "target": "com.amazonaws.licensemanager#BoxInteger",
                "traits": {
                    "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
                }
            },
            "NextToken": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Token for the next set of results.</p>"
                }
            }
```

```
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#ListFailuresForLicenseConfigurationOperationsResponse":
{
        "type": "structure",
        "members": {
            "LicenseOperationFailureList": {
                "target": "com.amazonaws.licensemanager#LicenseOperationFailureList",
                "traits": {
                    "smithy.api#documentation": "<p>License configuration operations that failed.</p>"
                }
            },
            "NextToken": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Token for the next set of results.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#ListLicenseConfigurations": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#ListLicenseConfigurationsRequest"
        },

   "output": {
            "target": "com.amazonaws.licensemanager#ListLicenseConfigurationsResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#FilterLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
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            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists the license configurations
 for your account.</p>"
        }
    },
    "com.amazonaws.licensemanager#ListLicenseConfigurationsRequest": {
        "type": "structure",
        "members": {
            "LicenseConfigurationArns": {
                "target": "com.amazonaws.licensemanager#StringList",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Names (ARN) of the license
configurations.</p>"
                }
            },
            "MaxResults": {
                "target": "com.amazonaws.licensemanager#BoxInteger",
                "traits": {
                    "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
                }
            },
            "NextToken": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Token for the next
 set of results.</p>"
                }
            },
            "Filters": {
                "target": "com.amazonaws.licensemanager#Filters",
                "traits": {
                    "smithy.api#documentation": "<p>Filters to scope the results. The following filters and logical
operators\n        are supported:</p>\n        <ul>\n            <li>\n                <p>\n
<code>licenseCountingType</code> - The dimension for which licenses are counted.\n                Possible values are
<code>vCPU</code> | <code>Instance</code> | <code>Core</code> | <code>Socket</code>.\n                Logical
operators are <code>EQUALS</code> | <code>NOT_EQUALS</code>.</p>\n            </li>\n            <li>\n
<p>\n                <code>enforceLicenseCount</code> - A Boolean value that indicates whether hard license
enforcement is used. \n                Logical operators are <code>EQUALS</code> |
<code>NOT_EQUALS</code>.</p>\n
    </li>\n            <li>\n                <p>\n                <code>usagelimitExceeded</code> - A Boolean value that
indicates whether the available licenses have been exceeded. \n                Logical operators are
```

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<code>EQUALS</code> | <code>NOT_EQUALS</code>.</p>\n            </li>\n        </ul>"
                }
              }
            },
            "traits": {
              "smithy.api#input": {}
            }
          },
          "com.amazonaws.licensemanager#ListLicenseConfigurationsResponse": {
            "type": "structure",
            "members": {
              "LicenseConfigurations": {
                "target": "com.amazonaws.licensemanager#LicenseConfigurations",
                "traits": {
                  "smithy.api#documentation": "<p>Information about the license configurations.</p>"
                }
              },
              "NextToken": {
                "target": "com.amazonaws.licensemanager#String",

               "traits": {
                    "smithy.api#documentation": "<p>Token for the next set of results.</p>"
                }
              }
            },
            "traits": {
              "smithy.api#output": {}
            }
          },
          "com.amazonaws.licensemanager#ListLicenseConversionTasks": {
            "type": "operation",
            "input": {
              "target": "com.amazonaws.licensemanager#ListLicenseConversionTasksRequest"
            },
            "output": {
              "target": "com.amazonaws.licensemanager#ListLicenseConversionTasksResponse"
            },
            "errors": [
              {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
              },
              {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
              },
              {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
               },
              {
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            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Lists the license type conversion tasks for your account.</p>"
        }
      },
      "com.amazonaws.licensemanager#ListLicenseConversionTasksRequest": {
        "type": "structure",
        "members": {
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanager#BoxInteger",
            "traits": {

    "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          },
          "Filters": {
            "target": "com.amazonaws.licensemanager#Filters",
            "traits": {
              "smithy.api#documentation": "<p>\n         Filters to scope the results. Valid filters are
<code>ResourceArns</code> and <code>Status</code>.\n      </p>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#ListLicenseConversionTasksResponse": {
        "type": "structure",
        "members": {
          "LicenseConversionTasks": {
            "target": "com.amazonaws.licensemanager#LicenseConversionTasks",
            "traits": {
              "smithy.api#documentation": "<p>Information about the license configuration tasks for your
 account.</p>"
            }
          },
```

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            "NextToken": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Token for the next set of results.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#ListLicenseManagerReportGenerators": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#ListLicenseManagerReportGeneratorsRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#ListLicenseManagerReportGeneratorsResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target":
"com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists the report generators for your account.</p>"
```

```
        }
      },
      "com.amazonaws.licensemanager#ListLicenseManagerReportGeneratorsRequest":
{
        "type": "structure",
        "members": {
          "Filters": {
            "target": "com.amazonaws.licensemanager#FilterList",
            "traits": {
              "smithy.api#documentation": "<p>Filters to scope the results. The following filters are supported:
</p>\n       <ul>\n          <li>\n             <p>\n                <code>LicenseConfigurationArn</code>\n
</p>\n          </li>\n       </ul>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanager#MaxSize100",
            "traits":
{
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#ListLicenseManagerReportGeneratorsResponse": {
        "type": "structure",
        "members": {
          "ReportGenerators": {
            "target": "com.amazonaws.licensemanager#ReportGeneratorList",
            "traits": {
              "smithy.api#documentation": "<p>A report generator that creates periodic reports about your license
configurations.</p>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
```

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        }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#ListLicenseSpecificationsForResource": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#ListLicenseSpecificationsForResourceRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#ListLicenseSpecificationsForResourceResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Describes the license configurations for the specified resource.</p>"
        }
      },
      "com.amazonaws.licensemanager#ListLicenseSpecificationsForResourceRequest": {
        "type": "structure",
        "members": {
          "ResourceArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of a resource that has an
associated license configuration.</p>",
              "smithy.api#required": {}
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanager#BoxInteger",
```

```
            "traits": {

      "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#ListLicenseSpecificationsForResourceResponse": {
        "type": "structure",
        "members": {
          "LicenseSpecifications": {
            "target": "com.amazonaws.licensemanager#LicenseSpecifications",
            "traits": {
              "smithy.api#documentation": "<p>License configurations associated with a resource.</p>"
            }
          },
          "NextToken": {
             "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#ListLicenseVersions": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#ListLicenseVersionsRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#ListLicenseVersionsResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
```

```
        {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
        }
    ],
    "traits": {
        "smithy.api#documentation": "<p>Lists all versions of the specified license.</p>"
    }
},
"com.amazonaws.licensemanager#ListLicenseVersionsRequest": {
    "type": "structure",
    "members": {
        "LicenseArn": {
            "target": "com.amazonaws.licensemanager#Arn",
            "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>",
                "smithy.api#required": {}
            }
        },
        "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
        },
        "MaxResults": {
            "target": "com.amazonaws.licensemanager#MaxSize100",
            "traits": {
                "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#input": {}
    }
},
"com.amazonaws.licensemanager#ListLicenseVersionsResponse": {
    "type": "structure",
    "members": {
        "Licenses": {
```

```
            "target": "com.amazonaws.licensemanager#LicenseList",
            "traits": {
              "smithy.api#documentation": "<p>License details.</p>"
            }
          },

"NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#ListLicenses": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#ListLicensesRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#ListLicensesResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
           },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          },
          {
            "target": "com.amazonaws.licensemanager#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Lists the licenses for your account.</p>"
        }
```

```
    },
    "com.amazonaws.licensemanager#ListLicensesRequest": {
      "type": "structure",
      "members": {
        "LicenseArns": {
          "target": "com.amazonaws.licensemanager#ArnList",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Names (ARNs) of the licenses.</p>"
          }
        },

      "Filters": {
          "target": "com.amazonaws.licensemanager#FilterList",
          "traits": {
            "smithy.api#documentation": "<p>Filters to scope the results. The following filters are
supported:</p>\n        <ul>\n          <li>\n            <p>\n              <code>Beneficiary</code>\n            </p>\n
      </li>\n          <li>\n            <p>\n              <code>ProductSKU</code>\n            </p>\n          </li>\n
   <li>\n            <p>\n              <code>Fingerprint</code>\n            </p>\n          </li>\n          <li>\n
<p>\n              <code>Status</code>\n            </p>\n          </li>\n        </ul>"
          }
        },
        "NextToken": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Token
 for the next set of results.</p>"
          }
        },
        "MaxResults": {
          "target": "com.amazonaws.licensemanager#MaxSize100",
          "traits": {
            "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#ListLicensesResponse": {
      "type": "structure",
      "members": {
        "Licenses": {
          "target": "com.amazonaws.licensemanager#LicenseList",
          "traits": {
            "smithy.api#documentation": "<p>License details.</p>"
          }
        },
```

```
            "NextToken": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {

   "smithy.api#documentation": "<p>Token for the next set of results.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#output": {}
         }
      },
      "com.amazonaws.licensemanager#ListReceivedGrants": {
         "type": "operation",
         "input": {
            "target": "com.amazonaws.licensemanager#ListReceivedGrantsRequest"
         },
         "output": {
            "target": "com.amazonaws.licensemanager#ListReceivedGrantsResponse"
         },
         "errors": [
            {
               "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
               "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
               "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
               "target": "com.amazonaws.licensemanager#RateLimitExceededException"
             },
            {
               "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
               "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
               "target": "com.amazonaws.licensemanager#ValidationException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Lists grants that are received. Received grants are grants created while
   specifying the\n         recipient as this Amazon Web Services account, your organization, or an organizational unit\n
      (OU) to which this member account belongs.</p>"
         }
```

```
    },
    "com.amazonaws.licensemanager#ListReceivedGrantsForOrganization": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#ListReceivedGrantsForOrganizationRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#ListReceivedGrantsForOrganizationResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
          "target":
"com.amazonaws.licensemanager#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Lists the grants received for all accounts in the organization.</p>"
      }
    },
    "com.amazonaws.licensemanager#ListReceivedGrantsForOrganizationRequest": {
      "type": "structure",
      "members": {
        "LicenseArn": {
          "target": "com.amazonaws.licensemanager#Arn",
          "traits": {
            "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the received license.</p>",
            "smithy.api#required": {}
          }
        },
        "Filters": {
```

```
            "target": "com.amazonaws.licensemanager#FilterList",
            "traits": {
              "smithy.api#documentation": "<p>Filters to scope the results. The following filters are
supported:</p>\n
    <ul>\n      <li>\n      <p>\n      <code>ParentArn</code>\n      </p>\n      </li>\n
<li>\n      <p>\n      <code>GranteePrincipalArn</code>\n      </p>\n      </li>\n      </ul>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanager#MaxSize100",
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#ListReceivedGrantsForOrganizationResponse":
{
        "type": "structure",
        "members": {
          "Grants": {
            "target": "com.amazonaws.licensemanager#GrantList",
            "traits": {
              "smithy.api#documentation": "<p>Lists the grants the organization has received.</p>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#ListReceivedGrantsRequest": {
        "type": "structure",
```

```
        "members": {
          "GrantArns": {
            "target": "com.amazonaws.licensemanager#ArnList",
             "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Names (ARNs) of the grants.</p>"
            }
          },
          "Filters": {
            "target": "com.amazonaws.licensemanager#FilterList",
            "traits": {
              "smithy.api#documentation": "<p>Filters to scope the results. The following filters are
supported:</p>\n        <ul>\n          <li>\n            <p>\n              <code>ProductSKU</code>\n            </p>\n
        </li>\n          <li>\n            <p>\n              <code>LicenseIssuerName</code>\n            </p>\n
</li>\n          <li>\n            <p>\n              <code>LicenseArn</code>\n            </p>\n          </li>\n
<li>\n            <p>\n              <code>GrantStatus</code>\n            </p>\n          </li>\n          <li>\n
<p>\n
        <code>GranterAccountId</code>\n            </p>\n          </li>\n        </ul>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanager#MaxSize100",
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#ListReceivedGrantsResponse": {
        "type": "structure",
        "members": {
          "Grants": {
            "target": "com.amazonaws.licensemanager#GrantList",
             "traits": {
              "smithy.api#documentation": "<p>Received grant details.</p>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
```

```
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#output": {}
          }
        },
        "com.amazonaws.licensemanager#ListReceivedLicenses": {
          "type": "operation",
          "input": {
            "target": "com.amazonaws.licensemanager#ListReceivedLicensesRequest"
          },
          "output": {
            "target": "com.amazonaws.licensemanager#ListReceivedLicensesResponse"
          },
          "errors": [
            {
              "target": "com.amazonaws.licensemanager#AccessDeniedException"
             },
            {
              "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
              "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
              "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
              "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
              "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
              "target": "com.amazonaws.licensemanager#ValidationException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Lists received licenses.</p>"
          }
        },
        "com.amazonaws.licensemanager#ListReceivedLicensesForOrganization":
{
          "type": "operation",
          "input": {
            "target": "com.amazonaws.licensemanager#ListReceivedLicensesForOrganizationRequest"
```

```
        },
        "output": {
          "target": "com.amazonaws.licensemanager#ListReceivedLicensesForOrganizationResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
          },
          {

      "target": "com.amazonaws.licensemanager#ServerInternalException"
          },
          {
            "target": "com.amazonaws.licensemanager#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Lists the licenses received for all accounts in the organization.</p>"
        }
      },
      "com.amazonaws.licensemanager#ListReceivedLicensesForOrganizationRequest": {
        "type": "structure",
        "members": {
          "Filters": {
            "target": "com.amazonaws.licensemanager#FilterList",
            "traits": {
              "smithy.api#documentation": "<p>Filters to scope the results. The following filters are
supported:</p>\n        <ul>\n          <li>\n            <p>\n              <code>Beneficiary</code>\n            </p>\n
        </li>\n          <li>\n            <p>\n              <code>ProductSKU</code>\n
          </p>\n          </li>\n        </ul>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
```

```
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanager#MaxSize100",
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#ListReceivedLicensesForOrganizationResponse": {
        "type": "structure",
        "members": {
          "Licenses": {
            "target": "com.amazonaws.licensemanager#GrantedLicenseList",
             "traits": {
              "smithy.api#documentation": "<p>Lists the licenses the organization has received.</p>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#ListReceivedLicensesRequest": {
        "type": "structure",
        "members": {
          "LicenseArns": {
            "target": "com.amazonaws.licensemanager#ArnList",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Names (ARNs) of the licenses.</p>"
            }
          },

         "Filters": {
            "target": "com.amazonaws.licensemanager#FilterList",
            "traits": {
              "smithy.api#documentation": "<p>Filters to scope the results. The following filters are
supported:</p>\n        <ul>\n          <li>\n            <p>\n              <code>ProductSKU</code>\n            </p>\n
```

```
</li>\n <li>\n <p>\n <code>Status</code>\n </p>\n </li>\n
<li>\n <p>\n <code>Fingerprint</code>\n </p>\n </li>\n <li>\n
<p>\n <code>IssuerName</code>\n </p>\n </li>\n <li>\n <p>\n
<code>Beneficiary</code>\n </p>\n </li>\n </ul>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
             "traits": {
               "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanager#MaxSize100",
            "traits": {
               "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#ListReceivedLicensesResponse": {
        "type": "structure",
        "members": {
          "Licenses": {
            "target": "com.amazonaws.licensemanager#GrantedLicenseList",
            "traits": {
               "smithy.api#documentation": "<p>Received license details.</p>"
            }
          },

          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
               "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#ListResourceInventory": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#ListResourceInventoryRequest"
```

```
    },
    "output": {
      "target": "com.amazonaws.licensemanager#ListResourceInventoryResponse"
    },
    "errors": [
      {
        "target": "com.amazonaws.licensemanager#AccessDeniedException"
      },
      {
        "target": "com.amazonaws.licensemanager#AuthorizationException"
      },
      {
        "target": "com.amazonaws.licensemanager#FailedDependencyException"
      },
      {
        "target": "com.amazonaws.licensemanager#FilterLimitExceededException"
      },
      {
        "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
      },
      {
        "target": "com.amazonaws.licensemanager#RateLimitExceededException"
      },
      {
        "target": "com.amazonaws.licensemanager#ServerInternalException"
      }
    ],
    "traits": {
      "smithy.api#documentation": "<p>Lists resources managed using Systems Manager inventory.</p>"
    }
  },
  "com.amazonaws.licensemanager#ListResourceInventoryRequest": {
    "type": "structure",
    "members": {
      "MaxResults": {
        "target": "com.amazonaws.licensemanager#BoxInteger",
        "traits": {
          "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
        }
      },
      "NextToken": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>Token for the next set of results.</p>"
        }
      },
      "Filters": {
        "target": "com.amazonaws.licensemanager#InventoryFilterList",
```

```
            "traits": {
                "smithy.api#documentation": "<p>Filters to scope the results. The following filters and logical operators\n are supported:</p>\n <ul>\n <li>\n <p>\n <code>account_id</code> - The ID of the Amazon Web Services account that owns the resource.\n Logical operators are <code>EQUALS</code> | <code>NOT_EQUALS</code>.</p>\n </li>\n <li>\n <p>\n <code>application_name</code> - The name of the application. \n Logical operators are <code>EQUALS</code> | <code>BEGINS_WITH</code>.</p>\n </li>\n <li>\n <p>\n <code>license_included</code> - The type of license included. \n Logical operators are <code>EQUALS</code> | <code>NOT_EQUALS</code>.\n Possible values are <code>sql-server-enterprise</code> | \n <code>sql-server-standard</code> | \n <code>sql-server-web</code> | \n <code>windows-server-datacenter</code>.</p>\n </li>\n <li>\n <p>\n <code>platform</code> - The platform of the resource.\n Logical operators are <code>EQUALS</code> | <code>BEGINS_WITH</code>.</p>\n </li>\n <li>\n <p>\n <code>resource_id</code> - The ID of the resource. \n Logical operators are <code>EQUALS</code> | <code>NOT_EQUALS</code>.</p>\n </li>\n <li>\n <p>\n <code>tag:<key></code> - The key/value combination of a tag assigned \n to the resource. Logical operators are <code>EQUALS</code> (single account) or\n <code>EQUALS</code> | <code>NOT_EQUALS</code> (cross account).</p>\n </li>\n </ul>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#ListResourceInventoryResponse": {
        "type": "structure",
        "members": {
          "ResourceInventoryList": {
            "target": "com.amazonaws.licensemanager#ResourceInventoryList",
            "traits": {
              "smithy.api#documentation": "<p>Information about the resources.</p>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#ListTagsForResource": {
        "type": "operation",
```

```
        "input": {
            "target": "com.amazonaws.licensemanager#ListTagsForResourceRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#ListTagsForResourceResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
             },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists the tags for the specified license configuration.</p>"
        }
    },
    "com.amazonaws.licensemanager#ListTagsForResourceRequest": {
        "type": "structure",
        "members": {
            "ResourceArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license
configuration.</p>",

    "smithy.api#required": {}
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#ListTagsForResourceResponse": {
        "type": "structure",
        "members": {
            "Tags": {
```

```
            "target": "com.amazonaws.licensemanager#TagList",
            "traits": {
              "smithy.api#documentation": "<p>Information about the tags.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#ListTokens": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#ListTokensRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#ListTokensResponse"
        },
        "errors":
[
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          },
          {
            "target": "com.amazonaws.licensemanager#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Lists your tokens.</p>"
        }
      },
      "com.amazonaws.licensemanager#ListTokensRequest": {
        "type": "structure",
        "members": {
          "TokenIds": {
            "target": "com.amazonaws.licensemanager#StringList",
            "traits": {
```

```
            "smithy.api#documentation": "<p>Token IDs.</p>"
          }
        },
        "Filters": {
          "target": "com.amazonaws.licensemanager#FilterList",
          "traits": {
            "smithy.api#documentation": "<p>Filters to scope the results. The following filter is supported:</p>\n
    <ul>\n        <li>\n        <p>\n        <code>LicenseArns</code>\n        </p>\n        </li>\n
</ul>"
          }
        },
        "NextToken": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Token for the next set of results.</p>"
          }
        },
        "MaxResults": {
          "target": "com.amazonaws.licensemanager#MaxSize100",
          "traits": {
            "smithy.api#documentation":
 "<p>Maximum number of results to return in a single call.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#ListTokensResponse": {
      "type": "structure",
      "members": {
        "Tokens": {
          "target": "com.amazonaws.licensemanager#TokenList",
          "traits": {
            "smithy.api#documentation": "<p>Received token details.</p>"
          }
        },
        "NextToken": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Token for the next set of results.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#output": {}
      }
```

```
    },
    "com.amazonaws.licensemanager#ListUsageForLicenseConfiguration":
{
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#ListUsageForLicenseConfigurationRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#ListUsageForLicenseConfigurationResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#FilterLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
             {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists all license usage records for a license configuration, displaying
license\n        consumption details by resource at a selected point in time. Use this action to audit the\n        current
license consumption for any license inventory and configuration.</p>"
        }
    },
    "com.amazonaws.licensemanager#ListUsageForLicenseConfigurationRequest": {
        "type": "structure",
        "members": {
            "LicenseConfigurationArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license
configuration.</p>",
                    "smithy.api#required": {}
                }
            },
```

```
            "MaxResults": {
              "target": "com.amazonaws.licensemanager#BoxInteger",
              "traits": {
                "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
              }
            },
            "NextToken": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
              }
            },
            "Filters": {
              "target": "com.amazonaws.licensemanager#Filters",
              "traits": {
                "smithy.api#documentation": "<p>Filters to scope the results. The following filters and logical
operators\n        are supported:</p>\n        <ul>\n          <li>\n            <p>\n
<code>resourceArn</code> - The ARN of the license configuration resource.\n
          Logical operators are <code>EQUALS</code> | <code>NOT_EQUALS</code>.</p>\n          </li>\n
 <li>\n            <p>\n              <code>resourceType</code> - The resource type
(<code>EC2_INSTANCE</code> | <code>EC2_HOST</code> | <code>EC2_AMI</code> |
<code>SYSTEMS_MANAGER_MANAGED_INSTANCE</code>). \n            Logical operators are
<code>EQUALS</code> | <code>NOT_EQUALS</code>.</p>\n          </li>\n          <li>\n            <p>\n
    <code>resourceAccount</code> - The ID of the account that owns the resource. \n            Logical operators
are <code>EQUALS</code> | <code>NOT_EQUALS</code>.</p>\n          </li>\n        </ul>"
              }
            }
          },
          "traits": {
            "smithy.api#input": {}
          }
        },
        "com.amazonaws.licensemanager#ListUsageForLicenseConfigurationResponse": {
          "type": "structure",
          "members": {

 "LicenseConfigurationUsageList": {
              "target": "com.amazonaws.licensemanager#LicenseConfigurationUsageList",
              "traits": {
                "smithy.api#documentation": "<p>Information about the license configurations.</p>"
              }
            },
            "NextToken": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
              }
            }
```

```
        },
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#Location": {
        "type": "string"
    },
    "com.amazonaws.licensemanager#Long": {
        "type": "long"
    },
    "com.amazonaws.licensemanager#ManagedResourceSummary": {
        "type": "structure",
        "members": {
            "ResourceType":
{
                "target": "com.amazonaws.licensemanager#ResourceType",
                "traits": {
                    "smithy.api#documentation": "<p>Type of resource associated with a license.</p>"
                }
            },
            "AssociationCount": {
                "target": "com.amazonaws.licensemanager#BoxLong",
                "traits": {
                    "smithy.api#documentation": "<p>Number of resources associated with licenses.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>Summary information about a managed resource.</p>"
        }
    },
    "com.amazonaws.licensemanager#ManagedResourceSummaryList": {
        "type": "list",
        "member": {
            "target": "com.amazonaws.licensemanager#ManagedResourceSummary"
        }
    },
    "com.amazonaws.licensemanager#MaxSize100": {

    "type": "integer",
        "traits": {
            "smithy.api#range": {
                "min": 1,
                "max": 100
            }
        }
    },
```

```
"com.amazonaws.licensemanager#MaxSize3StringList": {
   "type": "list",
   "member": {
      "target": "com.amazonaws.licensemanager#String"
   },
   "traits": {
      "smithy.api#length": {
         "min": 0,
         "max": 3
      }
   }
},
"com.amazonaws.licensemanager#Message": {
   "type": "string"
},
"com.amazonaws.licensemanager#Metadata": {
   "type": "structure",
   "members": {
      "Name": {
         "target": "com.amazonaws.licensemanager#String",
         "traits": {
            "smithy.api#documentation": "<p>The key name.</p>"
         }
      },

"Value": {
         "target": "com.amazonaws.licensemanager#String",
         "traits": {
            "smithy.api#documentation": "<p>The value.</p>"
         }
      }
   },
   "traits": {
      "smithy.api#documentation": "<p>Describes key/value pairs.</p>"
   }
},
"com.amazonaws.licensemanager#MetadataList": {
   "type": "list",
   "member": {
      "target": "com.amazonaws.licensemanager#Metadata"
   }
},
"com.amazonaws.licensemanager#NoEntitlementsAllowedException": {
   "type": "structure",
   "members": {
      "Message": {
         "target": "com.amazonaws.licensemanager#Message"
      }
```

```
        },
        "traits": {
          "smithy.api#documentation": "<p>There are no entitlements found for this license, or the entitlement maximum count is reached.</p>",
          "smithy.api#error": "client",
          "smithy.api#httpError": 400
        }
      },
      "com.amazonaws.licensemanager#Options": {
        "type": "structure",
        "members": {
          "ActivationOverrideBehavior": {
            "target": "com.amazonaws.licensemanager#ActivationOverrideBehavior",
            "traits": {
              "smithy.api#documentation": "<p>An activation option for your grant that determines the behavior of activating a grant.\n Activation options can only be used with granted licenses sourced from the Amazon Web Services Marketplace. Additionally, the operation must specify the value of <code>ACTIVE</code> for the\n <code>Status</code> parameter.</p>\n <ul>\n <li>\n <p>As a license administrator, you can optionally specify an\n <code>ActivationOverrideBehavior</code> when activating a grant.</p>\n </li>\n <li>\n <p>As a grantor, you can optionally specify an\n <code>ActivationOverrideBehavior</code> when you activate a grant for a grantee\n account in your organization.</p>\n </li>\n <li>\n <p>As a grantee, if the grantor creating the distributed grant doesnt specify an\n <code>ActivationOverrideBehavior</code>, you can optionally specify one when you\n are activating the grant.</p>\n </li>\n </ul>\n <dl>\n <dt>DISTRIBUTED_GRANTS_ONLY</dt>\n <dd>\n <p>Use this value to activate a grant without replacing any member accounts\n active grants for the same product.</p>\n </dd>\n <dt>ALL_GRANTS_PERMITTED_BY_ISSUER</dt>\n <dd>\n <p>Use this value to activate a grant and disable other active grants in any\n member accounts
 for the same product. This action will also replace their\n previously activated grants with this activated grant.</p>\n </dd>\n </dl>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>The options you can specify when you create a new version of a grant, such as activation\n override behavior. For more information, see <a href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/granted-licenses.html\">Granted licenses in License Manager</a> in the <i>License Manager User Guide</i>.</p>"
        }
      },
      "com.amazonaws.licensemanager#OrganizationConfiguration": {
        "type": "structure",
        "members": {
          "EnableIntegration": {
            "target": "com.amazonaws.licensemanager#Boolean",
            "traits": {
              "smithy.api#default": false,
              "smithy.api#documentation":
```

```
"<p>Enables Organizations integration.</p>",
                    "smithy.api#required": {}
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>Configuration information for Organizations.</p>"
        }
    },
    "com.amazonaws.licensemanager#PrincipalArnList": {
        "type": "list",
        "member": {
            "target": "com.amazonaws.licensemanager#Arn"
        },
        "traits": {
            "smithy.api#length": {
                "min": 1,
                "max": 1
            }
        }
    },
    "com.amazonaws.licensemanager#ProductInformation": {
        "type": "structure",
        "members": {
            "ResourceType": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Resource type. The
possible values are <code>SSM_MANAGED</code> | <code>RDS</code>.</p>",
                    "smithy.api#required": {}
                }
            },
            "ProductInformationFilterList": {
                "target": "com.amazonaws.licensemanager#ProductInformationFilterList",
                "traits": {
                    "smithy.api#documentation": "<p>A Product information filter consists of a
<code>ProductInformationFilterComparator</code> which is a logical operator, a
<code>ProductInformationFilterName</code> which specifies the type of filter being declared, and a
<code>ProductInformationFilterValue</code> that specifies the value to filter on. </p>\n          <p>Accepted values
for <code>ProductInformationFilterName</code> are listed here along with descriptions and valid options for
<code>ProductInformationFilterComparator</code>. </p>\n          <p>The following filters and are supported when
the resource type \n          is <code>SSM_MANAGED</code>:</p>\n
          <ul>\n            <li>\n              <p>\n                <code>Application Name</code> - The name of the
application.\n              Logical operator is <code>EQUALS</code>.</p>\n            </li>\n            <li>\n
<p>\n                <code>Application Publisher</code> - The publisher of the application.\n              Logical
operator is <code>EQUALS</code>.</p>\n            </li>\n            <li>\n              <p>\n
<code>Application Version</code> - The version of the application.\n              Logical operator is
<code>EQUALS</code>.</p>\n            </li>\n            <li>\n              <p>\n                <code>Platform
```

Name</code> - The name of the platform.\n Logical operator is <code>EQUALS</code>. \n \n \n \n <code>Platform Type</code> - The platform type.\n Logical operator is <code>EQUALS</code>. \n

\n \n \n <code>Tag:key</code> - The key of a tag attached to an Amazon Web Services resource you wish to exclude from automated discovery. Logical operator is <code>NOT_EQUALS</code>. The key for your tag must be appended to <code>Tag:</code> following the example: <code>Tag:name-of-your-key</code>. <code>ProductInformationFilterValue</code> is optional if you are not using values for the key.\n \n \n \n \n <code>AccountId</code> - The 12-digit ID of an Amazon Web Services account you wish to exclude from automated discovery.\n Logical operator is <code>NOT_EQUALS</code>. \n \n \n \n <code>License Included</code> - The type of license included.\n Logical operators are <code>EQUALS</code> and <code>NOT_EQUALS</code>.\n Possible values are: <code>sql-server-enterprise</code> | \n <code>sql-server-standard</code> | \n <code>sql-server-web</code> | \n <code>windows-server-datacenter</code>. \n \n \n The following filters and logical operators are supported when the resource type\n is <code>RDS</code>: \n \n \n \n <code>Engine Edition</code> - The edition of the database engine.\n Logical operator is <code>EQUALS</code>.\n Possible values are: <code>oracle-ee</code> | <code>oracle-se</code> | <code>oracle-se1</code> | <code>oracle-se2</code>. \n \n \n \n <code>License Pack</code> - The license pack.\n Logical operator is <code>EQUALS</code>.\n Possible values are: <code>data guard</code> | \n <code>diagnostic pack sqlt</code> | \n <code>tuning pack sqlt</code> | \n <code>ols</code> | \n <code>olap</code>. \n \n ",

"smithy.api#required": {}

}

}

},

"traits": {

"smithy.api#documentation": " Describes product information for a license configuration. "

}

},

"com.amazonaws.licensemanager#ProductInformationFilter": {

"type": "structure",

"members": {

"ProductInformationFilterName": {

"target": "com.amazonaws.licensemanager#String",

"traits": {

"smithy.api#documentation": " Filter name. ",

"smithy.api#required": {}

}

},

"ProductInformationFilterValue": {

"target": "com.amazonaws.licensemanager#StringList",

"traits": {

"smithy.api#documentation": " Filter value. "

}

},

```
        "ProductInformationFilterComparator": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Logical operator.</p>",
            "smithy.api#required": {}
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>Describes product information filters.</p>"
      }
    },
    "com.amazonaws.licensemanager#ProductInformationFilterList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanager#ProductInformationFilter"
      }
    },
    "com.amazonaws.licensemanager#ProductInformationList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanager#ProductInformation"
       }
    },
    "com.amazonaws.licensemanager#ProvisionalConfiguration": {
      "type": "structure",
      "members": {
        "MaxTimeToLiveInMinutes": {
          "target": "com.amazonaws.licensemanager#BoxInteger",
          "traits": {
            "smithy.api#documentation": "<p>Maximum time for the provisional configuration, in minutes.</p>",
            "smithy.api#required": {}
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>Details about a provisional configuration.</p>"
      }
    },
    "com.amazonaws.licensemanager#RateLimitExceededException": {
      "type": "structure",
      "members": {
        "Message": {
          "target": "com.amazonaws.licensemanager#Message"
        }
      },
      "traits": {
```

```
            "aws.protocols#awsQueryError": {
              "code": "RateLimitExceeded",
              "httpResponseCode": 429
            },
            "smithy.api#documentation": "<p>Too many requests have been submitted. Try again after a brief
wait.</p>",
            "smithy.api#error": "client",
            "smithy.api#httpError": 429
          }
        },
        "com.amazonaws.licensemanager#ReceivedMetadata": {
          "type": "structure",
          "members": {
            "ReceivedStatus": {
              "target": "com.amazonaws.licensemanager#ReceivedStatus",
              "traits": {
                "smithy.api#documentation": "<p>Received status.</p>"
              }
            },
            "ReceivedStatusReason": {
              "target": "com.amazonaws.licensemanager#StatusReasonMessage",
              "traits": {
                "smithy.api#documentation": "<p>Received
 status reason.</p>"
              }
            },
            "AllowedOperations": {
              "target": "com.amazonaws.licensemanager#AllowedOperationList",
              "traits": {
                "smithy.api#documentation": "<p>Allowed operations.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>Metadata associated with received licenses and grants.</p>"
          }
        },
        "com.amazonaws.licensemanager#ReceivedStatus": {
          "type": "enum",
          "members": {
            "PENDING_WORKFLOW": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "PENDING_WORKFLOW"
              }
            },
            "PENDING_ACCEPT": {
              "target": "smithy.api#Unit",
```

```
            "traits": {
              "smithy.api#enumValue":
"PENDING_ACCEPT"
            }
          },
          "REJECTED": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "REJECTED"
            }
          },
          "ACTIVE": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "ACTIVE"
            }
          },
          "FAILED_WORKFLOW": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "FAILED_WORKFLOW"
            }
          },
          "DELETED": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "DELETED"
            }
          },
          "DISABLED": {
            "target": "smithy.api#Unit",
             "traits": {
              "smithy.api#enumValue": "DISABLED"
            }
          },
          "WORKFLOW_COMPLETED": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "WORKFLOW_COMPLETED"
            }
          }
        }
      },
      "com.amazonaws.licensemanager#RedirectException": {
        "type": "structure",
        "members": {
          "Location": {
            "target": "com.amazonaws.licensemanager#Location",
```

```
            "traits": {
              "smithy.api#httpHeader": "Location"
            }
          },
          "Message": {
            "target": "com.amazonaws.licensemanager#Message"
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>This is not the correct Region for the resource. Try again.</p>",
           "smithy.api#error": "client",
          "smithy.api#httpError": 308
        }
      },
      "com.amazonaws.licensemanager#RejectGrant": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#RejectGrantRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#RejectGrantResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target":
"com.amazonaws.licensemanager#ResourceLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          },
          {
            "target": "com.amazonaws.licensemanager#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Rejects the specified grant.</p>"
```

```
        }
    },
    "com.amazonaws.licensemanager#RejectGrantRequest": {
        "type": "structure",
        "members": {
            "GrantArn": {
                "target": "com.amazonaws.licensemanager#Arn",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the grant.</p>",
                    "smithy.api#required": {}
                }
            }
        },
        "traits": {
            "smithy.api#input": {}

}
    },
    "com.amazonaws.licensemanager#RejectGrantResponse": {
        "type": "structure",
        "members": {
            "GrantArn": {
                "target": "com.amazonaws.licensemanager#Arn",
                "traits": {
                    "smithy.api#documentation": "<p>Grant ARN.</p>"
                }
            },
            "Status": {
                "target": "com.amazonaws.licensemanager#GrantStatus",
                "traits": {
                    "smithy.api#documentation": "<p>Grant status.</p>"
                }
            },
            "Version": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Grant version.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#RenewType":
{
        "type": "enum",
        "members": {
```

```
            "NONE": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "None"
              }
            },
            "WEEKLY": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "Weekly"
              }
            },
            "MONTHLY": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "Monthly"
              }
            }
          }
        },
        "com.amazonaws.licensemanager#ReportContext": {
          "type": "structure",
          "members": {
            "licenseConfigurationArns": {
              "target": "com.amazonaws.licensemanager#ArnList",
              "traits": {

          "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license configuration that this
generator reports on.</p>",
                "smithy.api#required": {}
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>Details of the license configuration that this generator reports on.</p>"
          }
        },
        "com.amazonaws.licensemanager#ReportFrequency": {
          "type": "structure",
          "members": {
            "value": {
              "target": "com.amazonaws.licensemanager#Integer",
              "traits": {
                "smithy.api#documentation": "<p>Number of times within the frequency period that a report is
generated.  \n         The only supported value is <code>1</code>.</p>"
              }
            },
            "period": {
```

```
            "target": "com.amazonaws.licensemanager#ReportFrequencyType",

            "traits": {
                "smithy.api#documentation": "<p>Time period between each report. The period can be daily, weekly,
or monthly.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Details about how frequently reports are generated.</p>"
        }
      },
      "com.amazonaws.licensemanager#ReportFrequencyType": {
        "type": "enum",
        "members": {
          "DAY": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "DAY"
            }
          },
          "WEEK": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "WEEK"
            }
          },
          "MONTH": {
            "target": "smithy.api#Unit",
            "traits":
{
              "smithy.api#enumValue": "MONTH"
            }
          }
        }
      },
      "com.amazonaws.licensemanager#ReportGenerator": {
        "type": "structure",
        "members": {
          "ReportGeneratorName": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Name of the report generator.</p>"
            }
          },
          "ReportType": {
            "target": "com.amazonaws.licensemanager#ReportTypeList",
            "traits": {
```

```
                "smithy.api#documentation": "<p>Type of reports that are generated.</p>"
            }
        },
        "ReportContext": {
            "target": "com.amazonaws.licensemanager#ReportContext",
            "traits": {
                "smithy.api#documentation": "<p>License
configuration type for this generator.</p>"
            }
        },
        "ReportFrequency": {
            "target": "com.amazonaws.licensemanager#ReportFrequency",
            "traits": {
                "smithy.api#documentation": "<p>Details about how frequently reports are generated.</p>"
            }
        },
        "LicenseManagerReportGeneratorArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the report generator.</p>"
            }
        },
        "LastRunStatus": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Status of the last report generation attempt.</p>"
            }
        },
        "LastRunFailureReason":
{
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Failure message for the last report generation attempt.</p>"
            }
        },
        "LastReportGenerationTime": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Time the last report was generated at.</p>"
            }
        },
        "ReportCreatorAccount": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>The Amazon Web Services account ID used to create the report
generator.</p>"
            }
        },
```

```
            "Description": {
               "target": "com.amazonaws.licensemanager#String",

         "traits": {
                  "smithy.api#documentation": "<p>Description of the report generator.</p>"
               }
            },
            "S3Location": {
               "target": "com.amazonaws.licensemanager#S3Location",
               "traits": {
                  "smithy.api#documentation": "<p>Details of the S3 bucket that report generator reports are published
to.</p>"
               }
            },
            "CreateTime": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Time the report was created.</p>"
               }
            },
            "Tags": {
               "target": "com.amazonaws.licensemanager#TagList",
               "traits": {
                  "smithy.api#documentation": "<p>Tags associated with the report generator.</p>"
               }

      }
         },
         "traits": {
            "smithy.api#documentation": "<p>Describe the details of a report generator.</p>"
         }
      },
      "com.amazonaws.licensemanager#ReportGeneratorList": {
         "type": "list",
         "member": {
            "target": "com.amazonaws.licensemanager#ReportGenerator"
         }
      },
      "com.amazonaws.licensemanager#ReportGeneratorName": {
         "type": "string",
         "traits": {
            "smithy.api#length": {
               "min": 1,
               "max": 100
            }
         }
      },
      "com.amazonaws.licensemanager#ReportType": {
```

```
      "type": "enum",
      "members": {
        "LICENSE_CONFIGURATION_SUMMARY_REPORT": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "LicenseConfigurationSummaryReport"
          }

    },
        "LICENSE_CONFIGURATION_USAGE_REPORT": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "LicenseConfigurationUsageReport"
          }
        }
      }
    },
    "com.amazonaws.licensemanager#ReportTypeList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanager#ReportType"
      }
    },
    "com.amazonaws.licensemanager#ResourceInventory": {
      "type": "structure",
      "members": {
        "ResourceId": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>ID of the resource.</p>"
          }
        },
        "ResourceType": {
          "target": "com.amazonaws.licensemanager#ResourceType",
          "traits":
{
            "smithy.api#documentation": "<p>Type of resource.</p>"
          }
        },
        "ResourceArn": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the resource.</p>"
          }
        },
        "Platform": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
```

```
            "smithy.api#documentation": "<p>Platform of the resource.</p>"
          }
        },
        "PlatformVersion": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Platform version of the resource in the inventory.</p>"
          }
        },
        "ResourceOwningAccountId":
{
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>ID of the account that owns the resource.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>Details about a resource.</p>"
      }
    },
    "com.amazonaws.licensemanager#ResourceInventoryList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanager#ResourceInventory"
      }
    },
    "com.amazonaws.licensemanager#ResourceLimitExceededException": {
      "type": "structure",
      "members": {
        "Message": {
          "target": "com.amazonaws.licensemanager#Message"
        }
      },
      "traits": {
        "aws.protocols#awsQueryError": {
          "code": "ResourceLimitExceeded",

           "httpResponseCode": 400
        },
        "smithy.api#documentation": "<p>Your resource limits have been exceeded.</p>",
        "smithy.api#error": "client",
        "smithy.api#httpError": 400
      }
    },
    "com.amazonaws.licensemanager#ResourceNotFoundException": {
      "type": "structure",
      "members": {
```

```
      "Message": {
        "target": "com.amazonaws.licensemanager#Message"
      }
    },
    "traits": {
      "aws.protocols#awsQueryError": {
        "code": "InvalidResource.NotFound",
        "httpResponseCode": 400
      },
      "smithy.api#documentation": "<p>The resource cannot be found.</p>",
      "smithy.api#error": "client",
      "smithy.api#httpError": 400
    }
  },
  "com.amazonaws.licensemanager#ResourceType": {
    "type": "enum",
     "members": {
      "EC2_INSTANCE": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "EC2_INSTANCE"
        }
      },
      "EC2_HOST": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "EC2_HOST"
        }
      },
      "EC2_AMI": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "EC2_AMI"
        }
      },
      "RDS": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "RDS"
        }
      },
      "SYSTEMS_MANAGER_MANAGED_INSTANCE": {
        "target": "smithy.api#Unit",
        "traits": {
           "smithy.api#enumValue": "SYSTEMS_MANAGER_MANAGED_INSTANCE"
        }
      }
    }
```

```
    },
    "com.amazonaws.licensemanager#S3Location": {
      "type": "structure",
      "members": {
        "bucket": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Name of the S3 bucket reports are published to.</p>"
          }
        },
        "keyPrefix": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Prefix of the S3 bucket reports are published to.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>Details of the S3 bucket that report generator reports are published
to.</p>"
      }
    },
    "com.amazonaws.licensemanager#ServerInternalException": {
      "type": "structure",
      "members": {
        "Message": {
          "target": "com.amazonaws.licensemanager#Message"
        }
      },
      "traits": {
        "aws.protocols#awsQueryError": {
          "code": "InternalError",
          "httpResponseCode": 500
        },
        "smithy.api#documentation": "<p>The server experienced an internal error. Try again.</p>",
        "smithy.api#error": "server",
        "smithy.api#httpError": 500
      }
    },
    "com.amazonaws.licensemanager#SignedToken": {
      "type": "string",
      "traits": {
        "smithy.api#length": {
          "min": 4096
        }
      }
    },
    "com.amazonaws.licensemanager#StatusReasonMessage": {
```

```
        "type": "string",
        "traits":
{
            "smithy.api#length": {
                "min": 0,
                "max": 400
            },
            "smithy.api#pattern": "^[\\s\\S]+$"
        }
    },
    "com.amazonaws.licensemanager#String": {
        "type": "string"
    },
    "com.amazonaws.licensemanager#StringList": {
        "type": "list",
        "member": {
            "target": "com.amazonaws.licensemanager#String"
        }
    },
    "com.amazonaws.licensemanager#Tag": {
        "type": "structure",
        "members": {
            "Key": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Tag key.</p>"
                }
            },
            "Value": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation":
"<p>Tag value.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>Details about a tag for a license configuration.</p>"
        }
    },
    "com.amazonaws.licensemanager#TagKeyList": {
        "type": "list",
        "member": {
            "target": "com.amazonaws.licensemanager#String"
        }
    },
    "com.amazonaws.licensemanager#TagList": {
        "type": "list",
```

```
        "member": {
          "target": "com.amazonaws.licensemanager#Tag"
        }
      },
      "com.amazonaws.licensemanager#TagResource": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#TagResourceRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#TagResourceResponse"
        },
        "errors": [
          {
            "target":
 "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Adds the specified tags to the specified license configuration.</p>"
        }
      },
      "com.amazonaws.licensemanager#TagResourceRequest": {
        "type": "structure",
        "members": {
          "ResourceArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits":
 {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license
configuration.</p>",
              "smithy.api#required": {}
            }
          },
          "Tags": {
            "target": "com.amazonaws.licensemanager#TagList",
```

```
            "traits": {
              "smithy.api#documentation": "<p>One or more tags.</p>",
              "smithy.api#required": {}
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#TagResourceResponse": {
        "type": "structure",
        "members": {},
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#TokenData": {
        "type": "structure",
        "members": {
          "TokenId": {
            "target": "com.amazonaws.licensemanager#String",
             "traits": {
              "smithy.api#documentation": "<p>Token ID.</p>"
            }
          },
          "TokenType": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Type of token generated. The supported value is
<code>REFRESH_TOKEN</code>.</p>"
            }
          },
          "LicenseArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>"
            }
          },
          "ExpirationTime": {
            "target": "com.amazonaws.licensemanager#ISO8601DateTime",
            "traits": {
              "smithy.api#documentation": "<p>Token expiration time, in ISO8601-UTC
 format.</p>"
            }
          },
          "TokenProperties": {
            "target": "com.amazonaws.licensemanager#MaxSize3StringList",
```

```
            "traits": {
              "smithy.api#documentation": "<p>Data specified by the caller.</p>"
            }
          },
          "RoleArns": {
            "target": "com.amazonaws.licensemanager#ArnList",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Names (ARN) of the roles included in the
token.</p>"
            }
          },
          "Status": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token status. The possible values are
<code>AVAILABLE</code> and <code>DELETED</code>.</p>"
            }
          }
        },
        "traits": {

          "smithy.api#documentation": "<p>Describes a token.</p>"
        }
      },
      "com.amazonaws.licensemanager#TokenList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#TokenData"
        }
      },
      "com.amazonaws.licensemanager#TokenString": {
        "type": "string",
        "traits": {
          "smithy.api#length": {
            "min": 0,
            "max": 4096
          },
          "smithy.api#pattern": "^\\S+$"
        }
      },
      "com.amazonaws.licensemanager#TokenType": {
        "type": "enum",
        "members": {
          "REFRESH_TOKEN": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "REFRESH_TOKEN"
            }
```

```
            }
        }
    },
    "com.amazonaws.licensemanager#UnsupportedDigitalSignatureMethodException":
{
        "type": "structure",
        "members": {
            "Message": {
                "target": "com.amazonaws.licensemanager#Message"
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>The digital signature method is unsupported. Try your request
again.</p>",
            "smithy.api#error": "client",
            "smithy.api#httpError": 400
        }
    },
    "com.amazonaws.licensemanager#UntagResource": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#UntagResourceRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#UntagResourceResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
             },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Removes the specified tags from the specified license
configuration.</p>"
        }
    },
```

```
    "com.amazonaws.licensemanager#UntagResourceRequest": {
      "type": "structure",
      "members": {
        "ResourceArn": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license
configuration.</p>",
             "smithy.api#required": {}
          }
        },
        "TagKeys": {
          "target": "com.amazonaws.licensemanager#TagKeyList",
          "traits": {
            "smithy.api#documentation": "<p>Keys identifying the tags to remove.</p>",
            "smithy.api#required": {}
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#UntagResourceResponse": {
      "type": "structure",
      "members": {},
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanager#UpdateLicenseConfiguration": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#UpdateLicenseConfigurationRequest"
      },
      "output": {

 "target": "com.amazonaws.licensemanager#UpdateLicenseConfigurationResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
```

```
            },
            {
              "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
              "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
              "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Modifies the attributes of an existing license configuration.</p>"
          }
        },
        "com.amazonaws.licensemanager#UpdateLicenseConfigurationRequest": {
          "type": "structure",
          "members": {
            "LicenseConfigurationArn": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license
configuration.</p>",
                "smithy.api#required": {}
              }
            },
            "LicenseConfigurationStatus": {
              "target": "com.amazonaws.licensemanager#LicenseConfigurationStatus",
              "traits": {
                "smithy.api#documentation": "<p>New status of the license configuration.</p>"
              }
            },
            "LicenseRules": {
              "target": "com.amazonaws.licensemanager#StringList",
              "traits": {

    "smithy.api#documentation": "<p>New license rule. The only rule that you can add after you create a license\n
    configuration is licenseAffinityToHost.</p>"
              }
            },
            "LicenseCount": {
              "target": "com.amazonaws.licensemanager#BoxLong",
              "traits": {
                "smithy.api#documentation": "<p>New number of licenses managed by the license
configuration.</p>"
              }
            },
            "LicenseCountHardLimit": {
```

```
            "target": "com.amazonaws.licensemanager#BoxBoolean",
            "traits": {
              "smithy.api#documentation": "<p>New hard limit of the number of available licenses.</p>"
            }
          },
          "Name": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>New name
 of the license configuration.</p>"
            }
          },
          "Description": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>New description of the license configuration.</p>"
            }
          },
          "ProductInformationList": {
            "target": "com.amazonaws.licensemanager#ProductInformationList",
            "traits": {
              "smithy.api#documentation": "<p>New product information.</p>"
            }
          },
          "DisassociateWhenNotFound": {
            "target": "com.amazonaws.licensemanager#BoxBoolean",
            "traits": {
              "smithy.api#documentation": "<p>When true, disassociates a resource when software is
uninstalled.</p>"
            }
          }
        },
        "traits":
{
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#UpdateLicenseConfigurationResponse": {
        "type": "structure",
        "members": {},
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#UpdateLicenseManagerReportGenerator": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#UpdateLicenseManagerReportGeneratorRequest"
```

```
        },
        "output": {
            "target": "com.amazonaws.licensemanager#UpdateLicenseManagerReportGeneratorResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
             },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Updates a report generator.</p>\n        <p>After you make changes to a
report generator, it starts generating new reports within 60 minutes of being updated.</p>"
        }
    },
    "com.amazonaws.licensemanager#UpdateLicenseManagerReportGeneratorRequest":
{
        "type": "structure",
        "members": {
            "LicenseManagerReportGeneratorArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the report generator to
update.</p>",
                    "smithy.api#required": {}
                }
            },
            "ReportGeneratorName": {
```

```
            "target": "com.amazonaws.licensemanager#ReportGeneratorName",
            "traits": {
              "smithy.api#documentation": "<p>Name of the report generator.</p>",
              "smithy.api#required": {}
            }
          },
          "Type": {
            "target": "com.amazonaws.licensemanager#ReportTypeList",
            "traits": {
              "smithy.api#documentation":
 "<p>Type of reports to generate. The following report types are supported:</p>\n        <ul>\n        <li>\n
<p>License configuration report - Reports the number and details of consumed licenses for a license
configuration.</p>\n        </li>\n        <li>\n        <p>Resource report - Reports the tracked licenses and
resource consumption for a license configuration.</p>\n        </li>\n        </ul>",
              "smithy.api#required": {}
            }
          },
          "ReportContext": {
            "target": "com.amazonaws.licensemanager#ReportContext",
            "traits": {
              "smithy.api#documentation": "<p>The report context.</p>",
              "smithy.api#required": {}
            }
          },
          "ReportFrequency": {
            "target": "com.amazonaws.licensemanager#ReportFrequency",
            "traits":
 {
              "smithy.api#documentation": "<p>Frequency by which reports are generated.</p>",
              "smithy.api#required": {}
            }
          },
          "ClientToken": {
            "target": "com.amazonaws.licensemanager#ClientRequestToken",
            "traits": {
              "smithy.api#documentation": "<p>Unique, case-sensitive identifier that you provide to ensure the
idempotency of the request.</p>",
              "smithy.api#required": {}
            }
          },
          "Description": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Description of the report generator.</p>"
            }
          }
        },
        "traits": {
```

```
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#UpdateLicenseManagerReportGeneratorResponse":
{
        "type": "structure",
        "members": {},
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#UpdateLicenseSpecificationsForResource": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#UpdateLicenseSpecificationsForResourceRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#UpdateLicenseSpecificationsForResourceResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },

            {
                "target": "com.amazonaws.licensemanager#InvalidResourceStateException"
            },
            {
                "target": "com.amazonaws.licensemanager#LicenseUsageException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Adds or removes the specified license configurations for the specified
Amazon Web Services resource.</p>\n          <p>You can update the license specifications of AMIs, instances, and
hosts.\n          You cannot update the license specifications for launch templates and CloudFormation templates, \n
 as they send license configurations to the operation that creates the resource.</p>"
```

```
        }
      },

    "com.amazonaws.licensemanager#UpdateLicenseSpecificationsForResourceRequest": {
      "type": "structure",
      "members": {
        "ResourceArn": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the Amazon Web Services
resource.</p>",
            "smithy.api#required": {}
          }
        },
        "AddLicenseSpecifications": {
          "target": "com.amazonaws.licensemanager#LicenseSpecifications",
          "traits": {
            "smithy.api#documentation": "<p>ARNs of the license configurations to add.</p>"
          }
        },
        "RemoveLicenseSpecifications": {
          "target": "com.amazonaws.licensemanager#LicenseSpecifications",
          "traits": {
            "smithy.api#documentation":
 "<p>ARNs of the license configurations to remove.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#UpdateLicenseSpecificationsForResourceResponse": {
      "type": "structure",
      "members": {},
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanager#UpdateServiceSettings": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#UpdateServiceSettingsRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#UpdateServiceSettingsResponse"
      },
      "errors": [
```

```
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Updates License Manager settings for the current Region.</p>"
        }
    },
    "com.amazonaws.licensemanager#UpdateServiceSettingsRequest": {
        "type": "structure",
        "members": {
            "S3BucketArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the Amazon S3 bucket where
the License
 Manager information is stored.</p>"
                }
            },
            "SnsTopicArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the Amazon SNS topic used
for License Manager alerts.</p>"
                }
            },
            "OrganizationConfiguration": {
                "target": "com.amazonaws.licensemanager#OrganizationConfiguration",
                "traits": {
                    "smithy.api#documentation": "<p>Enables integration with Organizations for cross-account
discovery.</p>"
                }
            },
            "EnableCrossAccountsDiscovery": {
                "target": "com.amazonaws.licensemanager#BoxBoolean",
                "traits": {
```

```
                "smithy.api#documentation": "<p>Activates cross-account discovery.</p>"

            }
                }
            },
            "traits": {
                "smithy.api#input": {}
            }
        },
        "com.amazonaws.licensemanager#UpdateServiceSettingsResponse": {
            "type": "structure",
            "members": {},
            "traits": {
                "smithy.api#output": {}
            }
        },
        "com.amazonaws.licensemanager#UsageOperation": {
            "type": "string",
            "traits": {
                "smithy.api#length": {
                    "min": 0,
                    "max": 50
                }
            }
        },
        "com.amazonaws.licensemanager#ValidationException": {
            "type": "structure",
            "members": {
                "Message": {
                    "target": "com.amazonaws.licensemanager#Message"
                }
            },
            "traits": {
                "smithy.api#documentation": "<p>The provided input is not valid. Try your request again.</p>",

        "smithy.api#error": "client",
                "smithy.api#httpError": 400
            }
        }
    }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
```

```
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Deletes the specified license.
func (c *Client) DeleteLicense(ctx context.Context, params *DeleteLicenseInput, optFns ...func(*Options))
(*DeleteLicenseOutput, error) {
 if params == nil {
  params = &DeleteLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "DeleteLicense", params, optFns,
c.addOperationDeleteLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*DeleteLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type DeleteLicenseInput struct {

 // Amazon Resource Name (ARN) of the license.
 //
 // This member is required.
 LicenseArn *string

 // Current version of the license.
 //
 // This member is required.
 SourceVersion
 *string

 noSmithyDocumentSerde
}

type DeleteLicenseOutput struct {

 // Date when the license is deleted.
 DeletionDate *string

 // License status.
 Status types.LicenseDeletionStatus
```

```
 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationDeleteLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpDeleteLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpDeleteLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "DeleteLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err !=
 nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
```

```
 return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addOpDeleteLicenseValidationMiddleware(stack);
 err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opDeleteLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opDeleteLicense(region string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName: "DeleteLicense",
 }
}
```

1.421 protobuf 3.20.3

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1.422 packaging 20.4

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1.423 tabulate 0.8.2

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1.424 anytree 2.8.0

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1.426 scram 1.1.2

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1.427 tenacity 8.0.1

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1.428 paesslerag-jsonpath 0.1.1

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1.429 klauspost-compress 1.17.7

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1.432 goexpect 0.0.0-20210430020637-ab937bf7fd6f

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1.433 grpc-go 1.60.1

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1.435 pyparsing 3.0.7

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1.436 kube-openapi 0.0.0-20221012153701-172d655c2280

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// limitations under the License.

package spec

// License information for the exposed API.
//
// For more information: http://goo.gl/8us55a#licenseObject
type License struct {
 Name string `json:"name,omitempty"`
 URL  string `json:"url,omitempty"`
}
# This source code was written by the Go contributors.
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# visible at https://tip.golang.org/CONTRIBUTORS.
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// limitations under the License.

package spec
```

```
import "testing"

func TestIntegrationLicense(t *testing.T) {
 license := License{Name: "the name", URL: "the url"}
 const licenseJSON = `{"name":"the name","url":"the url"}`
 const licenseYAML = "name: the name\nurl: the url\n"

 assertSerializeJSON(t, license, licenseJSON)
 assertParsesJSON(t, licenseJSON, license)
}
```

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1.437 aws-sdk-go-v2-internal-configsources 1.3.15

1.437.1 Available under license :

```
name: License Scan

on: [pull_request]

jobs:
 licensescan:
   name: License Scan
   runs-on: ubuntu-latest
   strategy:
     matrix:
       python-version: [3.9]

   steps:
     - name: Checkout target
       uses: actions/checkout@v2
       with:
         path: sdkbase
         ref: ${{ github.base_ref }}
     - name: Checkout this ref
       uses: actions/checkout@v2
       with:
         path: new-ref
         fetch-depth: 0
     - name: Get Diff
       run: git --git-dir ./new-ref/.git diff --name-only --diff-filter=ACMRT ${{ github.event.pull_request.base.sha }}
${{ github.sha }} > refDiffFiles.txt
     - name: Get Target Files
       run: git --git-dir ./sdkbase/.git ls-files | grep -xf refDiffFiles.txt - > targetFiles.txt
     - name: Checkout scancode
       uses: actions/checkout@v2
       with:
         repository: nexB/scancode-toolkit
```

```
        path: scancode-toolkit
        fetch-depth: 1
    - name: Set up Python ${{ matrix.python-version }}
      uses: actions/setup-python@v2
      with:
        python-version: ${{ matrix.python-version }}
    # ScanCode
    - name: Self-configure scancode
      working-directory: ./scancode-toolkit
      run: ./scancode --help
    - name: Run Scan code on target
      run: cat targetFiles.txt | while read filename; do echo ./sdkbase/$filename; done | xargs ./scancode-toolkit/scancode -l -n 30 --json-pp - | grep short_name | sort | uniq >> old-licenses.txt
    - name: Run Scan code on pr ref
      run: cat refDiffFiles.txt | while read filename; do echo ./new-ref/$filename; done | xargs ./scancode-toolkit/scancode -l -n 30 --json-pp - | grep short_name | sort | uniq >> new-licenses.txt
    # compare
    - name: License test
      run: if ! cmp old-licenses.txt new-licenses.txt; then echo "Licenses differ! Failing."; exit -1; else echo "Licenses are the same. Success."; exit 0; fi
CreateLicense
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
  OperationInputValidation
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
 Build stack step
  ClientRequestID
  ComputeContentLength
  UserAgent
  AddTimeOffsetMiddleware
  RecursionDetection
 Finalize stack step
  ResolveAuthScheme
  GetIdentity
  ResolveEndpointV2
  disableHTTPS
  ComputePayloadHash
  Retry
  RetryMetricsHeader
  setLegacyContextSigningOptions
  Signing
 Deserialize stack step
  AddRawResponseToMetadata
```

```
  ErrorCloseResponseBody
  CloseResponseBody
  ResponseErrorWrapper
  RequestIDRetriever
  OperationDeserializer
  AddTimeOffsetMiddleware
  RecordResponseTiming
  RequestResponseLogger
ListReceivedLicenses
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
 Build stack step
  ClientRequestID
  ComputeContentLength
  UserAgent
  AddTimeOffsetMiddleware
  RecursionDetection
 Finalize stack step
  ResolveAuthScheme
  GetIdentity
  ResolveEndpointV2
  disableHTTPS
  ComputePayloadHash
  Retry
  RetryMetricsHeader
  setLegacyContextSigningOptions
  Signing
 Deserialize stack step
  AddRawResponseToMetadata
  ErrorCloseResponseBody
  CloseResponseBody
  ResponseErrorWrapper
  RequestIDRetriever
  OperationDeserializer
  AddTimeOffsetMiddleware
  RecordResponseTiming
  RequestResponseLogger
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
```

```
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Checks out the specified license.
//
// If the account that created the license is the same that is performing the
// check out, you must specify the account as the beneficiary.
func (c *Client) CheckoutLicense(ctx context.Context, params *CheckoutLicenseInput, optFns ...func(*Options))
(*CheckoutLicenseOutput, error) {
 if params == nil {
  params = &CheckoutLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "CheckoutLicense", params, optFns,
c.addOperationCheckoutLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*CheckoutLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type CheckoutLicenseInput struct {

 //
 Checkout type.
 //
 // This member is required.
 CheckoutType types.CheckoutType

 // Unique, case-sensitive identifier that you provide to ensure the idempotency of
 // the request.
 //
 // This member is required.
 ClientToken *string

 // License entitlements.
 //
 // This member is required.
 Entitlements []types.EntitlementData
```

```
// Key fingerprint identifying the license.
//
// This member is required.
KeyFingerprint *string

// Product SKU.
//
// This member is required.
ProductSKU *string

// License beneficiary.
Beneficiary *string

// Node ID.
NodeId *string

noSmithyDocumentSerde
}

type CheckoutLicenseOutput struct {

// Checkout type.
CheckoutType types.CheckoutType

// Allowed license entitlements.
EntitlementsAllowed []types.EntitlementData

// Date and time at which the license checkout expires.
Expiration *string

// Date and time at which the license checkout is issued.
IssuedAt *string

// Amazon Resource Name (ARN) of the checkout license.
LicenseArn
*string

// License consumption token.
LicenseConsumptionToken *string

// Node ID.
NodeId *string

// Signed token.
SignedToken *string

// Metadata pertaining to the operation's result.
ResultMetadata middleware.Metadata
```

```
 noSmithyDocumentSerde
}

func (c *Client) addOperationCheckoutLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpCheckoutLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpCheckoutLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "CheckoutLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack,
 options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
```

```
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
  return err
 }
 if err = addUserAgentRetryMode(stack,
 options); err != nil {
  return err
 }
 if err = addOpCheckoutLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opCheckoutLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opCheckoutLicense(region string) *awsmiddleware.RegisterServiceMetadata
{
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
```

```
 ServiceID:     ServiceID,
 OperationName: "CheckoutLicense",
 }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Creates a license.
func (c *Client) CreateLicense(ctx context.Context, params *CreateLicenseInput, optFns ...func(*Options))
(*CreateLicenseOutput, error) {
 if params == nil {
  params = &CreateLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "CreateLicense", params, optFns,
c.addOperationCreateLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*CreateLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type CreateLicenseInput struct {

 // License beneficiary.
 //
 // This member is required.
 Beneficiary *string

 // Unique, case-sensitive identifier that you provide to ensure the idempotency of
 // the request.
 //
 //
 This member is required.
 ClientToken *string
```

```
// Configuration for consumption of the license. Choose a provisional
// configuration for workloads running with continuous connectivity. Choose a
// borrow configuration for workloads with offline usage.
//
// This member is required.
ConsumptionConfiguration *types.ConsumptionConfiguration

// License entitlements.
//
// This member is required.
Entitlements []types.Entitlement

// Home Region for the license.
//
// This member is required.
HomeRegion *string

// License issuer.
//
// This member is required.
Issuer *types.Issuer

// License name.
//
// This member is required.
LicenseName *string

// Product name.
//
// This member is required.
ProductName *string

// Product SKU.
//
// This member is required.
ProductSKU *string

// Date and time range during which the license is valid, in ISO8601-UTC format.
//
// This member is required.
Validity *types.DatetimeRange

// Information about
the license.
LicenseMetadata []types.Metadata

noSmithyDocumentSerde
```

```
}

type CreateLicenseOutput struct {

 // Amazon Resource Name (ARN) of the license.
 LicenseArn *string

 // License status.
 Status types.LicenseStatus

 // License version.
 Version *string

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationCreateLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpCreateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpCreateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "CreateLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if
 err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
```

```
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return
 err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
  return err
 }
 if err = addUserAgentRetryMode(stack, options); err != nil {
  return err
 }
 if err = addOpCreateLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opCreateLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
```

```
 return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opCreateLicense(region string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName:
 "CreateLicense",
 }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package grafana

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/grafana/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Removes the Grafana Enterprise license from a workspace.
func (c *Client) DisassociateLicense(ctx context.Context, params *DisassociateLicenseInput, optFns
...func(*Options)) (*DisassociateLicenseOutput, error) {
 if params == nil {
  params = &DisassociateLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "DisassociateLicense", params, optFns,
c.addOperationDisassociateLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*DisassociateLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
```

```
}

type DisassociateLicenseInput struct {

 // The type of license to remove from the workspace.
 //
 // This member is required.
 LicenseType types.LicenseType

 //
 The ID of the workspace to remove the Grafana Enterprise license from.
 //
 // This member is required.
 WorkspaceId *string

 noSmithyDocumentSerde
}

type DisassociateLicenseOutput struct {

 // A structure containing information about the workspace.
 //
 // This member is required.
 Workspace *types.WorkspaceDescription

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationDisassociateLicenseMiddlewares(stack *middleware.Stack, options Options) (err
error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsRestjson1_serializeOpDisassociateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsRestjson1_deserializeOpDisassociateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "DisassociateLicense");
 err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }
```

```
if err = addlegacyEndpointContextSetter(stack, options); err != nil {
 return err
}
if err = addSetLoggerMiddleware(stack, options); err != nil {
 return err
}
if err = addClientRequestID(stack); err != nil {
 return err
}
if err = addComputeContentLength(stack); err != nil {
 return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
 return err
}
if err = addComputePayloadSHA256(stack); err != nil {
 return err
}
if err = addRetry(stack, options); err != nil {
 return err
}
if err = addRawResponseToMetadata(stack); err != nil {
 return err
}
if err = addRecordResponseTiming(stack); err != nil {
 return err
}
if err = addClientUserAgent(stack, options); err != nil {
 return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil
{
 return err
}
if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
 return err
}
if err = addTimeOffsetBuild(stack, c); err != nil {
 return err
}
if err = addUserAgentRetryMode(stack, options); err != nil {
 return err
}
if err = addOpDisassociateLicenseValidationMiddleware(stack); err != nil {
```

```
 return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opDisassociateLicense(options.Region),
middleware.Before); err != nil {
 return err
 }
 if err = addRecursionDetection(stack); err != nil {
 return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
 return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
 return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
 return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
 return err
 }
 return nil
}

func newServiceMetadataMiddleware_opDisassociateLicense(region string)
*awsmiddleware.RegisterServiceMetadata
 {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:    ServiceID,
  OperationName: "DisassociateLicense",
 }
}
CheckoutLicense
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
  OperationInputValidation
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
 Build stack step
  ClientRequestID
  ComputeContentLength
  UserAgent
  AddTimeOffsetMiddleware
```

RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
AddTimeOffsetMiddleware
RecordResponseTiming
RequestResponseLogger
DisassociateLicense
Initialize stack step
RegisterServiceMetadata
legacyEndpointContextSetter
SetLogger
OperationInputValidation
Serialize stack step
setOperationInput
ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
UserAgent
AddTimeOffsetMiddleware
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step

```
    AddRawResponseToMetadata
    ErrorCloseResponseBody
    CloseResponseBody
    ResponseErrorWrapper
    RequestIDRetriever
    OperationDeserializer
    AddTimeOffsetMiddleware
    RecordResponseTiming
    RequestResponseLogger
  CheckoutBorrowLicense
   Initialize stack step
    RegisterServiceMetadata
    legacyEndpointContextSetter
    SetLogger
    OperationInputValidation
   Serialize stack step
    setOperationInput
    ResolveEndpoint
    OperationSerializer
   Build stack step
    ClientRequestID
    ComputeContentLength
    UserAgent
    AddTimeOffsetMiddleware
    RecursionDetection
   Finalize stack step
    ResolveAuthScheme
    GetIdentity
    ResolveEndpointV2
    disableHTTPS
    ComputePayloadHash
    Retry
    RetryMetricsHeader
    setLegacyContextSigningOptions
    Signing
   Deserialize stack step
    AddRawResponseToMetadata
    ErrorCloseResponseBody
    CloseResponseBody
    ResponseErrorWrapper
    RequestIDRetriever
    OperationDeserializer
    AddTimeOffsetMiddleware
    RecordResponseTiming
    RequestResponseLogger
  // Code generated by smithy-go-codegen DO NOT EDIT.

  package licensemanager
```

```
import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Lists received licenses.
func (c *Client) ListReceivedLicenses(ctx context.Context, params *ListReceivedLicensesInput, optFns
...func(*Options)) (*ListReceivedLicensesOutput, error) {
 if params == nil {
  params = &ListReceivedLicensesInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "ListReceivedLicenses", params, optFns,
c.addOperationListReceivedLicensesMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*ListReceivedLicensesOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type ListReceivedLicensesInput struct {

 // Filters to scope the results. The following filters are supported:
 //
 //   - ProductSKU
 //
 //   - Status
 //
 //
   - Fingerprint
 //
 //   - IssuerName
 //
 //   - Beneficiary
 Filters []types.Filter

 // Amazon Resource Names (ARNs) of the licenses.
 LicenseArns []string

 // Maximum number of results to return in a single call.
```

```
 MaxResults *int32

 // Token for the next set of results.
 NextToken *string

 noSmithyDocumentSerde
}

type ListReceivedLicensesOutput struct {

 // Received license details.
 Licenses []types.GrantedLicense

 // Token for the next set of results.
 NextToken *string

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationListReceivedLicensesMiddlewares(stack *middleware.Stack, options Options) (err
error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpListReceivedLicenses{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpListReceivedLicenses{},
 middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "ListReceivedLicenses"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
```

```
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err
 = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
  return err
 }
 if err = addUserAgentRetryMode(stack, options); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opListReceivedLicenses(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
```

```
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opListReceivedLicenses(region
 string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName: "ListReceivedLicenses",
 }
}
AssociateLicense
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
  OperationInputValidation
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
 Build stack step
  ClientRequestID
  ComputeContentLength
  UserAgent
  AddTimeOffsetMiddleware
  RecursionDetection
 Finalize stack step
  ResolveAuthScheme
  GetIdentity
  ResolveEndpointV2
  disableHTTPS
  ComputePayloadHash
  Retry
  RetryMetricsHeader
  setLegacyContextSigningOptions
  Signing
 Deserialize stack step
  AddRawResponseToMetadata
```

```
 ErrorCloseResponseBody
 CloseResponseBody
 ResponseErrorWrapper
 RequestIDRetriever
 OperationDeserializer
 AddTimeOffsetMiddleware
 RecordResponseTiming
 RequestResponseLogger
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Gets detailed information about the specified license.
func (c *Client) GetLicense(ctx context.Context, params *GetLicenseInput, optFns ...func(*Options))
(*GetLicenseOutput, error) {
 if params == nil {
  params = &GetLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "GetLicense", params, optFns,
c.addOperationGetLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*GetLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type GetLicenseInput struct {

 // Amazon Resource Name (ARN) of the license.
 //
 // This member is required.
 LicenseArn *string

 // License version.
 Version *string
```

```
 noSmithyDocumentSerde
}

type
 GetLicenseOutput struct {

 // License details.
 License *types.License

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationGetLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpGetLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpGetLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "GetLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err
 != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
```

```
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
  return err
 }
 if err = addUserAgentRetryMode(stack, options); err != nil {
  return err
 }
 if err = addOpGetLicenseValidationMiddleware(stack);
 err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opGetLicense(options.Region), middleware.Before);
err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
```

```
 return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opGetLicense(region string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:    ServiceID,
  OperationName: "GetLicense",
 }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package grafana

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/grafana/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Assigns a Grafana Enterprise license to a workspace. To upgrade, you must use
// ENTERPRISE for the licenseType , and pass in a valid Grafana Labs token for the
// grafanaToken . Upgrading to Grafana Enterprise incurs additional fees. For more
// information, see [Upgrade a workspace to Grafana Enterprise].
//
// [Upgrade a workspace to Grafana Enterprise]: https://docs.aws.amazon.com/grafana/latest/userguide/upgrade-to-
Grafana-Enterprise.html
func (c *Client) AssociateLicense(ctx context.Context, params *AssociateLicenseInput, optFns ...func(*Options))
(*AssociateLicenseOutput, error) {
 if params == nil {
  params = &AssociateLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx,
 "AssociateLicense", params, optFns, c.addOperationAssociateLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*AssociateLicenseOutput)
```

```
 out.ResultMetadata = metadata
 return out, nil
}

type AssociateLicenseInput struct {

 // The type of license to associate with the workspace.
 //
 // Amazon Managed Grafana workspaces no longer support Grafana Enterprise free
 // trials.
 //
 // This member is required.
 LicenseType types.LicenseType

 // The ID of the workspace to associate the license with.
 //
 // This member is required.
 WorkspaceId *string

 // A token from Grafana Labs that ties your Amazon Web Services account with a
 // Grafana Labs account. For more information, see [Link your account with Grafana Labs].
 //
 // [Link your account with Grafana Labs]: https://docs.aws.amazon.com/grafana/latest/userguide/upgrade-to-
Grafana-Enterprise.html#AMG-workspace-register-enterprise
 GrafanaToken *string

 noSmithyDocumentSerde
}

type AssociateLicenseOutput
 struct {

 // A structure containing data about the workspace.
 //
 // This member is required.
 Workspace *types.WorkspaceDescription

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationAssociateLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsRestjson1_serializeOpAssociateLicense{}, middleware.After)
```

```
if err != nil {
 return err
}
err = stack.Deserialize.Add(&awsRestjson1_deserializeOpAssociateLicense{}, middleware.After)
if err != nil {
 return err
}
if err := addProtocolFinalizerMiddlewares(stack, options, "AssociateLicense"); err != nil {
 return fmt.Errorf("add protocol finalizers: %v", err)
}

if err = addlegacyEndpointContextSetter(stack, options); err != nil {
 return err
}
if err = addSetLoggerMiddleware(stack,
options); err != nil {
 return err
}
if err = addClientRequestID(stack); err != nil {
 return err
}
if err = addComputeContentLength(stack); err != nil {
 return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
 return err
}
if err = addComputePayloadSHA256(stack); err != nil {
 return err
}
if err = addRetry(stack, options); err != nil {
 return err
}
if err = addRawResponseToMetadata(stack); err != nil {
 return err
}
if err = addRecordResponseTiming(stack); err != nil {
 return err
}
if err = addClientUserAgent(stack, options); err != nil {
 return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
```

```
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
  return err
 }
 if err = addUserAgentRetryMode(stack,
 options); err != nil {
  return err
 }
 if err = addOpAssociateLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opAssociateLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opAssociateLicense(region string)
*awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName: "AssociateLicense",
 }
}
ListLicenses
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
```

Serialize stack step
setOperationInput
ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
UserAgent
AddTimeOffsetMiddleware
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
AddTimeOffsetMiddleware
RecordResponseTiming
RequestResponseLogger
AWS SDK for Go
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Copyright 2014-2015 Stripe, Inc.
{
  "smithy": "2.0",
  "shapes": {
    "com.amazonaws.licensemanagerlinuxsubscriptions#BoxInteger": {
      "type": "integer"
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#BoxLong": {
      "type": "long"
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#DeregisterSubscriptionProvider": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#DeregisterSubscriptionProviderRequest"
      },
      "output": {

```
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#DeregisterSubscriptionProviderResponse"
          },
          "errors": [
            {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
            },
            {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ResourceNotFoundException"
            },

        {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
            },
            {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Remove a third-party subscription provider from the Bring Your Own
License (BYOL) subscriptions \n\t\t\tregistered to your account.</p>",
            "smithy.api#http": {
              "code": 200,
              "method": "POST",
              "uri": "/subscription/DeregisterSubscriptionProvider"
            },
            "smithy.api#idempotent": {}
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#DeregisterSubscriptionProviderRequest": {
          "type": "structure",
          "members": {
            "SubscriptionProviderArn": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn",
               "traits": {
                 "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the subscription provider
resource to deregister.</p>",
                 "smithy.api#required": {}
              }
            }
          },
          "traits": {
            "smithy.api#input": {}
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#DeregisterSubscriptionProviderResponse": {
          "type": "structure",
          "members": {},
          "traits": {
```

```
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#Filter": {
        "type": "structure",
        "members": {
            "Name": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The type of name to filter by.</p>"
                }
            },
            "Values": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringList",
                "traits": {
                    "smithy.api#documentation": "<p>One or more values for the name to filter by.</p>"
                }
            },
            "Operator": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Operator",
                "traits": {
                    "smithy.api#documentation": "<p>An operator for filtering results.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>A filter object that is used to return more specific results from a describe
operation.\n      Filters can be used to match a set of resources by specific criteria.</p>"
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#FilterList": {
        "type":
 "list",
        "member": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Filter"
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#GetRegisteredSubscriptionProvider": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#GetRegisteredSubscriptionProviderRequest"
        },
        "output": {
            "target":
"com.amazonaws.licensemanagerlinuxsubscriptions#GetRegisteredSubscriptionProviderResponse"
        },
        "errors": [
            {
```

```
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
            },
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ResourceNotFoundException"
            },
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
            },
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Get details for a Bring Your Own License (BYOL) subscription that's registered to your account.</p>",
            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/subscription/GetRegisteredSubscriptionProvider"
            },
            "smithy.api#idempotent": {}
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#GetRegisteredSubscriptionProviderRequest": {
        "type": "structure",
        "members": {
            "SubscriptionProviderArn": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn",
                "traits": {
                    "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the BYOL registration resource to get details for.</p>",
                    "smithy.api#required": {}
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#GetRegisteredSubscriptionProviderResponse": {
        "type": "structure",
        "members": {
            "SubscriptionProviderArn": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn",
                "traits": {
                    "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) for the BYOL registration resource specified in the request.</p>"
                }
```

```
            },
            "SubscriptionProviderSource": {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderSource",

          "traits": {
                "smithy.api#documentation": "<p>The subscription provider for the BYOL registration resource
specified \n\t\t\tin the request.</p>"
               }
            },
            "SecretArn": {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SecretArn",
               "traits": {
                  "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the third-party access
secret stored in Secrets Manager for the BYOL \n\t\t\tregistration resource specified in the request.</p>"
               }
            },
            "SubscriptionProviderStatus": {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderStatus",
               "traits": {
                  "smithy.api#documentation": "<p>The status of the Linux subscription provider access token from the
last \n\t\t\tsuccessful subscription data request.</p>"
                }
            },
            "SubscriptionProviderStatusMessage": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The detailed message from your subscription provider token
status.</p>"
               }
            },
            "LastSuccessfulDataRetrievalTime": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The timestamp from the last time License Manager retrieved
subscription details \n\t\t\tfrom your registered third-party Linux subscription provider.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#output": {}
         }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettings": {
         "type": "operation",
         "input": {
            "target":
 "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettingsRequest"
         },
```

```
        "output": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettingsResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
            },
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
            },
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists the Linux subscriptions service settings for your account.</p>",
            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/subscription/GetServiceSettings"

            },
            "smithy.api#idempotent": {}
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettingsRequest": {
        "type": "structure",
        "members": {}
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettingsResponse": {
        "type": "structure",
        "members": {
            "LinuxSubscriptionsDiscovery": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscovery",
                "traits": {
                    "smithy.api#documentation": "<p>Lists if discovery has been enabled for Linux subscriptions.</p>"
                }
            },
            "LinuxSubscriptionsDiscoverySettings": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscoverySettings",
                "traits": {
                    "smithy.api#documentation": "<p>Lists
 the settings defined for Linux subscriptions discovery. The settings include if\n      Organizations integration has
been enabled, and which Regions data will be aggregated from.</p>"
                }
            },
            "Status": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Status",
```

```
            "traits": {
                "smithy.api#documentation": "<p>Indicates the status of Linux subscriptions settings being
applied.</p>"
            }
        },
        "StatusMessage": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringMap",
            "traits": {
                "smithy.api#documentation": "<p>A message which details the Linux subscriptions service settings
current status.</p>"
            }
        },
        "HomeRegions": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringList",
             "traits": {
                "smithy.api#documentation": "<p>The Region in which License Manager displays the aggregated
data for Linux\n      subscriptions.</p>"
            }
        }
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#Instance": {
      "type": "structure",
      "members": {
        "AmiId": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The AMI ID used to launch the instance.</p>"
            }
        },
        "InstanceID": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The instance ID of the resource.</p>"
            }
        },
        "InstanceType": {
            "target": "smithy.api#String",
            "traits":
{
                "smithy.api#documentation": "<p>The instance type of the resource.</p>"
            }
        },
        "AccountID": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The account ID which owns the instance.</p>"
            }
```

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        },
        "Status": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The status of the instance.</p>"
          }
        },
        "Region": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The Region the instance is running in.</p>"
          }
        },
        "UsageOperation": {
          "target": "smithy.api#String",

   "traits": {
            "smithy.api#documentation": "<p>The usage operation of the instance. For more information, see For more information, see\n        <a href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/linux-subscriptions-usage-operation.html\">Usage\n        operation values</a> in the <i>License Manager User Guide</i>.</p>"
          }
        },
        "ProductCode": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ProductCodeList",
          "traits": {
            "smithy.api#documentation": "<p>The product code for the instance. For more information, see <a href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/linux-subscriptions-usage-operation.html\">Usage\n        operation values</a> in the <i>License Manager User Guide</i> .</p>"
          }
        },
        "LastUpdatedTime": {
          "target": "smithy.api#String",
           "traits": {
            "smithy.api#documentation": "<p>The time in which the last discovery updated the instance details.</p>"
          }
        },
        "SubscriptionName": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The name of the license subscription that the instance uses.</p>"
          }
        },
        "OsVersion": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The operating system software version that runs on your
```

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instance.</p>"
                }
            },
            "SubscriptionProviderCreateTime": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The timestamp when you registered
 the third-party Linux subscription \n\t\t\tprovider for the subscription that the instance uses.</p>"
                }
            },
            "SubscriptionProviderUpdateTime": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The timestamp from the last time that the instance synced with the
registered \n\t\t\tthird-party Linux subscription provider.</p>"
                }
            },
            "DualSubscription": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>Indicates that you have two different license subscriptions for
\n\t\t\tthe same software on your instance.</p>"
                }
            },
            "RegisteredWithSubscriptionProvider": {
                "target": "smithy.api#String",
                "traits": {

      "smithy.api#documentation": "<p>Indicates that your instance uses a BYOL license subscription from \n\t\t\ta
third-party Linux subscription provider that you've registered with License Manager.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>Details discovered information about a running instance using Linux
subscriptions.</p>"
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#InstanceList": {
        "type": "list",
        "member": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Instance"
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException": {
        "type": "structure",
        "members": {
            "message": {
```

```
            "target": "smithy.api#String"
          }
        },
        "traits": {
          "smithy.api#documentation":
"<p>An exception occurred with the service.</p>",
          "smithy.api#error": "server"
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#LicenseManagerLinuxSubscriptions": {
        "type": "service",
        "version": "2018-05-10",
        "operations": [
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#DeregisterSubscriptionProvider"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#GetRegisteredSubscriptionProvider"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettings"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstances"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptions"
           },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListRegisteredSubscriptionProviders"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListTagsForResource"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#RegisterSubscriptionProvider"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#TagResource"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UntagResource"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettings"
          }
        ],
        "traits": {
```

```
    "aws.api#service": {
      "sdkId": "License Manager Linux Subscriptions",
       "arnNamespace": "license-manager-linux-subscriptions",
      "cloudTrailEventSource": "license-manager-linux-subscriptions.amazonaws.com"
    },
    "aws.auth#sigv4": {
      "name": "license-manager-linux-subscriptions"
    },
    "aws.protocols#restJson1": {},
    "smithy.api#cors": {
      "additionalAllowedHeaders": [
        "*",
        "content-type",
        "x-amz-content-sha256",
        "x-amz-user-agent",
        "x-amzn-platform-id",
        "x-amzn-trace-id"
      ],
      "additionalExposedHeaders": [
        "x-amzn-errortype",
        "x-amzn-requestid",
        "x-amzn-trace-id"
      ]
    },
    "smithy.api#documentation": "<p>With License Manager,
you can discover and track your commercial Linux subscriptions on running\n      Amazon EC2 instances.</p>",
    "smithy.api#title": "AWS License Manager Linux Subscriptions",
    "smithy.rules#endpointRuleSet": {
      "version": "1.0",
      "parameters": {
        "Region": {
          "builtIn": "AWS::Region",
          "required": false,
          "documentation": "The AWS region used to dispatch the request.",
          "type": "String"
        },
        "UseDualStack": {
          "builtIn": "AWS::UseDualStack",
          "required": true,
          "default": false,
          "documentation": "When true, use the dual-stack endpoint. If the configured endpoint does not
support dual-stack, dispatching the request MAY return an error.",
           "type": "Boolean"
        },
        "UseFIPS": {
          "builtIn": "AWS::UseFIPS",
          "required": true,
          "default": false,
```

```
            "documentation": "When true, send this request to the FIPS-compliant regional endpoint. If the configured endpoint does not have a FIPS compliant endpoint, dispatching the request will return an error.",
            "type": "Boolean"
          },
          "Endpoint": {
            "builtIn": "SDK::Endpoint",
            "required": false,
            "documentation": "Override the endpoint used to send this request",
            "type": "String"
          }
        },
        "rules": [
          {
            "conditions": [
              {
                "fn": "isSet",
                "argv": [
                  {
                    "ref": "Endpoint"
                  }
                ]
              }
            ],
            "rules": [
              {
                "conditions": [
                  {
                    "fn": "booleanEquals",
                    "argv": [
                      {
                        "ref": "UseFIPS"
                      },
                      true
                    ]
                  }

      ],
                "error": "Invalid Configuration: FIPS and custom endpoint are not supported",
                "type": "error"
              },
              {
                "conditions": [],
                "rules": [
                  {
                    "conditions": [
                      {
                        "fn": "booleanEquals",
                        "argv": [
```

```
                                {
                                    "ref": "UseDualStack"
                                },
                                true
                            ]

}
                        ],
                        "error": "Invalid Configuration: Dualstack and custom endpoint are not supported",
                        "type": "error"
                    },
                    {
                        "conditions": [],
                        "endpoint": {
                            "url": {
                                "ref": "Endpoint"
                            },
                            "properties": {},
                            "headers": {}
                        },
                        "type": "endpoint"
                    }
                ],
                "type": "tree"

            }
            ],
            "type": "tree"
        },
        {
            "conditions": [],
            "rules": [
                {
                    "conditions": [
                        {
                            "fn": "isSet",
                            "argv": [
                                {
                                    "ref": "Region"
                                }
                            ]
                        }
                    ],
                    "rules": [
                        {
                            "conditions": [
                                {
```

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                "fn": "aws.partition",
                        "argv": [
                          {
                            "ref": "Region"
                          }
                        ],
                        "assign": "PartitionResult"
                      }
                    ],
                    "rules": [
                      {
                        "conditions": [
                          {
                            "fn": "booleanEquals",
                            "argv": [
                              {

                          "ref": "UseFIPS"
                              },
                              true
                            ]
                          },
                          {
                            "fn": "booleanEquals",
                            "argv": [
                              {
                                "ref": "UseDualStack"
                              },
                              true
                            ]
                          }

],
                        "rules": [
                          {
                            "conditions": [
                              {
                                "fn": "booleanEquals",
                                "argv": [
                                  true,
                                  {
                                    "fn": "getAttr",
                                    "argv": [
                                      {
                                        "ref": "PartitionResult"

                    },
                                          "supportsFIPS"
```

```
                                        ]
                                    }
                                ]
                            },
                            {
                                "fn": "booleanEquals",
                                "argv": [
                                    true,
                                    {
                                        "fn": "getAttr",
                                        "argv": [

                                        {
                                                "ref": "PartitionResult"
                                            },
                                            "supportsDualStack"
                                        ]
                                    }
                                ]
                            }
                        ],
                        "rules": [
                            {
                                "conditions": [],

    "rules": [
                                    {
                                        "conditions": [],
                                        "endpoint": {
                                            "url": "https://license-manager-linux-subscriptions-
fips.{Region}.{PartitionResult#dualStackDnsSuffix}",
                                            "properties": {},
                                            "headers": {}
                                        },
                                        "type": "endpoint"
                                    }
                                ],

                        "type": "tree"
                                }
                            ],
                            "type": "tree"
                        },
                        {
                            "conditions": [],
                            "error": "FIPS and DualStack are enabled, but this partition does not support
one or both",
                            "type": "error"
```

```
                }
            ],
            "type": "tree"
        },
        {

    "conditions": [
                {
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                    "argv": [
                        {
                            "ref": "UseFIPS"
                        },
                        true
                    ]
                }
            ],
            "rules": [
                {
                    "conditions": [
                        {

                "fn": "booleanEquals",
                            "argv": [
                                {
                                    "fn": "getAttr",
                                    "argv": [
                                        {
                                            "ref": "PartitionResult"
                                        },
                                        "supportsFIPS"
                                    ]
                                },
                                true

                            ]
                        }
                    ],
                    "rules": [
                        {
                            "conditions": [],
                            "rules": [
                                {
                                    "conditions": [],
                                    "endpoint": {
                                        "url": "https://license-manager-linux-subscriptions-
fips.{Region}.{PartitionResult#dnsSuffix}",
```

```
    "properties": {},
                                                "headers": {}
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                                    ],
                                    "type": "tree"
                                }
                            ],
                            "type": "tree"
                        },
                        {
                            "conditions": [],
                            "error": "FIPS is enabled
but this partition does not support FIPS",
                            "type": "error"
                        }
                    ],
                    "type": "tree"
                },
                {
                    "conditions": [
                        {
                            "fn": "booleanEquals",
                            "argv": [
                                {
                                    "ref": "UseDualStack"
                                },
                                true


                ]
                        }
                    ],
                    "rules": [
                        {
                            "conditions": [
                                {
                                    "fn": "booleanEquals",
                                    "argv": [
                                        true,
                                        {
                                            "fn": "getAttr",
                                            "argv": [
                                                {

                                                "ref": "PartitionResult"
                                                },
                                                "supportsDualStack"
```

```
                                        ]
                                    }
                                ]
                            }
                        ],
                        "rules": [
                            {
                                "conditions": [],
                                "rules": [

        {
                                        "conditions": [],
                                        "endpoint": {
                                            "url": "https://license-manager-linux-
subscriptions.{Region}.{PartitionResult#dualStackDnsSuffix}",
                                            "properties": {},
                                            "headers": {}
                                        },
                                        "type": "endpoint"
                                    }
                                ],
                                "type": "tree"

                    }
                                ],
                                "type": "tree"
                            },
                            {
                                "conditions": [],
                                "error": "DualStack is enabled but this partition does not support DualStack",
                                "type": "error"
                            }
                        ],
                        "type": "tree"
                    },
                    {
                        "conditions": [],
                        "rules": [
                            {
                                "conditions": [],
                                "endpoint": {
                                    "url": "https://license-manager-linux-
subscriptions.{Region}.{PartitionResult#dnsSuffix}",
                                    "properties": {},
                                    "headers": {}
                                },
                                "type": "endpoint"
                            }
```

```
                        ],
                        "type": "tree"
                      }
                    ],
                    "type": "tree"
                  }
                ],
                "type": "tree"
              },
              {
                "conditions": [],
                "error": "Invalid Configuration: Missing Region",
                "type": "error"
              }
            ],
            "type": "tree"
          }
        ]
      },
      "smithy.rules#endpointTests": {
        "testCases": [
          {
            "documentation": "For region us-east-1 with FIPS enabled and DualStack enabled",
            "expect": {
              "endpoint": {
                "url": "https://license-manager-linux-subscriptions-fips.us-east-1.api.aws"

        }
            },
            "params": {
              "Region": "us-east-1",
              "UseFIPS": true,
              "UseDualStack": true
            }
          },
          {
            "documentation": "For region us-east-1 with FIPS enabled and DualStack disabled",
            "expect": {
              "endpoint": {
                "url": "https://license-manager-linux-subscriptions-fips.us-east-1.amazonaws.com"
              }
            },
            "params": {
              "Region": "us-east-1",
              "UseFIPS": true,
              "UseDualStack": false
            }
          },
```

```
                {

            "documentation": "For region us-east-1 with FIPS disabled and DualStack enabled",
                "expect": {
                  "endpoint": {
                    "url": "https://license-manager-linux-subscriptions.us-east-1.api.aws"
                  }
                },
                "params": {
                  "Region": "us-east-1",
                  "UseFIPS": false,
                  "UseDualStack": true
                }
              },
              {
                "documentation": "For region us-east-1 with FIPS disabled and DualStack disabled",
                "expect": {
                  "endpoint": {
                    "url": "https://license-manager-linux-subscriptions.us-east-1.amazonaws.com"
                  }

        },
                "params": {
                  "Region": "us-east-1",
                  "UseFIPS": false,
                  "UseDualStack": false
                }
              },
              {
                "documentation": "For region cn-north-1 with FIPS enabled and DualStack enabled",
                "expect": {
                  "endpoint": {
                    "url": "https://license-manager-linux-subscriptions-fips.cn-north-
1.api.amazonwebservices.com.cn"
                  }
                },
                "params": {
                  "Region": "cn-north-1",
                  "UseFIPS": true,
                  "UseDualStack": true
                }
              },
              {

          "documentation": "For region cn-north-1 with FIPS enabled and DualStack disabled",
                "expect": {
                  "endpoint": {
                    "url": "https://license-manager-linux-subscriptions-fips.cn-north-1.amazonaws.com.cn"
```

```
            }
          },
          "params": {
            "Region": "cn-north-1",
            "UseFIPS": true,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region cn-north-1 with FIPS disabled and DualStack enabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-linux-subscriptions.cn-north-1.api.amazonwebservices.com.cn"
            }
           },
          "params": {
            "Region": "cn-north-1",
            "UseFIPS": false,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region cn-north-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-linux-subscriptions.cn-north-1.amazonaws.com.cn"
            }
          },
          "params": {
            "Region": "cn-north-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {

"documentation": "For region us-gov-east-1 with FIPS enabled and DualStack enabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-linux-subscriptions-fips.us-gov-east-1.api.aws"
            }
          },
          "params": {
            "Region": "us-gov-east-1",
            "UseFIPS": true,
            "UseDualStack": true
          }
        },
```

```
                {
                  "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack disabled",
                  "expect": {
                    "endpoint": {
                      "url": "https://license-manager-linux-subscriptions-fips.us-gov-east-1.amazonaws.com"
                    }

                 },
                  "params": {
                    "Region": "us-gov-east-1",
                    "UseFIPS": true,
                    "UseDualStack": false
                  }
                },
                {
                  "documentation": "For region us-gov-east-1 with FIPS disabled and DualStack enabled",
                  "expect": {
                    "endpoint": {
                      "url": "https://license-manager-linux-subscriptions.us-gov-east-1.api.aws"
                    }
                  },
                  "params": {
                    "Region": "us-gov-east-1",
                    "UseFIPS": false,
                    "UseDualStack": true
                  }
                },
                {

            "documentation": "For region us-gov-east-1 with FIPS disabled and DualStack disabled",
                  "expect": {
                    "endpoint": {
                      "url": "https://license-manager-linux-subscriptions.us-gov-east-1.amazonaws.com"
                    }
                  },
                  "params": {
                    "Region": "us-gov-east-1",
                    "UseFIPS": false,
                    "UseDualStack": false
                  }
                },
                {
                  "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack enabled",
                  "expect": {
                    "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
                  },
                  "params": {
```

```
            "Region": "us-iso-east-1",
                "UseFIPS": true,
                "UseDualStack": true
            }
          },
          {
            "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack disabled",
            "expect": {
              "endpoint": {
                "url": "https://license-manager-linux-subscriptions-fips.us-iso-east-1.c2s.ic.gov"
              }
            },
            "params": {
              "Region": "us-iso-east-1",
              "UseFIPS": true,
              "UseDualStack": false
            }
          },
          {
            "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack
enabled",
            "expect": {
              "error": "DualStack is enabled but this partition does not support DualStack"
            },
            "params": {
              "Region": "us-iso-east-1",
              "UseFIPS": false,
              "UseDualStack": true
            }
          },
          {
            "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack disabled",
            "expect": {
              "endpoint": {
                "url": "https://license-manager-linux-subscriptions.us-iso-east-1.c2s.ic.gov"
              }
            },
            "params": {
              "Region": "us-iso-east-1",
              "UseFIPS":
false,
              "UseDualStack": false
            }
          },
          {
            "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack enabled",
            "expect": {
              "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
```

```
    },
    "params": {
      "Region": "us-isob-east-1",
      "UseFIPS": true,
      "UseDualStack": true
    }
  },
  {
    "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack disabled",
    "expect": {
      "endpoint": {
        "url": "https://license-manager-linux-subscriptions-fips.us-isob-east-1.sc2s.sgov.gov"
       }
    },
    "params": {
      "Region": "us-isob-east-1",
      "UseFIPS": true,
      "UseDualStack": false
    }
  },
  {
    "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack enabled",
    "expect": {
      "error": "DualStack is enabled but this partition does not support DualStack"
    },
    "params": {
      "Region": "us-isob-east-1",
      "UseFIPS": false,
      "UseDualStack": true
    }
  },
  {

   "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack disabled",
    "expect": {
      "endpoint": {
        "url": "https://license-manager-linux-subscriptions.us-isob-east-1.sc2s.sgov.gov"
      }
    },
    "params": {
      "Region": "us-isob-east-1",
      "UseFIPS": false,
      "UseDualStack": false
    }
  },
  {
    "documentation": "For custom endpoint with region set and fips disabled and dualstack disabled",
    "expect": {
```

```
                "endpoint": {
                  "url": "https://example.com"
                }

        },
                "params": {
                  "Region": "us-east-1",
                  "UseFIPS": false,
                  "UseDualStack": false,
                  "Endpoint": "https://example.com"
                }
              },
              {
                "documentation": "For custom endpoint with region not set and fips disabled and dualstack
disabled",
                "expect": {
                  "endpoint": {
                    "url": "https://example.com"
                  }
                },
                "params": {
                  "UseFIPS": false,
                  "UseDualStack": false,
                  "Endpoint": "https://example.com"
                }
              },
              {

                "documentation": "For custom endpoint with fips enabled and dualstack disabled",
                "expect": {
                  "error": "Invalid Configuration: FIPS and custom endpoint are not supported"
                },
                "params": {
                  "Region": "us-east-1",
                  "UseFIPS": true,
                  "UseDualStack": false,
                  "Endpoint": "https://example.com"
                }
              },
              {
                "documentation": "For custom endpoint with fips disabled and dualstack enabled",
                "expect": {
                  "error": "Invalid Configuration: Dualstack and custom endpoint are not supported"
                },
                "params": {

  "Region": "us-east-1",
                  "UseFIPS": false,
```

```
                "UseDualStack": true,
                "Endpoint": "https://example.com"
              }
            },
            {
              "documentation": "Missing region",
              "expect": {
                "error": "Invalid Configuration: Missing Region"
              }
            }
          ],
          "version": "1.0"
        }
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscovery": {
      "type": "string",
      "traits": {
        "smithy.api#enum": [
          {
            "name": "Enabled",
            "value": "Enabled",
            "documentation": "Enabled LinuxSubscriptionsDiscovery"

    },
          {
            "name": "Disabled",
            "value": "Disabled",
            "documentation": "Disabled LinuxSubscriptionsDiscovery"
          }
        ]
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscoverySettings": {
      "type": "structure",
      "members": {
        "SourceRegions": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringList",
          "traits": {
            "smithy.api#documentation": "<p>The Regions in which to discover data for Linux
subscriptions.</p>",
            "smithy.api#required": {}
          }
        },
        "OrganizationIntegration": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#OrganizationIntegration",
          "traits": {
            "smithy.api#documentation":
```

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"<p>Details if you have enabled resource discovery across your accounts in Organizations.</p>",
                    "smithy.api#required": {}
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>Lists the settings defined for discovering Linux subscriptions.</p>"
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstances": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstancesRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstancesResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
            },

  {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
            },
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists the running Amazon EC2 instances that were discovered with
commercial Linux\n      subscriptions.</p>",
            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/subscription/ListLinuxSubscriptionInstances"
            },
            "smithy.api#idempotent": {},
            "smithy.api#paginated": {
                "inputToken": "NextToken",
                "outputToken": "NextToken",
                "pageSize": "MaxResults",
                "items": "Instances"
            }
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstancesRequest":
```

```
{
        "type": "structure",
        "members": {
            "Filters": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#FilterList",
                "traits": {
                    "smithy.api#documentation": "<p>An array of structures that you can use to filter the results by your specified criteria. \n    \tFor example, you can specify <code>Region</code> in the <code>Name</code>, with the \n    \t<code>contains</code> operator to list all subscriptions that match a partial string in the \n \t<code>Value</code>, such as <code>us-west</code>.</p>\n          <p>For each filter, you can specify one of the following values for the <code>Name</code> key \n    \tto streamline results:</p>\n          <ul>\n            <li>\n              <p>\n                <code>AccountID</code>\n              </p>\n            </li>\n            <li>\n              <p>\n                <code>AmiID</code>\n              </p>\n            </li>\n            <li>\n              <p>\n <code>DualSubscription</code>\n              </p>\n            </li>\n            <li>\n              <p>\n <code>InstanceID</code>\n              </p>\n            </li>\n            <li>\n              <p>\n <code>InstanceType</code>\n              </p>\n            </li>\n            <li>\n              <p>\n <code>ProductCode</code>\n              </p>\n            </li>\n            <li>\n              <p>\n <code>Region</code>\n              </p>\n            </li>\n            <li>\n              <p>\n <code>Status</code>\n              </p>\n            </li>\n            <li>\n              <p>\n <code>UsageOperation</code>\n              </p>\n            </li>\n          </ul>\n          <p>For each filter, you can use one of the following <code>Operator</code>
 values to \n  \t\tdefine the behavior of the filter:</p>\n          <ul>\n            <li>\n              <p>\n <code>contains</code>\n              </p>\n            </li>\n            <li>\n              <p>\n <code>equals</code>\n              </p>\n            </li>\n            <li>\n              <p>\n <code>Notequal</code>\n              </p>\n            </li>\n          </ul>"
                }
            },
            "MaxResults": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#BoxInteger",
                "traits": {
                    "smithy.api#documentation": "<p>The maximum items to return in a request.</p>"
                }
            },
            "NextToken": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>A token to specify where to
 start paginating. This \n\tis the nextToken from a previously truncated response.</p>",
                    "smithy.api#length": {
                        "min": 1,
                        "max": 16384
                    }
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "NextToken length limit is half of ddb accepted limit.\nIncrease this limit if parameters in request increases."
```

```
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstancesResponse": {
        "type": "structure",
        "members": {
          "Instances": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InstanceList",
            "traits": {
              "smithy.api#documentation": "<p>An array that contains instance objects.</p>"
            }
          },
          "NextToken": {

       "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The next token used for paginated responses. When this \n\tfield isn't empty, there are additional elements that the service hasn't \n\tincluded in this request. Use this token with the next request to retrieve \n\tadditional objects.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptions": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionsRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionsResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
          },
           {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Lists the Linux subscriptions that have been discovered. If you have linked your\n      organization, the returned results will include data aggregated across your accounts in\n Organizations.</p>",
          "smithy.api#http": {
            "code": 200,
            "method": "POST",
```

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            "uri": "/subscription/ListLinuxSubscriptions"
          },
          "smithy.api#idempotent": {},
          "smithy.api#paginated": {
            "inputToken": "NextToken",
            "outputToken": "NextToken",
            "pageSize": "MaxResults",

  "items": "Subscriptions"
          }
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionsRequest": {
        "type": "structure",
        "members": {
          "Filters": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#FilterList",
            "traits": {
              "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those that match one or\n more sets of key-value pairs that you specify. For example, you can filter by the name of\n <code>Subscription</code> with an optional operator to see subscriptions that match,\n partially match, or don't match a certain subscription's name.</p>\n <p>The valid names for this filter are:</p>\n <ul>\n <li>\n <p>\n <code>Subscription</code>\n </p>\n </li>\n </ul>\n <p>The
 valid Operators for this filter are:</p>\n <ul>\n <li>\n <p>\n <code>contains</code>\n </p>\n </li>\n <li>\n <p>\n <code>equals</code>\n </p>\n </li>\n <li>\n <p>\n <code>Notequal</code>\n </p>\n </li>\n </ul>"
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#BoxInteger",
            "traits": {
              "smithy.api#documentation": "<p>The maximum items to return in a request.</p>"
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>A token to specify where to start paginating. This \n\tis the nextToken from a previously truncated response.</p>",
              "smithy.api#length": {
                "min": 1,
                "max": 16384
              }
            }
          }
        },
```

```
        "traits": {
            "smithy.api#documentation": "NextToken length limit is half of ddb accepted limit.\nIncrease this limit if parameters in request increases."
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionsResponse": {
        "type": "structure",
        "members": {
            "Subscriptions": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionList",
                "traits": {
                    "smithy.api#documentation": "<p>An array that contains subscription objects.</p>"
                }
            },
            "NextToken": {
                "target": "smithy.api#String",
                 "traits": {
                    "smithy.api#documentation": "<p>The next token used for paginated responses. When this \n\tfield isn't empty, there are additional elements that the service hasn't \n\tincluded in this request. Use this token with the next request to retrieve \n\tadditional objects.</p>"
                }
            }
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ListRegisteredSubscriptionProviders": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListRegisteredSubscriptionProvidersRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListRegisteredSubscriptionProvidersResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"

             },
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
            },
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>List Bring Your Own License (BYOL) subscription registration
```

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resources for your account.</p>",
            "smithy.api#http": {
               "code": 200,
               "method": "POST",
               "uri": "/subscription/ListRegisteredSubscriptionProviders"
            },
            "smithy.api#idempotent": {},
            "smithy.api#paginated": {
               "inputToken": "NextToken",
               "outputToken": "NextToken",
               "pageSize": "MaxResults",
               "items": "RegisteredSubscriptionProviders"
            }
         }

      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#ListRegisteredSubscriptionProvidersRequest": {
         "type": "structure",
         "members": {
            "SubscriptionProviderSources": {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderSourceList",
               "traits": {
                  "smithy.api#documentation": "<p>To filter your results, specify which subscription providers to
return \n\t\t\tin the list.</p>"
               }
            },
            "MaxResults": {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#BoxInteger",
               "traits": {
                  "smithy.api#documentation": "<p>The maximum items to return in a request.</p>",
                  "smithy.api#range": {
                     "min": 1,
                     "max": 100
                  }
               }

   },
            "NextToken": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>A token to specify where to start paginating. This \n\tis the
nextToken from a previously truncated response.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#input": {}
         }
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    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ListRegisteredSubscriptionProvidersResponse": {
      "type": "structure",
      "members": {
        "RegisteredSubscriptionProviders": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#RegisteredSubscriptionProviderList",
          "traits": {
            "smithy.api#documentation": "<p>The list of BYOL registration resources that fit the criteria
\n\t\t\tyou specified in the request.</p>"
          }
        },

        "NextToken": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The next token used for paginated responses. When this \n\tfield
isn't empty, there are additional elements that the service hasn't \n\tincluded in this request. Use this token with the
next request to retrieve \n\tadditional objects.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ListTagsForResource": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListTagsForResourceRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListTagsForResourceResponse"
      },
      "errors": [
        {

     "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
        },
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ResourceNotFoundException"
        },
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>List the metadata tags that are assigned to the \n\t\t\tspecified Amazon
Web Services resource.</p>",
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            "smithy.api#http": {
              "method": "GET",
              "uri": "/tags/{resourceArn}"
            },
            "smithy.api#readonly": {}
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#ListTagsForResourceRequest": {
          "type": "structure",
          "members": {
            "resourceArn": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn",
               "traits": {
                 "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the resource for which to
list metadata tags.</p>",
                 "smithy.api#httpLabel": {},
                 "smithy.api#required": {}
               }
            }
          },
          "traits": {
            "smithy.api#input": {}
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#ListTagsForResourceResponse": {
          "type": "structure",
          "members": {
            "tags": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Tags",
              "traits": {
                "smithy.api#documentation": "<p>The metadata tags for the requested resource.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#output": {}
           }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#Operator": {
          "type": "string",
          "traits": {
            "smithy.api#enum": [
              {
                "name": "EQUAL",
                "value": "Equal",
                "documentation": "Equal operator"
              },
              {
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                "name": "NOT_EQUAL",
                "value": "NotEqual",
                "documentation": "Not equal operator"
              },
              {
                "name": "CONTAINS",
                "value": "Contains",
                "documentation": "Contains operator"
              }
            ],
            "smithy.api#length": {
              "min": 1,
              "max": 20
            }
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#OrganizationIntegration":
{
          "type": "string",
          "traits": {
            "smithy.api#enum": [
              {
                "name": "Enabled",
                "value": "Enabled",
                "documentation": "Enabled OrganizationIntegration"
              },
              {
                "name": "Disabled",
                "value": "Disabled",
                "documentation": "Disabled OrganizationIntegration"
              }
            ]
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#ProductCodeList": {
          "type": "list",
          "member": {
            "target": "smithy.api#String"
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#RegisterSubscriptionProvider": {
          "type": "operation",
          "input": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#RegisterSubscriptionProviderRequest"
           },
          "output": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#RegisterSubscriptionProviderResponse"
          },
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        "errors": [
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Register the supported third-party subscription provider for your Bring
Your Own License (BYOL) subscription.</p>",
          "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/subscription/RegisterSubscriptionProvider"

          },
          "smithy.api#idempotent": {}
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#RegisterSubscriptionProviderRequest": {
        "type": "structure",
        "members": {
          "SubscriptionProviderSource": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderSource",
            "traits": {
              "smithy.api#documentation": "<p>The supported Linux subscription provider to register.</p>",
              "smithy.api#required": {}
            }
          },
          "SecretArn": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SecretArn",
            "traits": {
              "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the secret where you've
stored your subscription provider's access token. For \n\t\t\tRHEL subscriptions managed through the
 Red Hat Subscription Manager (RHSM), the secret contains \n\t\t\tyour Red Hat Offline token.</p>",
              "smithy.api#required": {}
            }
          },
          "Tags": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Tags",
            "traits": {
              "smithy.api#documentation": "<p>The metadata tags to assign to your registered Linux subscription
provider \n\t\t\tresource.</p>"
            }
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            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#RegisterSubscriptionProviderResponse": {
        "type": "structure",
        "members": {
            "SubscriptionProviderSource": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderSource",
                "traits": {
                    "smithy.api#documentation":
 "<p>The Linux subscription provider that you registered.</p>"
                }
            },
            "SubscriptionProviderArn": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the Linux subscription
provider resource that you registered.</p>"
                }
            },
            "SubscriptionProviderStatus": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderStatus",
                "traits": {
                    "smithy.api#documentation": "<p>Indicates the status of the registration action for the Linux
subscription provider \n\t\t\tthat you requested.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#RegisteredSubscriptionProvider":
 {
        "type": "structure",
        "members": {
            "SubscriptionProviderArn": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn",
                "traits": {
                    "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the Linux subscription
provider resource that you registered.</p>"
                }
            },
            "SubscriptionProviderSource": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderSource",
```

```
            "traits": {
                "smithy.api#documentation": "<p>A supported third-party Linux subscription provider. License Manager currently supports \n\t\t\tRed Hat subscriptions.</p>"
            }
        },
        "SecretArn": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SecretArn",
            "traits": {
                "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the Secrets Manager secret that stores your registered Linux subscription provider \n\t\t\taccess token. For RHEL account subscriptions, this is the offline token.</p>"
            }
        },
        "SubscriptionProviderStatus": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderStatus",
            "traits": {
                "smithy.api#documentation": "<p>Indicates the status of your registered Linux subscription provider access token \n\t\t\tfrom the last time License Manager retrieved subscription data. For RHEL account subscriptions, \n\t\t\tthis is the status of the offline token.</p>"
            }
        },
        "SubscriptionProviderStatusMessage": {
            "target": "smithy.api#String",
            "traits":
{
                "smithy.api#documentation": "<p>A detailed message that's associated with your BYOL subscription \n\t\t\tprovider token status.</p>"
            }
        },
        "LastSuccessfulDataRetrievalTime": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The timestamp from the last time that License Manager accessed third-party subscription data \n\t\t\tfor your account from your registered Linux subscription provider.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#documentation": "<p>A third-party provider for operating system (OS) platform software and license \n\t\t\tsubscriptions, such as Red Hat. When you register a third-party Linux subscription \n\t\t\tprovider, License Manager can get subscription data from the registered provider.</p>"
    }
},
"com.amazonaws.licensemanagerlinuxsubscriptions#RegisteredSubscriptionProviderList":
{
    "type": "list",
    "member": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#RegisteredSubscriptionProvider"
```

```
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#ResourceNotFoundException": {
        "type": "structure",
        "members": {
          "message": {
            "target": "smithy.api#String"
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Unable to find the requested Amazon Web Services resource.</p>",
          "smithy.api#error": "client"
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#SecretArn": {
        "type": "string",
        "traits": {
          "smithy.api#pattern": "^arn:[a-z0-9-\\.]{1,63}:secretsmanager:[a-z0-9-\\.]{0,63}:[a-z0-9-
\\.]{0,63}:secret:[^/]{1,1023}$"

    }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#Status": {
        "type": "string",
        "traits": {
          "smithy.api#enum": [
            {
              "name": "InProgress",
              "value": "InProgress",
              "documentation": "InProgress status"
            },
            {
              "name": "Completed",
              "value": "Completed",
              "documentation": "Completed status"
            },
            {
              "name": "Successful",
              "value": "Successful",
              "documentation": "Successful status"
            },
            {
              "name": "Failed",
              "value": "Failed",
              "documentation": "Failed status"
            }
          ]
        }
```

```
    },

    "com.amazonaws.licensemanagerlinuxsubscriptions#StringList": {
        "type": "list",
        "member": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#length": {
                    "min": 1,
                    "max": 100
                }
            }
        },
        "traits": {
            "smithy.api#length": {
                "min": 1,
                "max": 100
            },
            "smithy.api#uniqueItems": {}
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#StringMap": {
        "type": "map",
        "key": {
            "target": "smithy.api#String"
        },
        "value": {
            "target": "smithy.api#String"
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#Subscription": {
        "type": "structure",
        "members": {
            "Name":
{
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The name of the subscription.</p>"
                }
            },
            "Type": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The type of subscription. The type can be subscription-included
with Amazon EC2, Bring Your Own\n      Subscription model (BYOS), or from the Amazon Web Services
Marketplace. Certain subscriptions may use licensing from the\n      Amazon Web Services Marketplace as well as
OS licensing from Amazon EC2 or BYOS.</p>"
                }
```

```
            },
            "InstanceCount": {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#BoxLong",
               "traits": {
                  "smithy.api#documentation": "<p>The total amount of running instances using this
subscription.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#documentation": "<p>An object which details a discovered Linux subscription.</p>"
         }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionList": {
         "type": "list",
         "member": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Subscription"
         }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn": {
         "type": "string",
         "traits": {
            "smithy.api#pattern": "^arn:[a-z0-9-\\.]{1,63}:[a-z0-9-\\.]{1,63}:[a-z0-9-\\.]{1,63}:[a-z0-9-\\.]{1,63}:[a-z0-
9-\\.]{1,510}/[a-z0-9-\\.]{1,510}$"
         }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderSource": {
         "type": "string",
         "traits": {
            "smithy.api#enum": [

 {
                  "name": "RedHat",
                  "value": "RedHat",
                  "documentation": "RedHat subscription provider namespace"
               }
            ]
         }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderSourceList": {
         "type": "list",
         "member": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderSource"
         }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderStatus": {
         "type": "string",
         "traits": {
```

```
        "smithy.api#enum": [
          {
            "name": "ACTIVE",
            "value": "ACTIVE",
            "documentation": "ACTIVE status"
          },
          {
            "name": "INVALID",
            "value": "INVALID",

"documentation": "INVALID status"
          },
          {
            "name": "PENDING",
            "value": "PENDING",
            "documentation": "PENDING status"
          }
        ]
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#TagKeyList": {
      "type": "list",
      "member": {
        "target": "smithy.api#String"
      },
      "traits": {
        "smithy.api#length": {
          "min": 0,
          "max": 50
        },
        "smithy.api#sensitive": {}
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#TagResource": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#TagResourceRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#TagResourceResponse"
       },
      "errors": [
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
        },
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ResourceNotFoundException"
        },
```

```
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Add metadata tags to the specified Amazon Web Services
resource.</p>",
            "smithy.api#http": {
                "method": "PUT",
                "uri": "/tags/{resourceArn}"
            },
            "smithy.api#idempotent": {}
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#TagResourceRequest": {
        "type": "structure",
        "members":
{
            "resourceArn": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn",
                "traits": {
                    "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the Amazon Web Services
resource to which to add the specified \n\t\t\tmetadata tags.</p>",
                    "smithy.api#httpLabel": {},
                    "smithy.api#required": {}
                }
            },
            "tags": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Tags",
                "traits": {
                    "smithy.api#documentation": "<p>The metadata tags to assign to the Amazon Web Services resource.
Tags are \n\t\t\tformatted as key value pairs.</p>",
                    "smithy.api#required": {}
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }

    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#TagResourceResponse": {
        "type": "structure",
        "members": {},
        "traits": {
            "smithy.api#output": {}
        }
    },
```

```
    "com.amazonaws.licensemanagerlinuxsubscriptions#Tags": {
      "type": "map",
      "key": {
        "target": "smithy.api#String"
      },
      "value": {
        "target": "smithy.api#String"
      },
      "traits": {
        "smithy.api#length": {
          "min": 0,
          "max": 50
        },
        "smithy.api#sensitive": {}
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException": {
      "type": "structure",
      "members": {
        "message": {
          "target": "smithy.api#String"
        }
      },
      "traits": {
        "smithy.api#documentation":
"<p>The request was denied due to request throttling.</p>",
        "smithy.api#error": "client"
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#UntagResource": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UntagResourceRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UntagResourceResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
        },
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ResourceNotFoundException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Remove one or more metadata tag from the specified Amazon Web
Services resource.</p>",
```

```
            "smithy.api#http": {
              "method": "DELETE",
              "uri": "/tags/{resourceArn}"
            },
            "smithy.api#idempotent": {}
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#UntagResourceRequest": {
          "type": "structure",
          "members": {
            "resourceArn": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn",
              "traits": {
                "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the Amazon Web Services
resource to remove the metadata tags from.</p>",
                "smithy.api#httpLabel": {},
                "smithy.api#required": {}
              }
            },
            "tagKeys": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#TagKeyList",
              "traits": {

             "smithy.api#documentation": "<p>A list of metadata tag keys to remove from the requested
\n\t\t\tresource.</p>",
                "smithy.api#httpQuery": "tagKeys",
                "smithy.api#required": {}
              }
            }
          },
          "traits": {
            "smithy.api#input": {}
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#UntagResourceResponse": {
          "type": "structure",
          "members": {},
          "traits": {
            "smithy.api#output": {}
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettings": {
          "type": "operation",
          "input": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettingsRequest"
          },
          "output": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettingsResponse"
```

```
    },
      "errors": [
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
        },
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
        },
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Updates the service settings for Linux subscriptions.</p>",
        "smithy.api#http": {
          "code": 200,
          "method": "POST",
          "uri": "/subscription/UpdateServiceSettings"
        },
        "smithy.api#idempotent": {}
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettingsRequest": {
      "type": "structure",
      "members": {
        "LinuxSubscriptionsDiscovery": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscovery",
          "traits": {
            "smithy.api#documentation": "<p>Describes if the discovery of Linux subscriptions is enabled.</p>",
            "smithy.api#required": {}
          }
        },
        "LinuxSubscriptionsDiscoverySettings": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscoverySettings",
          "traits": {
            "smithy.api#documentation": "<p>The settings defined for Linux subscriptions discovery. The
settings include if Organizations\n      integration has been enabled, and which Regions data will be aggregated
from.</p>",
            "smithy.api#required": {}
          }
        },
        "AllowUpdate": {
          "target":
 "smithy.api#Boolean",
          "traits": {
            "smithy.api#documentation": "<p>Describes if updates are allowed to the service settings for Linux
subscriptions. If you\n      allow updates, you can aggregate Linux subscription data in more than one home
```

```
Region.</p>"
                }
            }
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettingsResponse": {
        "type": "structure",
        "members": {
            "LinuxSubscriptionsDiscovery": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscovery",
                "traits": {
                    "smithy.api#documentation": "<p>Lists if discovery has been enabled for Linux subscriptions.</p>"
                }
            },
            "LinuxSubscriptionsDiscoverySettings": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscoverySettings",
                 "traits": {
                    "smithy.api#documentation": "<p>The settings defined for Linux subscriptions discovery. The
settings include if Organizations\n      integration has been enabled, and which Regions data will be aggregated
from.</p>"
                }
            },
            "Status": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Status",
                "traits": {
                    "smithy.api#documentation": "<p>Indicates the status of Linux subscriptions settings being
applied.</p>"
                }
            },
            "StatusMessage": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringMap",
                "traits": {
                    "smithy.api#documentation": "<p>A message which details the Linux subscriptions service settings
current status.</p>"
                }

    },
            "HomeRegions": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringList",
                "traits": {
                    "smithy.api#documentation": "<p>The Region in which License Manager displays the aggregated
data for Linux\n      subscriptions.</p>"
                }
            }
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException": {
        "type": "structure",
```

```
        "members": {
            "message": {
                "target": "smithy.api#String"
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>The provided input is not valid. Try your request again.</p>",
            "smithy.api#error": "client"
        }
    }
  }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Deletes the specified license.
func (c *Client) DeleteLicense(ctx context.Context, params *DeleteLicenseInput, optFns ...func(*Options))
(*DeleteLicenseOutput, error) {
 if params == nil {
  params = &DeleteLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "DeleteLicense", params, optFns,
c.addOperationDeleteLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*DeleteLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type DeleteLicenseInput struct {

 // Amazon Resource Name (ARN) of the license.
 //
 // This member is required.
```

```
 LicenseArn *string

 // Current version of the license.
 //
 // This member is required.
 SourceVersion
 *string

 noSmithyDocumentSerde
}

type DeleteLicenseOutput struct {

 // Date when the license is deleted.
 DeletionDate *string

 // License status.
 Status types.LicenseDeletionStatus

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationDeleteLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpDeleteLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpDeleteLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "DeleteLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err !=
 nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
```

```
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil
 {
  return err
 }
 if err = addUserAgentRetryMode(stack, options); err != nil {
  return err
 }
 if err = addOpDeleteLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opDeleteLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
```

```
 return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
 return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
 return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
 return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
 return err
 }
 return nil
}

func newServiceMetadataMiddleware_opDeleteLicense(region string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
 Region:       region,
 ServiceID:    ServiceID,
 OperationName: "DeleteLicense",
 }
}
DeleteLicense
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
  OperationInputValidation
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
 Build stack step
  ClientRequestID
  ComputeContentLength
  UserAgent
  AddTimeOffsetMiddleware
  RecursionDetection
 Finalize stack step
  ResolveAuthScheme
  GetIdentity
  ResolveEndpointV2
  disableHTTPS
  ComputePayloadHash
  Retry
  RetryMetricsHeader
```

setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
AddTimeOffsetMiddleware
RecordResponseTiming
RequestResponseLogger
GetLicense
Initialize stack step
RegisterServiceMetadata
legacyEndpointContextSetter
SetLogger
OperationInputValidation
Serialize stack step
setOperationInput
ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
UserAgent
AddTimeOffsetMiddleware
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
AddTimeOffsetMiddleware
RecordResponseTiming
RequestResponseLogger

```
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Checks out the specified license for offline use.
func (c *Client) CheckoutBorrowLicense(ctx context.Context, params *CheckoutBorrowLicenseInput, optFns
...func(*Options)) (*CheckoutBorrowLicenseOutput, error) {
 if params == nil {
  params = &CheckoutBorrowLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "CheckoutBorrowLicense", params, optFns,
c.addOperationCheckoutBorrowLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*CheckoutBorrowLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type CheckoutBorrowLicenseInput struct {

 // Unique, case-sensitive identifier that you provide to ensure the idempotency of
 //
 the request.
 //
 // This member is required.
 ClientToken *string

 // Digital signature method. The possible value is JSON Web Signature (JWS)
 // algorithm PS384. For more information, see [RFC 7518 Digital Signature with RSASSA-PSS].
 //
 // [RFC 7518 Digital Signature with RSASSA-PSS]: https://tools.ietf.org/html/rfc7518#section-3.5
 //
 // This member is required.
 DigitalSignatureMethod types.DigitalSignatureMethod
```

```
// License entitlements. Partial checkouts are not supported.
//
// This member is required.
Entitlements []types.EntitlementData

// Amazon Resource Name (ARN) of the license. The license must use the borrow
// consumption configuration.
//
// This member is required.
LicenseArn *string

// Information about constraints.
CheckoutMetadata []types.Metadata

// Node ID.
NodeId *string

noSmithyDocumentSerde
}

type CheckoutBorrowLicenseOutput struct {

// Information about constraints.
CheckoutMetadata []types.Metadata

// Allowed license entitlements.
EntitlementsAllowed
[]types.EntitlementData

// Date and time at which the license checkout expires.
Expiration *string

// Date and time at which the license checkout is issued.
IssuedAt *string

// Amazon Resource Name (ARN) of the license.
LicenseArn *string

// License consumption token.
LicenseConsumptionToken *string

// Node ID.
NodeId *string

// Signed token.
SignedToken *string

// Metadata pertaining to the operation's result.
```

```
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationCheckoutBorrowLicenseMiddlewares(stack *middleware.Stack, options Options) (err
error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpCheckoutBorrowLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpCheckoutBorrowLicense{}, middleware.After)
 if err != nil {
  return
 err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "CheckoutBorrowLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
```

```
 return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
 return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return
err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
 return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
 return err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
 return err
 }
 if err = addUserAgentRetryMode(stack, options); err != nil {
 return err
 }
 if err = addOpCheckoutBorrowLicenseValidationMiddleware(stack); err != nil {
 return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opCheckoutBorrowLicense(options.Region),
middleware.Before); err != nil {
 return err
 }
 if err = addRecursionDetection(stack); err != nil {
 return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
 return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
 return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
 return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
 return err
 }
 return nil
}

func newServiceMetadataMiddleware_opCheckoutBorrowLicense(region
```

```
 string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName: "CheckoutBorrowLicense",
 }
}
```

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```
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Checks in the specified license. Check in a license when it is no longer in use.
```

```
func (c *Client) CheckInLicense(ctx context.Context, params *CheckInLicenseInput, optFns ...func(*Options))
(*CheckInLicenseOutput, error) {
 if params == nil {
  params = &CheckInLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "CheckInLicense", params, optFns,
c.addOperationCheckInLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*CheckInLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type CheckInLicenseInput struct {

 // License consumption token.
 //
 // This member is required.
 LicenseConsumptionToken *string

 // License beneficiary.
 Beneficiary *string

 noSmithyDocumentSerde
}

type
 CheckInLicenseOutput struct {
 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationCheckInLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpCheckInLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpCheckInLicense{}, middleware.After)
 if err != nil {
```

```
 return err
}
if err := addProtocolFinalizerMiddlewares(stack, options, "CheckInLicense"); err != nil {
 return fmt.Errorf("add protocol finalizers: %v", err)
}

if err = addlegacyEndpointContextSetter(stack, options); err != nil {
 return err
}
if err = addSetLoggerMiddleware(stack, options); err != nil {
 return err
}
if err = addClientRequestID(stack); err != nil {
 return err
}
if
err = addComputeContentLength(stack); err != nil {
 return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
 return err
}
if err = addComputePayloadSHA256(stack); err != nil {
 return err
}
if err = addRetry(stack, options); err != nil {
 return err
}
if err = addRawResponseToMetadata(stack); err != nil {
 return err
}
if err = addRecordResponseTiming(stack); err != nil {
 return err
}
if err = addClientUserAgent(stack, options); err != nil {
 return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
 return err
}
if err = addTimeOffsetBuild(stack, c); err != nil {
 return err
```

```
 }
 if err = addUserAgentRetryMode(stack, options); err != nil {
  return err
 }
 if err = addOpCheckInLicenseValidationMiddleware(stack); err != nil
 {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opCheckInLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opCheckInLicense(region string) *awsmiddleware.RegisterServiceMetadata
{
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:    ServiceID,
  OperationName: "CheckInLicense",
 }
}
```

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package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Lists the licenses for your account.
func (c *Client) ListLicenses(ctx context.Context, params *ListLicensesInput, optFns ...func(*Options))
(*ListLicensesOutput, error) {
 if params == nil {
  params = &ListLicensesInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "ListLicenses", params, optFns,
c.addOperationListLicensesMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*ListLicensesOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type ListLicensesInput struct {

 // Filters to scope the results. The following filters are supported:
 //
 //   - Beneficiary
 //
 //   - ProductSKU
 //
 //   - Fingerprint
```

```
//
//   - Status
Filters
[]types.Filter

// Amazon Resource Names (ARNs) of the licenses.
LicenseArns []string

// Maximum number of results to return in a single call.
MaxResults *int32

// Token for the next set of results.
NextToken *string

noSmithyDocumentSerde
}

type ListLicensesOutput struct {

// License details.
Licenses []types.License

// Token for the next set of results.
NextToken *string

// Metadata pertaining to the operation's result.
ResultMetadata middleware.Metadata

noSmithyDocumentSerde
}

func (c *Client) addOperationListLicensesMiddlewares(stack *middleware.Stack, options Options) (err error) {
if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
 return err
}
err = stack.Serialize.Add(&awsAwsjson11_serializeOpListLicenses{}, middleware.After)
if err != nil {
 return err
}
err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpListLicenses{}, middleware.After)
if err != nil {
 return err
}
if err := addProtocolFinalizerMiddlewares(stack,
options, "ListLicenses"); err != nil {
 return fmt.Errorf("add protocol finalizers: %v", err)
}
```

```
 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack);
 err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
  return err
 }
 if err = addUserAgentRetryMode(stack, options); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opListLicenses(options.Region), middleware.Before);
err != nil {
```

```
 return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opListLicenses(region string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:
     ServiceID,
  OperationName: "ListLicenses",
 }
}
CheckInLicense
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
  OperationInputValidation
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
 Build stack step
  ClientRequestID
  ComputeContentLength
  UserAgent
  AddTimeOffsetMiddleware
  RecursionDetection
 Finalize stack step
  ResolveAuthScheme
  GetIdentity
  ResolveEndpointV2
```

disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
AddTimeOffsetMiddleware
RecordResponseTiming
RequestResponseLogger


```
{
  "smithy": "2.0",
  "shapes": {
    "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException": {
      "type": "structure",
      "members": {
        "message": {
          "target": "smithy.api#String"
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>You don't have sufficient access to perform this action.</p>",
        "smithy.api#error": "client"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ActiveDirectoryIdentityProvider": {
      "type": "structure",
      "members": {
        "DirectoryId": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The directory ID for an Active Directory identity provider.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#documentation":
"<p>Details about an Active Directory identity provider.</p>"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#AssociateUser": {
      "type": "operation",
```

```
        "input": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AssociateUserRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AssociateUserResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
             },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Associates the user to an EC2 instance to utilize user-based
subscriptions.</p>\n        <note>\n            <p>Your estimated bill for charges on the number of users and related
costs will take 48\n        hours to appear for billing periods that haven't closed (marked as <b>Pending</b> billing
status) in Amazon Web Services Billing. For more information, see <a
href=\"https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/invoice.html\">Viewing your\n
        monthly charges</a> in the <i>Amazon Web Services Billing User Guide</i>.</p>\n        </note>",
            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/user/AssociateUser"
            },
            "smithy.api#idempotent": {}
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#AssociateUserRequest": {
        "type": "structure",
        "members": {
            "Username": {
```

```
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The user name from the identity provider for the user.</p>",
              "smithy.api#required": {}
            }
          },
          "InstanceId": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The ID of the
EC2 instance, which provides user-based subscriptions.</p>",
              "smithy.api#required": {}
            }
          },
          "IdentityProvider": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
            "traits": {
              "smithy.api#documentation": "<p>The identity provider of the user.</p>",
              "smithy.api#required": {}
            }
          },
          "Domain": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The domain name of the user.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#AssociateUserResponse": {
        "type": "structure",
        "members": {
          "InstanceUserSummary": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummary",
             "traits": {
              "smithy.api#documentation": "<p>Metadata that describes the associate user operation.</p>",
              "smithy.api#required": {}
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#BoxInteger": {
        "type": "integer"
      },
      "com.amazonaws.licensemanagerusersubscriptions#ConflictException": {
        "type": "structure",
        "members": {
          "message": {
```

```
            "target": "smithy.api#String"
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>The request couldn't be completed because it conflicted with the current state of the\n      resource.</p>",
          "smithy.api#error": "server"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProvider": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProviderRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProviderResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Deregisters the identity provider from providing user-based subscriptions.</p>",
          "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/identity-provider/DeregisterIdentityProvider"
```

```
        },
        "smithy.api#idempotent": {}
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProviderRequest": {
      "type": "structure",
      "members": {
        "IdentityProvider": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
          "traits": {
            "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
            "smithy.api#required": {}
          }
        },
        "Product": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
            "smithy.api#required": {}
          }
        }
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProviderResponse": {
      "type": "structure",
      "members": {
        "IdentityProviderSummary": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary",
          "traits": {
            "smithy.api#documentation":
"<p>Metadata that describes the results of an identity provider operation.</p>",
            "smithy.api#required": {}
          }
        }
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#DisassociateUser": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#DisassociateUserRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#DisassociateUserResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
        },
```

```
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
             },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Disassociates the user from an EC2 instance providing user-based
subscriptions.</p>",
            "smithy.api#http": {
               "code": 200,
               "method": "POST",
               "uri": "/user/DisassociateUser"
            },
            "smithy.api#idempotent": {}
         }

 },
     "com.amazonaws.licensemanagerusersubscriptions#DisassociateUserRequest": {
         "type": "structure",
         "members": {
            "Username": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The user name from the identity provider for the user.</p>",
                  "smithy.api#required": {}
               }
            },
            "InstanceId": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The ID of the EC2 instance, which provides user-based
subscriptions.</p>",
                  "smithy.api#required": {}
               }
```

```
        },
        "IdentityProvider": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
          "traits": {
            "smithy.api#documentation":
"<p>An object that specifies details for the identity provider.</p>",
            "smithy.api#required": {}
          }
        },
        "Domain": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The domain name of the user.</p>"
          }
        }
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#DisassociateUserResponse": {
      "type": "structure",
      "members": {
        "InstanceUserSummary": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummary",
          "traits": {
            "smithy.api#documentation": "<p>Metadata that describes the associate user operation.</p>",
            "smithy.api#required": {}
          }
        }
      }
    },

"com.amazonaws.licensemanagerusersubscriptions#Filter": {
      "type": "structure",
      "members": {
        "Attribute": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The name of an attribute to use as a filter.</p>"
          }
        },
        "Operation": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The type of search (For example, eq, geq, leq)</p>"
          }
        },
        "Value": {
          "target": "smithy.api#String",
          "traits": {
```

```
                "smithy.api#documentation": "<p>Value of the filter.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>A filter name and value pair that is used
 to return more specific results from a describe\n      operation. Filters can be used to match a set of resources by
specific criteria, such as tags,\n      attributes, or IDs.</p>"
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#FilterList": {
          "type": "list",
          "member": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#Filter"
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider": {
          "type": "union",
          "members": {
            "ActiveDirectoryIdentityProvider": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ActiveDirectoryIdentityProvider",
              "traits": {
                "smithy.api#documentation": "<p>An object that details an Active Directory identity provider.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#documentation":
 "<p>Details about an identity provider.</p>"
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary": {
          "type": "structure",
          "members": {
            "IdentityProvider": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
              "traits": {
                "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
                "smithy.api#required": {}
              }
            },
            "Settings": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#Settings",
              "traits": {
                "smithy.api#documentation": "<p>An object that details the registered identity providers product
related configuration\n      settings such as the subnets to provision VPC endpoints.</p>",
                "smithy.api#required":
```

```
{}
            }
          },
          "Product": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
              "smithy.api#required": {}
            }
          },
          "Status": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The status of an identity provider.</p>",
              "smithy.api#required": {}
            }
          },
          "FailureMessage": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The failure message associated with an identity provider.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation":
"<p>Describes an identity provider.</p>"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummaryList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#InstanceSummary": {
        "type": "structure",
        "members": {
          "InstanceId": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The ID of the EC2 instance, which provides user-based
subscriptions.</p>",
              "smithy.api#required": {}
            }
          },
          "Status": {
            "target": "smithy.api#String",
```

```
            "traits": {
                "smithy.api#documentation": "<p>The status
of an EC2 instance resource.</p>",
                "smithy.api#required": {}
            }
        },
        "Products": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#StringList",
            "traits": {
                "smithy.api#documentation": "<p>A list of provided user-based subscription products.</p>",
                "smithy.api#required": {}
            }
        },
        "LastStatusCheckDate": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The date of the last status check.</p>"
            }
        },
        "StatusMessage": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The status message for an EC2 instance.</p>"
            }

    }
      },
      "traits": {
        "smithy.api#documentation": "<p>Describes an EC2 instance providing user-based subscriptions.</p>"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#InstanceSummaryList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceSummary"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummary": {
      "type": "structure",
      "members": {
        "Username": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The user name from the identity provider for the user.</p>",
                "smithy.api#required": {}
            }
        },
        "InstanceId": {
```

```
            "target": "smithy.api#String",
            "traits":
{
                "smithy.api#documentation": "<p>The ID of the EC2 instance, which provides user-based
subscriptions.</p>",
                "smithy.api#required": {}
            }
        },
        "IdentityProvider": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
            "traits": {
                "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
                "smithy.api#required": {}
            }
        },
        "Status": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The status of a user associated with an EC2 instance.</p>",
                "smithy.api#required": {}
            }
        },
        "StatusMessage": {
            "target": "smithy.api#String",
             "traits": {
                "smithy.api#documentation": "<p>The status message for users of an EC2 instance.</p>"
            }
        },
        "Domain": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The domain name of the user.</p>"
            }
        },
        "AssociationDate": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The date a user was associated with an EC2 instance.</p>"
            }
        },
        "DisassociationDate": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The date a user was disassociated from an EC2 instance.</p>"
            }
        }
```

```
  },
        "traits": {
          "smithy.api#documentation": "<p>Describes users of an EC2 instance providing user-based
subscriptions.</p>"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummaryList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummary"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#InternalServerException": {
        "type": "structure",
        "members": {
          "message": {
            "target": "smithy.api#String"
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>An exception occurred with the service.</p>",
          "smithy.api#error": "server"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#LicenseManagerUserSubscriptions": {
        "type": "service",

       "version": "2018-05-10",
        "operations": [
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AssociateUser"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProvider"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#DisassociateUser"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProviders"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ListInstances"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptions"
          },
          {
```

```
            "target": "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociations"

},
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProvider"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscription"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscription"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettings"
        }
    ],
    "traits": {
        "aws.api#service": {
            "sdkId": "License Manager User Subscriptions",
            "arnNamespace": "license-manager-user-subscriptions",
            "cloudTrailEventSource": "license-manager-user-subscriptions.amazonaws.com"
        },
        "aws.auth#sigv4": {
            "name": "license-manager-user-subscriptions"
         },
        "aws.protocols#restJson1": {},
        "smithy.api#cors": {
            "additionalAllowedHeaders": [
                "*",
                "content-type",
                "x-amz-content-sha256",
                "x-amz-user-agent",
                "x-amzn-platform-id",
                "x-amzn-trace-id",
                "content-length",
                "x-api-key",
                "authorization",
                "x-amz-date",
                "x-amz-security-token",
                "Access-Control-Allow-Headers",
                "Access-Control-Allow-Methods",
                "Access-Control-Allow-Origin"
            ],
            "additionalExposedHeaders": [
                "x-amzn-errortype",
                "x-amzn-requestid",
                "x-amzn-trace-id"
```

```
 ]
        },
        "smithy.api#documentation": "<p>With License Manager, you can create user-based subscriptions to utilize licensed software with\n      a per user subscription fee on Amazon EC2 instances.</p>",
        "smithy.api#title": "AWS License Manager User Subscriptions",
        "smithy.rules#endpointRuleSet": {
          "version": "1.0",
          "parameters": {
            "Region": {
              "builtIn": "AWS::Region",
              "required": false,
              "documentation": "The AWS region used to dispatch the request.",
              "type": "String"
            },
            "UseDualStack": {
              "builtIn": "AWS::UseDualStack",
              "required": true,
              "default": false,
              "documentation": "When true, use the dual-stack
 endpoint. If the configured endpoint does not support dual-stack, dispatching the request MAY return an error.",
              "type": "Boolean"
            },
            "UseFIPS": {
              "builtIn": "AWS::UseFIPS",
              "required": true,
              "default": false,
              "documentation": "When true, send this request to the FIPS-compliant regional endpoint. If the configured endpoint does not have a FIPS compliant endpoint, dispatching the request will return an error.",
              "type": "Boolean"
            },
            "Endpoint": {
              "builtIn": "SDK::Endpoint",
              "required": false,
              "documentation": "Override the endpoint used to send this request",
              "type": "String"
            }

      },
          "rules": [
            {
              "conditions": [
                {
                  "fn": "isSet",
                  "argv": [
                    {
                      "ref": "Endpoint"
                    }
                  ]
```

```
        }
      ],
      "type": "tree",
      "rules": [
        {
          "conditions": [
            {
              "fn": "booleanEquals",
              "argv": [
                {
                  "ref": "UseFIPS"
                },

                true
              ]
            }
          ],
          "error": "Invalid Configuration: FIPS and custom endpoint are not supported",
          "type": "error"
        },
        {
          "conditions": [
            {
              "fn": "booleanEquals",
              "argv": [
                {
                  "ref": "UseDualStack"
                },
                true
              ]
            }
          ],

"error": "Invalid Configuration: Dualstack and custom endpoint are not supported",
          "type": "error"
        },
        {
          "conditions": [],
          "endpoint": {
            "url": {
              "ref": "Endpoint"
            },
            "properties": {},
            "headers": {}
          },
          "type": "endpoint"
        }
      ]
```

```
        },
        {
          "conditions": [
            {
              "fn": "isSet",
              "argv": [

    {
                    "ref": "Region"
                }
              ]
            }
          ],
          "type": "tree",
          "rules": [
            {
              "conditions": [
                {
                  "fn": "aws.partition",
                  "argv": [
                    {
                      "ref": "Region"
                    }
                  ],
                  "assign": "PartitionResult"
                }
              ],
              "type": "tree",

"rules": [
                {
                  "conditions": [
                    {
                      "fn": "booleanEquals",
                      "argv": [
                        {
                          "ref": "UseFIPS"
                        },
                        true
                      ]
                    },
                    {
                      "fn": "booleanEquals",
                      "argv": [
                        {
                          "ref": "UseDualStack"
```

```
                    },
                    true
                ]
            }
        ],
        "type": "tree",
        "rules": [
            {
                "conditions": [
                    {
                        "fn": "booleanEquals",
                        "argv": [
                            true,
                            {
                                "fn": "getAttr",

"argv": [
                                    {
                                        "ref": "PartitionResult"
                                    },
                                    "supportsFIPS"
                                ]
                            }
                        ]
                    },
                    {
                        "fn": "booleanEquals",
                        "argv": [
                            true,
                            {

        "fn": "getAttr",
                                    "argv": [
                                        {
                                            "ref": "PartitionResult"
                                        },
                                        "supportsDualStack"
                                    ]
                                }
                            ]
                        }
                    ],
                    "type": "tree",
                    "rules": [
                        {

    "conditions": [],
                                "endpoint": {
```

```
                                    "url": "https://license-manager-user-subscriptions-
fips.{Region}.{PartitionResult#dualStackDnsSuffix}",
                                    "properties": {},
                                    "headers": {}
                                },
                                "type": "endpoint"
                            }
                        ]
                    },
                    {
                        "conditions": [],
                        "error": "FIPS and DualStack are enabled, but this partition does not support one or
both",
                         "type": "error"
                    }
                ]
            },
            {
                "conditions": [
                    {
                        "fn": "booleanEquals",
                        "argv": [
                            {
                                "ref": "UseFIPS"
                            },
                            true
                        ]
                    }
                ],
                "type": "tree",

        "rules": [
                    {
                        "conditions": [
                            {
                                "fn": "booleanEquals",
                                "argv": [
                                    true,
                                    {
                                        "fn": "getAttr",
                                        "argv": [
                                            {
                                                "ref": "PartitionResult"
                                            },
                                            "supportsFIPS"

                                    ]
                                    }
```

```
                                    ]
                                }
                            ],
                            "type": "tree",
                            "rules": [
                                {
                                    "conditions": [],
                                    "endpoint": {
                                        "url": "https://license-manager-user-subscriptions-
fips.{Region}.{PartitionResult#dnsSuffix}",
                                        "properties": {},
                                        "headers": {}

                },
                                    "type": "endpoint"
                                }
                            ]
                        },
                        {
                            "conditions": [],
                            "error": "FIPS is enabled but this partition does not support FIPS",
                            "type": "error"
                        }
                    ]
                },
                {
                    "conditions": [
                        {
                            "fn": "booleanEquals",
                            "argv": [
                                {
                                    "ref": "UseDualStack"
                                },
                                true
                            ]
                        }
                    ],
                    "type": "tree",
                    "rules": [
                        {
                            "conditions": [
                                {
                                    "fn": "booleanEquals",
                                    "argv": [
                                        true,
                                        {
```

```
                                    "fn": "getAttr",
                                        "argv": [
                                            {
                                                "ref": "PartitionResult"
                                            },
                                            "supportsDualStack"
                                        ]
                                    }
                                ]
                            }
                        ],
                        "type": "tree",
                        "rules": [
                            {

                                "conditions": [],
                                "endpoint": {
                                    "url": "https://license-manager-user-
subscriptions.{Region}.{PartitionResult#dualStackDnsSuffix}",
                                    "properties": {},
                                    "headers": {}
                                },
                                "type": "endpoint"
                            }
                        ]
                    },
                    {
                        "conditions": [],
                        "error": "DualStack is enabled but this partition does
 not support DualStack",
                        "type": "error"
                    }
                ]
            },
            {
                "conditions": [],
                "endpoint": {
                    "url": "https://license-manager-user-
subscriptions.{Region}.{PartitionResult#dnsSuffix}",
                    "properties": {},
                    "headers": {}
                },
                "type": "endpoint"
            }
        ]
    }
]
},
```

```
                {
                  "conditions":
[],
                  "error": "Invalid Configuration: Missing Region",
                  "type": "error"
                }
              ]
            },
            "smithy.rules#endpointTests": {
              "testCases": [
                {
                  "documentation": "For region us-east-1 with FIPS enabled and DualStack enabled",
                  "expect": {
                    "endpoint": {
                      "url": "https://license-manager-user-subscriptions-fips.us-east-1.api.aws"
                    }
                  },
                  "params": {
                    "Region": "us-east-1",
                    "UseFIPS": true,
                    "UseDualStack": true
                  }
                },
                {
                  "documentation":
"For region us-east-1 with FIPS enabled and DualStack disabled",
                  "expect": {
                    "endpoint": {
                      "url": "https://license-manager-user-subscriptions-fips.us-east-1.amazonaws.com"
                    }
                  },
                  "params": {
                    "Region": "us-east-1",
                    "UseFIPS": true,
                    "UseDualStack": false
                  }
                },
                {
                  "documentation": "For region us-east-1 with FIPS disabled and DualStack enabled",
                  "expect": {
                    "endpoint": {
                      "url": "https://license-manager-user-subscriptions.us-east-1.api.aws"
                    }
                  },

                "params": {
                      "Region": "us-east-1",
                      "UseFIPS": false,
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```
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region us-east-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-user-subscriptions.us-east-1.amazonaws.com"
            }
          },
          "params": {
            "Region": "us-east-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region cn-north-1 with
 FIPS enabled and DualStack enabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-user-subscriptions-fips.cn-north-
1.api.amazonwebservices.com.cn"
            }
          },
          "params": {
            "Region": "cn-north-1",
            "UseFIPS": true,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region cn-north-1 with FIPS enabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-user-subscriptions-fips.cn-north-1.amazonaws.com.cn"
            }
          },

      "params": {
            "Region": "cn-north-1",
            "UseFIPS": true,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region cn-north-1 with FIPS disabled and DualStack enabled",
          "expect": {
```

```
                "endpoint": {
                    "url": "https://license-manager-user-subscriptions.cn-north-1.api.amazonwebservices.com.cn"
                }
            },
            "params": {
                "Region": "cn-north-1",
                "UseFIPS": false,
                "UseDualStack": true
            }
        },
        {
            "documentation": "For region cn-north-1
with FIPS disabled and DualStack disabled",
            "expect": {
                "endpoint": {
                    "url": "https://license-manager-user-subscriptions.cn-north-1.amazonaws.com.cn"
                }
            },
            "params": {
                "Region": "cn-north-1",
                "UseFIPS": false,
                "UseDualStack": false
            }
        },
        {
            "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack enabled",
            "expect": {
                "endpoint": {
                    "url": "https://license-manager-user-subscriptions-fips.us-gov-east-1.api.aws"
                }
            },

    "params": {
                "Region": "us-gov-east-1",
                "UseFIPS": true,
                "UseDualStack": true
            }
        },
        {
            "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack disabled",
            "expect": {
                "endpoint": {
                    "url": "https://license-manager-user-subscriptions-fips.us-gov-east-1.amazonaws.com"
                }
            },
            "params": {
                "Region": "us-gov-east-1",
                "UseFIPS": true,
```

```
                "UseDualStack": false
              }
            },
            {
              "documentation": "For region us-gov-east-1
with FIPS disabled and DualStack enabled",
              "expect": {
                "endpoint": {
                  "url": "https://license-manager-user-subscriptions.us-gov-east-1.api.aws"
                }
              },
              "params": {
                "Region": "us-gov-east-1",
                "UseFIPS": false,
                "UseDualStack": true
              }
            },
            {
              "documentation": "For region us-gov-east-1 with FIPS disabled and DualStack disabled",
              "expect": {
                "endpoint": {
                  "url": "https://license-manager-user-subscriptions.us-gov-east-1.amazonaws.com"
                }
              },

    "params": {
                "Region": "us-gov-east-1",
                "UseFIPS": false,
                "UseDualStack": false
              }
            },
            {
              "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack enabled",
              "expect": {
                "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
              },
              "params": {
                "Region": "us-iso-east-1",
                "UseFIPS": true,
                "UseDualStack": true
              }
            },
            {
              "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack disabled",
              "expect":
{
                "endpoint": {
                  "url": "https://license-manager-user-subscriptions-fips.us-iso-east-1.c2s.ic.gov"
```

```
            }
          },
          "params": {
            "Region": "us-iso-east-1",
            "UseFIPS": true,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack enabled",
          "expect": {
            "error": "DualStack is enabled but this partition does not support DualStack"
          },
          "params": {
            "Region": "us-iso-east-1",
            "UseFIPS": false,
            "UseDualStack":
true
          }
        },
        {
          "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-user-subscriptions.us-iso-east-1.c2s.ic.gov"
            }
          },
          "params": {
            "Region": "us-iso-east-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack enabled",
          "expect": {
            "error": "FIPS and DualStack are enabled, but
this partition does not support one or both"
          },
          "params": {
            "Region": "us-isob-east-1",
            "UseFIPS": true,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack disabled",
          "expect": {
```

```
            "endpoint": {
              "url": "https://license-manager-user-subscriptions-fips.us-isob-east-1.sc2s.sgov.gov"
            }
          },
          "params": {
            "Region": "us-isob-east-1",
            "UseFIPS": true,
            "UseDualStack": false
          }

    },
        {
          "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack enabled",
          "expect": {
            "error": "DualStack is enabled but this partition does not support DualStack"
          },
          "params": {
            "Region": "us-isob-east-1",
            "UseFIPS": false,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-user-subscriptions.us-isob-east-1.sc2s.sgov.gov"
            }
          },
           "params": {
            "Region": "us-isob-east-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For custom endpoint with region set and fips disabled and dualstack disabled",
          "expect": {
            "endpoint": {
              "url": "https://example.com"
            }
          },
          "params": {
            "Region": "us-east-1",
            "UseFIPS": false,
            "UseDualStack": false,
            "Endpoint": "https://example.com"
          }
```

```
        },
        {

"documentation": "For custom endpoint with region not set and fips disabled and dualstack disabled",
          "expect": {
            "endpoint": {
              "url": "https://example.com"
            }
          },
          "params": {
            "UseFIPS": false,
            "UseDualStack": false,
            "Endpoint": "https://example.com"
          }
        },
        {
          "documentation": "For custom endpoint with fips enabled and dualstack disabled",
          "expect": {
            "error": "Invalid Configuration: FIPS and custom endpoint are not supported"
          },
          "params": {
            "Region": "us-east-1",
             "UseFIPS": true,
            "UseDualStack": false,
            "Endpoint": "https://example.com"
          }
        },
        {
          "documentation": "For custom endpoint with fips disabled and dualstack enabled",
          "expect": {
            "error": "Invalid Configuration: Dualstack and custom endpoint are not supported"
          },
          "params": {
            "Region": "us-east-1",
            "UseFIPS": false,
            "UseDualStack": true,
            "Endpoint": "https://example.com"
          }
        },
        {
          "documentation": "Missing region",
          "expect": {
             "error": "Invalid Configuration: Missing Region"
          }
        }
      ],
      "version": "1.0"
    }
```

```
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProviders": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProvidersRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProvidersResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
           },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Lists the identity providers for user-based subscriptions.</p>",
          "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/identity-provider/ListIdentityProviders"
          },
          "smithy.api#paginated":
{
            "inputToken": "NextToken",
            "outputToken": "NextToken",
            "pageSize": "MaxResults",
            "items": "IdentityProviderSummaries"
          }
        }
```

```
    },
    "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProvidersRequest": {
      "type": "structure",
      "members": {
        "MaxResults": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#BoxInteger",
          "traits": {
            "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
          }
        },
        "NextToken": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>Token for the next set of results.</p>"
          }
        }
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProvidersResponse":
{
      "type": "structure",
      "members": {
        "IdentityProviderSummaries": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummaryList",
          "traits": {
            "smithy.api#documentation": "<p>Metadata that describes the list identity providers operation.</p>",
            "smithy.api#required": {}
          }
        },
        "NextToken": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>Token for the next set of results.</p>"
          }
        }
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ListInstances": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#ListInstancesRequest"
       },
      "output": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#ListInstancesResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
```

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        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Lists the EC2 instances providing user-based subscriptions.</p>",
        "smithy.api#http": {
          "code": 200,
          "method": "POST",
          "uri": "/instance/ListInstances"
        },
        "smithy.api#paginated": {
          "inputToken": "NextToken",
          "outputToken": "NextToken",
          "pageSize": "MaxResults",
          "items": "InstanceSummaries"
        }
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ListInstancesRequest": {
      "type": "structure",
      "members": {
        "MaxResults": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#BoxInteger",
          "traits": {
            "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
          }
        },
        "NextToken": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>Token for the next set of results.</p>"
```

```
            }
          },
          "Filters": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#FilterList",
            "traits": {
              "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those
that match one or\n      more sets of key-value pairs that you specify.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListInstancesResponse": {
        "type":
 "structure",
        "members": {
          "InstanceSummaries": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceSummaryList",
            "traits": {
              "smithy.api#documentation": "<p>Metadata that describes the list instances operation.</p>"
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptions": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptionsRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptionsResponse"
         },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
          },
          {
```

```
                "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists the user-based subscription products available from an identity
provider.</p>",
            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/user/ListProductSubscriptions"
            },
            "smithy.api#paginated": {
                "inputToken": "NextToken",
                "outputToken": "NextToken",
                "pageSize": "MaxResults",
                "items": "ProductUserSummaries"
            }
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptionsRequest": {
        "type": "structure",
        "members": {
            "Product": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The name
 of the user-based subscription product.</p>",
                    "smithy.api#required": {}
                }
            },
            "IdentityProvider": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
                "traits": {
                    "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
                    "smithy.api#required": {}
                }
            },
            "MaxResults": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#BoxInteger",
```

```
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          },
          "Filters": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#FilterList",
            "traits": {

  "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those that match one or\n      more sets of key-value pairs that you specify.</p>"
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptionsResponse": {
        "type": "structure",
        "members": {
          "ProductUserSummaries": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummaryList",
            "traits": {
              "smithy.api#documentation": "<p>Metadata that describes the list product subscriptions operation.</p>"
            }
          },

       "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociations": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociationsRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociationsResponse"
        },
        "errors": [
```

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            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
            },
            {
                "target":
"com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists user associations for an identity provider.</p>",
            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/user/ListUserAssociations"
            },
            "smithy.api#paginated":
{
                "inputToken": "NextToken",
                "outputToken": "NextToken",
                "pageSize": "MaxResults",
                "items": "InstanceUserSummaries"
            }
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociationsRequest": {
        "type": "structure",
        "members": {
            "InstanceId": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The ID of the EC2 instance, which provides user-based
subscriptions.</p>",
                    "smithy.api#required": {}
```

```
            }
          },
          "IdentityProvider": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
            "traits": {
              "smithy.api#documentation": "<p>An object that specifies details for the identity
provider.</p>",
              "smithy.api#required": {}
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#BoxInteger",
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          },
          "Filters": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#FilterList",
            "traits": {
              "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those
that match one or\n      more sets of key-value pairs that you specify.</p>"
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for
the next set of results.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociationsResponse": {
        "type": "structure",
        "members": {
          "InstanceUserSummaries": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummaryList",
            "traits": {
              "smithy.api#documentation": "<p>Metadata that describes the list user association operation.</p>"
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        }
```

```
 },
 "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummary": {
    "type": "structure",
    "members": {

    "Username": {
          "target": "smithy.api#String",
          "traits": {
             "smithy.api#documentation": "<p>The user name from the identity provider of the user.</p>",
             "smithy.api#required": {}
          }
       },
       "Product": {
          "target": "smithy.api#String",
          "traits": {
             "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
             "smithy.api#required": {}
          }
       },
       "IdentityProvider": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
          "traits": {
             "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
             "smithy.api#required": {}
          }

},
       "Status": {
          "target": "smithy.api#String",
          "traits": {
             "smithy.api#documentation": "<p>The status of a product for a user.</p>",
             "smithy.api#required": {}
          }
       },
       "StatusMessage": {
          "target": "smithy.api#String",
          "traits": {
             "smithy.api#documentation": "<p>The status message for a product for a user.</p>"
          }
       },
       "Domain": {
          "target": "smithy.api#String",
          "traits": {
             "smithy.api#documentation": "<p>The domain name of the user.</p>"
          }
       },
       "SubscriptionStartDate": {
          "target": "smithy.api#String",
```

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            "traits": {
                "smithy.api#documentation": "<p>The
start date of a subscription.</p>"
            }
        },
        "SubscriptionEndDate": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The end date of a subscription.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#documentation": "<p>The summary of the user-based subscription products for a user.</p>"
    }
},
"com.amazonaws.licensemanagerusersubscriptions#ProductUserSummaryList": {
    "type": "list",
    "member": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummary"
    }
},
"com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProvider": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProviderRequest"
     },
    "output": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProviderResponse"
    },
    "errors": [
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
```

```
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Registers an identity provider for user-based subscriptions.</p>",
            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/identity-provider/RegisterIdentityProvider"
            },
            "smithy.api#idempotent": {}
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProviderRequest": {
        "type": "structure",
        "members": {
            "IdentityProvider": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
                "traits": {
                    "smithy.api#documentation": "<p>An object that specifies details for the identity
provider.</p>",
                    "smithy.api#required": {}
                }
            },
            "Product": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
                    "smithy.api#required": {}
                }
            },
            "Settings": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#Settings",
                "traits": {
                    "smithy.api#documentation": "<p>The registered identity providers product related configuration
settings such as the\n      subnets to provision VPC endpoints.</p>"
                }
            }
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProviderResponse": {
        "type": "structure",
        "members": {
            "IdentityProviderSummary":
{
                "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary",
```

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            "traits": {
                "smithy.api#documentation": "<p>Metadata that describes the results of an identity provider operation.</p>",
                "smithy.api#required": {}
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException": {
        "type": "structure",
        "members": {
          "message": {
            "target": "smithy.api#String"
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>The resource couldn't be found.</p>",
          "smithy.api#error": "client",
          "smithy.api#httpError": 404
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#SecurityGroup": {
        "type": "string",

    "traits": {
          "smithy.api#length": {
            "min": 5,
            "max": 200
          },
          "smithy.api#pattern": "^sg-(([0-9a-z]{8})|([0-9a-z]{17}))$"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException": {
        "type": "structure",
        "members": {
          "message": {
            "target": "smithy.api#String"
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>The request failed because a service quota is exceeded.</p>",
          "smithy.api#error": "client"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#Settings": {
        "type": "structure",
        "members": {
          "Subnets": {
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            "target": "com.amazonaws.licensemanagerusersubscriptions#Subnets",
            "traits": {
              "smithy.api#documentation":
"<p>The subnets defined for the registered identity provider.</p>",
              "smithy.api#length": {
                "min": 1
              },
              "smithy.api#required": {}
            }
          },
          "SecurityGroupId": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#SecurityGroup",
            "traits": {
              "smithy.api#documentation": "<p>A security group ID that allows inbound TCP port 1688
communication between resources in\n      your VPC and the VPC endpoint for activation servers.</p>",
              "smithy.api#required": {}
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>The registered identity providers product related configuration settings
such as the\n      subnets to provision VPC endpoints, and the security group ID that
 is associated with the VPC\n      endpoints. The security group should permit inbound TCP port 1688
communication from resources\n      in the VPC.</p>"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscription": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscriptionRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscriptionResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
           },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
          },
          {
```

```
            "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Starts a product subscription for a user with the specified identity provider.</p>\n        <note>\n          <p>Your estimated bill for charges on the number of users and related costs will take 48\n        hours to appear for billing periods that haven't closed (marked as <b>Pending</b> billing status) in Amazon Web Services Billing.
 For more information, see <a href=\"https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/invoice.html\">Viewing your\n          monthly charges</a> in the <i>Amazon Web Services Billing User Guide</i>.</p>\n        </note>",
          "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/user/StartProductSubscription"
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscriptionRequest": {
        "type": "structure",
        "members": {
          "Username": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The user name from the identity provider of the user.</p>",
              "smithy.api#required": {}
            }
          },
          "IdentityProvider": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
             "traits": {
              "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
              "smithy.api#required": {}
            }
          },
          "Product": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
              "smithy.api#required": {}
            }
          },
```

```
            "Domain": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The domain name of the user.</p>"
               }
            }
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscriptionResponse": {
         "type": "structure",
          "members": {
            "ProductUserSummary": {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummary",
               "traits": {
                  "smithy.api#documentation": "<p>Metadata that describes the start product subscription
operation.</p>",
                  "smithy.api#required": {}
               }
            }
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscription": {
         "type": "operation",
         "input": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscriptionRequest"
         },
         "output": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscriptionResponse"
         },
         "errors": [
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"

   },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
```

```
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Stops a product subscription for a user with the specified identity
provider.</p>",
             "smithy.api#http": {
               "code": 200,
               "method": "POST",
               "uri": "/user/StopProductSubscription"
            }
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscriptionRequest": {
         "type": "structure",
         "members": {
            "Username": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The user name from the identity provider for the user.</p>",
                  "smithy.api#required": {}
               }
            },
            "IdentityProvider": {
               "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
               "traits": {
                  "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
                  "smithy.api#required":
{}
               }
            },
            "Product": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
                  "smithy.api#required": {}
               }
            },
            "Domain": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The domain name of the user.</p>"
               }
            }
         }
      },
```

```
    "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscriptionResponse": {
      "type": "structure",
      "members": {
        "ProductUserSummary": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummary",
          "traits": {
            "smithy.api#documentation":
"<p>Metadata that describes the start product subscription operation.</p>",
            "smithy.api#required": {}
          }
        }
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#StringList": {
      "type": "list",
      "member": {
        "target": "smithy.api#String"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#Subnet": {
      "type": "string",
      "traits": {
        "smithy.api#pattern": "subnet-[a-z0-9]{8,17}"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#Subnets": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#Subnet"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException": {
      "type": "structure",
      "members": {
        "message": {

          "target": "smithy.api#String"
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>The request was denied because of request throttling. Retry the
request.</p>",
        "smithy.api#error": "client"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettings": {
      "type": "operation",
      "input": {
```

```
            "target": "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettingsRequest"
          },
          "output": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettingsResponse"
          },
          "errors": [
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
             },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Updates additional product configuration settings for the registered
identity\n      provider.</p>",
            "smithy.api#http": {
              "code": 200,
              "method": "POST",
              "uri": "/identity-provider/UpdateIdentityProviderSettings"
            },
            "smithy.api#idempotent": {}
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettingsRequest": {
          "type": "structure",
          "members": {
            "IdentityProvider": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
               "traits": {
                 "smithy.api#required": {}
              }
            },
            "Product": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
                "smithy.api#required": {}
              }
            },
            "UpdateSettings": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#UpdateSettings",
```

```
            "traits": {
                "smithy.api#documentation": "<p>Updates the registered identity providers product related configuration settings. You can\n      update any combination of settings in a single operation such as the:</p>\n <ul>\n          <li>\n              <p>Subnets which you want to add to provision VPC endpoints.</p>\n          </li>\n          <li>\n              <p>Subnets which you want to remove the VPC endpoints from.</p>\n          </li>\n <li>\n              <p>Security group ID which permits traffic to the VPC endpoints.</p>\n          </li>\n      </ul>",
                "smithy.api#required": {}
            }
          }
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettingsResponse": {
        "type": "structure",
        "members": {
            "IdentityProviderSummary": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary",
                "traits": {
                    "smithy.api#required": {}
                }
            }
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#UpdateSettings": {
        "type": "structure",
        "members": {
            "AddSubnets": {

             "target": "com.amazonaws.licensemanagerusersubscriptions#Subnets",
                "traits": {
                    "smithy.api#documentation": "<p>The ID of one or more subnets in which License Manager will create a VPC endpoint for products that\n      require connectivity to activation servers.</p>",
                    "smithy.api#required": {}
                }
            },
            "RemoveSubnets": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#Subnets",
                "traits": {
                    "smithy.api#documentation": "<p>The ID of one or more subnets to remove.</p>",
                    "smithy.api#required": {}
                }
            },
            "SecurityGroupId": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#SecurityGroup",
                "traits": {
                    "smithy.api#documentation": "<p>A security group ID
 that allows inbound TCP port 1688 communication between resources in\n      your VPC and the VPC endpoints for activation servers.</p>"
                }
```

```
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>Updates the registered identity providers product related configuration settings such as\n      the subnets to provision VPC endpoints.</p>"
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#ValidationException": {
          "type": "structure",
          "members": {
            "message": {
              "target": "smithy.api#String"
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>A parameter is not valid.</p>",
            "smithy.api#error": "client"
          }
        }
      }
    }
    {
      "smithy": "2.0",
      "metadata": {
        "suppressions": [
          {
            "id": "HttpMethodSemantics",
            "namespace": "*"
          },
          {
            "id": "HttpResponseCodeSemantics",
            "namespace": "*"
          },
          {
            "id": "PaginatedTrait",
            "namespace": "*"
          },
          {
            "id": "HttpHeaderTrait",
            "namespace": "*"
          },
          {
            "id": "HttpUriConflict",
            "namespace": "*"
          },
          {
            "id": "Service",
            "namespace": "*"
```

```
      }
    ]
},
"shapes": {
   "com.amazonaws.licensemanager#AWSLicenseManager": {
      "type": "service",
      "version": "2018-08-01",
      "operations": [
         {
            "target": "com.amazonaws.licensemanager#AcceptGrant"
         },

{
            "target": "com.amazonaws.licensemanager#CheckInLicense"
         },
         {
            "target": "com.amazonaws.licensemanager#CheckoutBorrowLicense"
         },
         {
            "target": "com.amazonaws.licensemanager#CheckoutLicense"
         },
         {
            "target": "com.amazonaws.licensemanager#CreateGrant"
         },
         {
            "target": "com.amazonaws.licensemanager#CreateGrantVersion"
         },
         {
            "target": "com.amazonaws.licensemanager#CreateLicense"
         },
         {
            "target": "com.amazonaws.licensemanager#CreateLicenseConfiguration"
         },
         {
            "target": "com.amazonaws.licensemanager#CreateLicenseConversionTaskForResource"
         },
         {
            "target": "com.amazonaws.licensemanager#CreateLicenseManagerReportGenerator"
          },
         {
            "target": "com.amazonaws.licensemanager#CreateLicenseVersion"
         },
         {
            "target": "com.amazonaws.licensemanager#CreateToken"
         },
         {
            "target": "com.amazonaws.licensemanager#DeleteGrant"
         },
```

```
    {
      "target": "com.amazonaws.licensemanager#DeleteLicense"
    },
    {
      "target": "com.amazonaws.licensemanager#DeleteLicenseConfiguration"
    },
    {
      "target": "com.amazonaws.licensemanager#DeleteLicenseManagerReportGenerator"
    },
    {
      "target": "com.amazonaws.licensemanager#DeleteToken"
    },
    {
      "target": "com.amazonaws.licensemanager#ExtendLicenseConsumption"

  },
    {
      "target": "com.amazonaws.licensemanager#GetAccessToken"
    },
    {
      "target": "com.amazonaws.licensemanager#GetGrant"
    },
    {
      "target": "com.amazonaws.licensemanager#GetLicense"
    },
    {
      "target": "com.amazonaws.licensemanager#GetLicenseConfiguration"
    },
    {
      "target": "com.amazonaws.licensemanager#GetLicenseConversionTask"
    },
    {
      "target": "com.amazonaws.licensemanager#GetLicenseManagerReportGenerator"
    },
    {
      "target": "com.amazonaws.licensemanager#GetLicenseUsage"
    },
    {
      "target": "com.amazonaws.licensemanager#GetServiceSettings"
    },
    {
      "target": "com.amazonaws.licensemanager#ListAssociationsForLicenseConfiguration"
     },
    {
      "target": "com.amazonaws.licensemanager#ListDistributedGrants"
    },
    {
      "target": "com.amazonaws.licensemanager#ListFailuresForLicenseConfigurationOperations"
```

```
},
{
   "target": "com.amazonaws.licensemanager#ListLicenseConfigurations"
},
{
   "target": "com.amazonaws.licensemanager#ListLicenseConversionTasks"
},
{
   "target": "com.amazonaws.licensemanager#ListLicenseManagerReportGenerators"
},
{
   "target": "com.amazonaws.licensemanager#ListLicenses"
},
{
   "target": "com.amazonaws.licensemanager#ListLicenseSpecificationsForResource"
},
{

  "target": "com.amazonaws.licensemanager#ListLicenseVersions"
},
{
   "target": "com.amazonaws.licensemanager#ListReceivedGrants"
},
{
   "target": "com.amazonaws.licensemanager#ListReceivedGrantsForOrganization"
},
{
   "target": "com.amazonaws.licensemanager#ListReceivedLicenses"
},
{
   "target": "com.amazonaws.licensemanager#ListReceivedLicensesForOrganization"
},
{
   "target": "com.amazonaws.licensemanager#ListResourceInventory"
},
{
   "target": "com.amazonaws.licensemanager#ListTagsForResource"
},
{
   "target": "com.amazonaws.licensemanager#ListTokens"
},
{
   "target": "com.amazonaws.licensemanager#ListUsageForLicenseConfiguration"
 },
{
   "target": "com.amazonaws.licensemanager#RejectGrant"
},
{
```

```
            "target": "com.amazonaws.licensemanager#TagResource"
          },
          {
            "target": "com.amazonaws.licensemanager#UntagResource"
          },
          {
            "target": "com.amazonaws.licensemanager#UpdateLicenseConfiguration"
          },
          {
            "target": "com.amazonaws.licensemanager#UpdateLicenseManagerReportGenerator"
          },
          {
            "target": "com.amazonaws.licensemanager#UpdateLicenseSpecificationsForResource"
          },
          {
            "target": "com.amazonaws.licensemanager#UpdateServiceSettings"
          }
        ],
        "traits": {
          "aws.api#service": {
             "sdkId": "License Manager",
            "arnNamespace": "license-manager",
            "cloudFormationName": "LicenseManager",
            "cloudTrailEventSource": "licensemanager.amazonaws.com",
            "endpointPrefix": "license-manager"
          },
          "aws.auth#sigv4": {
            "name": "license-manager"
          },
          "aws.protocols#awsJson1_1": {},
          "smithy.api#documentation": "<p>License Manager makes it easier to manage licenses from software
vendors across multiple \n         Amazon Web Services accounts and on-premises servers.</p>",
          "smithy.api#title": "AWS License Manager",
          "smithy.api#xmlNamespace": {
            "uri": "https://license-manager.amazonaws.com/doc/2018_08_01"
          },
          "smithy.rules#endpointRuleSet": {
            "version": "1.0",
            "parameters": {
              "Region": {
                "builtIn": "AWS::Region",
                "required": false,
                "documentation": "The AWS region used to dispatch the request.",
                "type": "String"
              },
              "UseDualStack": {
                "builtIn": "AWS::UseDualStack",
                "required": true,
```

```
            "default": false,
            "documentation": "When true, use the dual-stack endpoint. If the configured endpoint does not support dual-stack, dispatching the request MAY return an error.",
            "type": "Boolean"
          },
          "UseFIPS": {
            "builtIn": "AWS::UseFIPS",
            "required": true,
            "default": false,
            "documentation": "When true, send this request to the FIPS-compliant regional endpoint. If the configured endpoint does not have a FIPS compliant endpoint, dispatching the request will return an error.",
            "type": "Boolean"
          },
          "Endpoint": {
            "builtIn": "SDK::Endpoint",
            "required": false,
            "documentation": "Override the endpoint used to send this request",
            "type": "String"
          }
        },
        "rules": [
          {
            "conditions": [
              {
                "fn": "isSet",
                "argv": [
                  {
                    "ref": "Endpoint"
                  }
                ]

              }
            ],
            "type": "tree",
            "rules": [
              {
                "conditions": [
                  {
                    "fn": "booleanEquals",
                    "argv": [
                      {
                        "ref": "UseFIPS"
                      },
                      true
                    ]
                  }
                ],
```

```
                "error": "Invalid Configuration: FIPS and custom endpoint are not supported",
                "type": "error"
            },
            {

"conditions": [
                {
                    "fn": "booleanEquals",
                    "argv": [
                        {
                            "ref": "UseDualStack"
                        },
                        true
                    ]
                }
            ],
            "error": "Invalid Configuration: Dualstack and custom endpoint are not supported",
            "type": "error"
        },
        {
            "conditions": [],
            "endpoint": {
                "url": {
                    "ref": "Endpoint"
                 },
                "properties": {},
                "headers": {}
            },
            "type": "endpoint"
        }
    ]
},
{
    "conditions": [
        {
            "fn": "isSet",
            "argv": [
                {
                    "ref": "Region"
                }
            ]
        }
    ],
    "type": "tree",
    "rules": [
        {
            "conditions": [
                {
```

```
                "fn": "aws.partition",
                "argv": [
                  {
                    "ref": "Region"
                  }
                ],
                "assign": "PartitionResult"
              }
            ],
            "type": "tree",
            "rules": [
              {
                "conditions": [
                  {
                    "fn": "booleanEquals",
                    "argv": [
                      {
                        "ref":
"UseFIPS"
                      },
                      true
                    ]
                  },
                  {
                    "fn": "booleanEquals",
                    "argv": [
                      {
                        "ref": "UseDualStack"
                      },
                      true
                    ]
                  }
                ],
                "type": "tree",
                "rules": [
                  {
                    "conditions": [
                      {
                        "fn": "booleanEquals",
                        "argv": [
                          true,
                          {
                            "fn": "getAttr",
                            "argv": [
                              {
                                "ref": "PartitionResult"
                              },
                              "supportsFIPS"
```

```
                                    ]

                                }
                                    ]
                                },
                                {
                                    "fn": "booleanEquals",
                                    "argv": [
                                        true,
                                        {
                                            "fn": "getAttr",
                                            "argv": [
                                                {
                                                    "ref": "PartitionResult"
                                                },

    "supportsDualStack"
                                                ]
                                            }
                                        ]
                                    }
                                ],
                                "type": "tree",
                                "rules": [
                                    {
                                        "conditions": [],
                                        "endpoint": {
                                            "url": "https://license-manager-
fips.{Region}.{PartitionResult#dualStackDnsSuffix}",
                                            "properties": {},
                                            "headers": {}

                                    },
                                        "type": "endpoint"
                                    }
                                ]
                            },
                            {
                                "conditions": [],
                                "error": "FIPS and DualStack are enabled, but this partition does not support one or
both",
                                "type": "error"
                            }
                        ]
                    },
                    {
                        "conditions": [
                            {
```

```
            "fn": "booleanEquals",

        "argv": [
                {
                  "ref": "UseFIPS"
                },
                true
              ]
            }
          ],
          "type": "tree",
          "rules": [
            {
              "conditions": [
                {
                  "fn": "booleanEquals",
                  "argv": [
                    true,

{
                      "fn": "getAttr",
                      "argv": [
                        {
                          "ref": "PartitionResult"
                        },
                        "supportsFIPS"
                      ]
                    }
                  ]
                }
              ],
              "type": "tree",
              "rules": [

{
                  "conditions": [],
                  "endpoint": {
                    "url": "https://license-manager-fips.{Region}.{PartitionResult#dnsSuffix}",
                    "properties": {},
                    "headers": {}
                  },
                  "type": "endpoint"
                }
              ]
            },
            {
              "conditions": [],
              "error": "FIPS is enabled but this
```

```
partition does not support FIPS",
                                    "type": "error"
                                }
                            ]
                        },
                        {
                            "conditions": [
                                {
                                    "fn": "booleanEquals",
                                    "argv": [
                                        {
                                            "ref": "UseDualStack"
                                        },
                                        true
                                    ]
                                }
                            ],
                            "type": "tree",
                             "rules": [
                                {
                                    "conditions": [
                                        {
                                            "fn": "booleanEquals",
                                            "argv": [
                                                true,
                                                {
                                                    "fn": "getAttr",
                                                    "argv": [
                                                        {
                                                            "ref": "PartitionResult"
                                                        },

    "supportsDualStack"
                                                    ]
                                                }
                                            ]
                                        }
                                    ],
                                    "type": "tree",
                                    "rules": [
                                        {
                                            "conditions": [],
                                            "endpoint": {
                                                "url": "https://license-
manager.{Region}.{PartitionResult#dualStackDnsSuffix}",
                                                "properties": {},
                                                "headers": {}
```

```
                    },
                        "type": "endpoint"
                    }
                ]
            },
            {
                "conditions": [],
                "error": "DualStack is enabled but this partition does not support DualStack",
                "type": "error"
            }
        ]
    },
    {
        "conditions": [],
        "endpoint": {
            "url": "https://license-manager.{Region}.{PartitionResult#dnsSuffix}",
            "properties": {},
            "headers": {}
        },
        "type": "endpoint"
    }
]
}
]
},
{
"conditions": [],
"error": "Invalid Configuration: Missing Region",
"type": "error"
}
]
},
"smithy.rules#endpointTests": {
"testCases": [
{
"documentation": "For region af-south-1 with FIPS disabled and DualStack disabled",
"expect": {
"endpoint":
{
"url": "https://license-manager.af-south-1.amazonaws.com"
}
},
"params": {
"Region": "af-south-1",
"UseFIPS": false,
"UseDualStack": false
}
},
```

```
{
  "documentation": "For region ap-east-1 with FIPS disabled and DualStack disabled",
  "expect": {
    "endpoint": {
      "url": "https://license-manager.ap-east-1.amazonaws.com"
    }
  },
  "params": {
    "Region": "ap-east-1",
    "UseFIPS": false,
    "UseDualStack": false
   }
},
{
  "documentation": "For region ap-northeast-1 with FIPS disabled and DualStack disabled",
  "expect": {
    "endpoint": {
      "url": "https://license-manager.ap-northeast-1.amazonaws.com"
    }
  },
  "params": {
    "Region": "ap-northeast-1",
    "UseFIPS": false,
    "UseDualStack": false
  }
},
{
  "documentation": "For region ap-northeast-2 with FIPS disabled and DualStack disabled",
  "expect": {
    "endpoint": {
      "url": "https://license-manager.ap-northeast-2.amazonaws.com"
     }
  },
  "params": {
    "Region": "ap-northeast-2",
    "UseFIPS": false,
    "UseDualStack": false
  }
},
{
  "documentation": "For region ap-northeast-3 with FIPS disabled and DualStack disabled",
  "expect": {
    "endpoint": {
      "url": "https://license-manager.ap-northeast-3.amazonaws.com"
    }
  },
  "params": {
    "Region": "ap-northeast-3",
```

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            "UseFIPS": false,
            "UseDualStack": false
        }

    },
    {
        "documentation": "For region ap-south-1 with FIPS disabled and DualStack disabled",
        "expect": {
            "endpoint": {
                "url": "https://license-manager.ap-south-1.amazonaws.com"
            }
        },
        "params": {
            "Region": "ap-south-1",
            "UseFIPS": false,
            "UseDualStack": false
        }
    },
    {
        "documentation": "For region ap-southeast-1 with FIPS disabled and DualStack disabled",
        "expect": {
            "endpoint": {
                "url": "https://license-manager.ap-southeast-1.amazonaws.com"

    }
        },
        "params": {
            "Region": "ap-southeast-1",
            "UseFIPS": false,
            "UseDualStack": false
        }
    },
    {
        "documentation": "For region ap-southeast-2 with FIPS disabled and DualStack disabled",
        "expect": {
            "endpoint": {
                "url": "https://license-manager.ap-southeast-2.amazonaws.com"
            }
        },
        "params": {
            "Region": "ap-southeast-2",
            "UseFIPS": false,
            "UseDualStack": false
        }
    },
    {
```

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        "documentation": "For region ap-southeast-3 with FIPS disabled and DualStack disabled",
            "expect": {
              "endpoint": {
                "url": "https://license-manager.ap-southeast-3.amazonaws.com"
              }
            },
            "params": {
              "Region": "ap-southeast-3",
              "UseFIPS": false,
              "UseDualStack": false
            }
          },
          {
            "documentation": "For region ca-central-1 with FIPS disabled and DualStack disabled",
            "expect": {
              "endpoint": {
                "url": "https://license-manager.ca-central-1.amazonaws.com"
              }
            },

           "params": {
              "Region": "ca-central-1",
              "UseFIPS": false,
              "UseDualStack": false
            }
          },
          {
            "documentation": "For region eu-central-1 with FIPS disabled and DualStack disabled",
            "expect": {
              "endpoint": {
                "url": "https://license-manager.eu-central-1.amazonaws.com"
              }
            },
            "params": {
              "Region": "eu-central-1",
              "UseFIPS": false,
              "UseDualStack": false
            }
          },
          {
            "documentation": "For region eu-north-1 with FIPS
disabled and DualStack disabled",
            "expect": {
              "endpoint": {
                "url": "https://license-manager.eu-north-1.amazonaws.com"
              }
            },
            "params": {
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            "Region": "eu-north-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region eu-south-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager.eu-south-1.amazonaws.com"
            }
          },
          "params": {
            "Region":
"eu-south-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region eu-west-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager.eu-west-1.amazonaws.com"
            }
          },
          "params": {
            "Region": "eu-west-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region eu-west-2 with FIPS disabled and DualStack disabled",
          "expect": {

          "endpoint": {
              "url": "https://license-manager.eu-west-2.amazonaws.com"
            }
          },
          "params": {
            "Region": "eu-west-2",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region eu-west-3 with FIPS disabled and DualStack disabled",
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      "expect": {
        "endpoint": {
          "url": "https://license-manager.eu-west-3.amazonaws.com"
        }
      },
      "params": {
        "Region": "eu-west-3",
        "UseFIPS": false,

"UseDualStack": false
      }
    },
    {
      "documentation": "For region me-south-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager.me-south-1.amazonaws.com"
        }
      },
      "params": {
        "Region": "me-south-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region sa-east-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager.sa-east-1.amazonaws.com"
         }
      },
      "params": {
        "Region": "sa-east-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region us-east-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager.us-east-1.amazonaws.com"
        }
      },
      "params": {
        "Region": "us-east-1",
        "UseFIPS": false,
```

```
            "UseDualStack": false
          }

    },
          {
            "documentation": "For region us-east-1 with FIPS enabled and DualStack disabled",
            "expect": {
              "endpoint": {
                "url": "https://license-manager-fips.us-east-1.amazonaws.com"
              }
            },
            "params": {
              "Region": "us-east-1",
              "UseFIPS": true,
              "UseDualStack": false
            }
          },
          {
            "documentation": "For region us-east-2 with FIPS disabled and DualStack disabled",
            "expect": {
              "endpoint": {
                "url": "https://license-manager.us-east-2.amazonaws.com"
              }

           },
            "params": {
              "Region": "us-east-2",
              "UseFIPS": false,
              "UseDualStack": false
            }
          },
          {
            "documentation": "For region us-east-2 with FIPS enabled and DualStack disabled",
            "expect": {
              "endpoint": {
                "url": "https://license-manager-fips.us-east-2.amazonaws.com"
              }
            },
            "params": {
              "Region": "us-east-2",
              "UseFIPS": true,
              "UseDualStack": false
            }
          },
          {
            "documentation": "For region
us-west-1 with FIPS disabled and DualStack disabled",
            "expect": {
```

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            "endpoint": {
              "url": "https://license-manager.us-west-1.amazonaws.com"
            }
          },
          "params": {
            "Region": "us-west-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-west-1 with FIPS enabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-fips.us-west-1.amazonaws.com"
            }
          },
          "params": {

      "Region": "us-west-1",
            "UseFIPS": true,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-west-2 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager.us-west-2.amazonaws.com"
            }
          },
          "params": {
            "Region": "us-west-2",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-west-2 with FIPS enabled and DualStack disabled",

"expect": {
            "endpoint": {
              "url": "https://license-manager-fips.us-west-2.amazonaws.com"
            }
          },
          "params": {
            "Region": "us-west-2",
            "UseFIPS": true,
```

```
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-east-1 with FIPS enabled and DualStack enabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-fips.us-east-1.api.aws"
            }
          },
          "params": {
            "Region": "us-east-1",
            "UseFIPS": true,

            "UseDualStack": true
          }
        },
        {
          "documentation": "For region us-east-1 with FIPS disabled and DualStack enabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager.us-east-1.api.aws"
            }
          },
          "params": {
            "Region": "us-east-1",
            "UseFIPS": false,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region cn-north-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url":
"https://license-manager.cn-north-1.amazonaws.com.cn"
            }
          },
          "params": {
            "Region": "cn-north-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region cn-northwest-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
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```
                "url": "https://license-manager.cn-northwest-1.amazonaws.com.cn"
              }
            },
            "params": {
              "Region": "cn-northwest-1",
              "UseFIPS": false,
              "UseDualStack": false

}
        },
        {
          "documentation": "For region cn-north-1 with FIPS enabled and DualStack enabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-fips.cn-north-1.api.amazonwebservices.com.cn"
            }
          },
          "params": {
            "Region": "cn-north-1",
            "UseFIPS": true,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region cn-north-1 with FIPS enabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-fips.cn-north-1.amazonaws.com.cn"
             }
          },
          "params": {
            "Region": "cn-north-1",
            "UseFIPS": true,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region cn-north-1 with FIPS disabled and DualStack enabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager.cn-north-1.api.amazonwebservices.com.cn"
            }
          },
          "params": {
            "Region": "cn-north-1",
            "UseFIPS": false,
            "UseDualStack": true
          }
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```
        },

    {
        "documentation": "For region us-gov-east-1 with FIPS disabled and DualStack disabled",
        "expect": {
          "endpoint": {
            "url": "https://license-manager.us-gov-east-1.amazonaws.com"
          }
        },
        "params": {
          "Region": "us-gov-east-1",
          "UseFIPS": false,
          "UseDualStack": false
        }
      },
      {
        "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack disabled",
        "expect": {
          "endpoint": {
            "url": "https://license-manager-fips.us-gov-east-1.amazonaws.com"
          }
         },
        "params": {
          "Region": "us-gov-east-1",
          "UseFIPS": true,
          "UseDualStack": false
        }
      },
      {
        "documentation": "For region us-gov-west-1 with FIPS disabled and DualStack disabled",
        "expect": {
          "endpoint": {
            "url": "https://license-manager.us-gov-west-1.amazonaws.com"
          }
        },
        "params": {
          "Region": "us-gov-west-1",
          "UseFIPS": false,
          "UseDualStack": false
        }
      },
      {
        "documentation":
"For region us-gov-west-1 with FIPS enabled and DualStack disabled",
        "expect": {
          "endpoint": {
            "url": "https://license-manager-fips.us-gov-west-1.amazonaws.com"
          }
```

```
      },
      "params": {
        "Region": "us-gov-west-1",
        "UseFIPS": true,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack enabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-fips.us-gov-east-1.api.aws"
        }
      },

  "params": {
        "Region": "us-gov-east-1",
        "UseFIPS": true,
        "UseDualStack": true
      }
    },
    {
      "documentation": "For region us-gov-east-1 with FIPS disabled and DualStack enabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager.us-gov-east-1.api.aws"
        }
      },
      "params": {
        "Region": "us-gov-east-1",
        "UseFIPS": false,
        "UseDualStack": true
      }
    },
    {
      "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack
disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager.us-iso-east-1.c2s.ic.gov"
        }
      },
      "params": {
        "Region": "us-iso-east-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
```

```
        {
          "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack enabled",
          "expect": {
            "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
          },
          "params": {
            "Region": "us-iso-east-1",
            "UseFIPS": true,
             "UseDualStack": true
          }
        },
        {
          "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack disabled",
          "expect": {
            "endpoint": {
               "url": "https://license-manager-fips.us-iso-east-1.c2s.ic.gov"
            }
          },
          "params": {
            "Region": "us-iso-east-1",
            "UseFIPS": true,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack enabled",
          "expect": {
            "error": "DualStack is enabled
but this partition does not support DualStack"
          },
          "params": {
            "Region": "us-iso-east-1",
            "UseFIPS": false,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
               "url": "https://license-manager.us-isob-east-1.sc2s.sgov.gov"
            }
          },
          "params": {
            "Region": "us-isob-east-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
```

```
    },

    {
      "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack enabled",
      "expect": {
        "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
      },
      "params": {
        "Region": "us-isob-east-1",
        "UseFIPS": true,
        "UseDualStack": true
      }
    },
    {
      "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-fips.us-isob-east-1.sc2s.sgov.gov"
        }
      },

  "params": {
        "Region": "us-isob-east-1",
        "UseFIPS": true,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack enabled",
      "expect": {
        "error": "DualStack is enabled but this partition does not support DualStack"
      },
      "params": {
        "Region": "us-isob-east-1",
        "UseFIPS": false,
        "UseDualStack": true
      }
    },
    {
      "documentation": "For custom endpoint with region set and fips disabled and dualstack disabled",

"expect": {
        "endpoint": {
          "url": "https://example.com"
        }
      },
      "params": {
        "Region": "us-east-1",
```

```
                "UseFIPS": false,
                "UseDualStack": false,
                "Endpoint": "https://example.com"
            }
        },
        {
            "documentation": "For custom endpoint with region not set and fips disabled and dualstack
disabled",
            "expect": {
                "endpoint": {
                    "url": "https://example.com"
                }
            },
            "params": {
                "UseFIPS": false,

    "UseDualStack": false,
                "Endpoint": "https://example.com"
            }
        },
        {
            "documentation": "For custom endpoint with fips enabled and dualstack disabled",
            "expect": {
                "error": "Invalid Configuration: FIPS and custom endpoint are not supported"
            },
            "params": {
                "Region": "us-east-1",
                "UseFIPS": true,
                "UseDualStack": false,
                "Endpoint": "https://example.com"
            }
        },
        {
            "documentation": "For custom endpoint with fips disabled and dualstack enabled",
            "expect": {
                "error":
 "Invalid Configuration: Dualstack and custom endpoint are not supported"
            },
            "params": {
                "Region": "us-east-1",
                "UseFIPS": false,
                "UseDualStack": true,
                "Endpoint": "https://example.com"
            }
        },
        {
            "documentation": "Missing region",
            "expect": {
```

```
                        "error": "Invalid Configuration: Missing Region"
                    }
                }
            ],
            "version": "1.0"
        }
    }
  },
  "com.amazonaws.licensemanager#AcceptGrant": {
    "type": "operation",
    "input": {
      "target": "com.amazonaws.licensemanager#AcceptGrantRequest"

},
    "output": {
      "target": "com.amazonaws.licensemanager#AcceptGrantResponse"
    },
    "errors": [
      {
        "target": "com.amazonaws.licensemanager#AccessDeniedException"
      },
      {
        "target": "com.amazonaws.licensemanager#AuthorizationException"
      },
      {
        "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
      },
      {
        "target": "com.amazonaws.licensemanager#RateLimitExceededException"
      },
      {
        "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
      },
      {
        "target": "com.amazonaws.licensemanager#ServerInternalException"
      },
      {
        "target": "com.amazonaws.licensemanager#ValidationException"

  }
    ],
    "traits": {
      "smithy.api#documentation": "<p>Accepts the specified grant.</p>"
    }
  },
  "com.amazonaws.licensemanager#AcceptGrantRequest": {
    "type": "structure",
    "members": {
```

```
            "GrantArn": {
              "target": "com.amazonaws.licensemanager#Arn",
              "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the grant.</p>",
                "smithy.api#required": {}
              }
            }
          },
          "traits": {
            "smithy.api#input": {}
          }
        },
        "com.amazonaws.licensemanager#AcceptGrantResponse": {
          "type": "structure",
          "members": {
            "GrantArn": {
              "target": "com.amazonaws.licensemanager#Arn",
              "traits": {
                "smithy.api#documentation": "<p>Grant
ARN.</p>"
              }
            },
            "Status": {
              "target": "com.amazonaws.licensemanager#GrantStatus",
              "traits": {
                "smithy.api#documentation": "<p>Grant status.</p>"
              }
            },
            "Version": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Grant version.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#output": {}
          }
        },
        "com.amazonaws.licensemanager#AccessDeniedException": {
          "type": "structure",
          "members": {
            "Message": {
              "target": "com.amazonaws.licensemanager#Message"
            }
          },
          "traits": {
            "aws.protocols#awsQueryError": {
```

```
"code": "ServiceAccessDenied",
            "httpResponseCode": 401
        },
        "smithy.api#documentation": "<p>Access to resource denied.</p>",
        "smithy.api#error": "client",
        "smithy.api#httpError": 401
      }
    },
    "com.amazonaws.licensemanager#ActivationOverrideBehavior": {
      "type": "enum",
      "members": {
        "DISTRIBUTED_GRANTS_ONLY": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "DISTRIBUTED_GRANTS_ONLY"
          }
        },
        "ALL_GRANTS_PERMITTED_BY_ISSUER": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "ALL_GRANTS_PERMITTED_BY_ISSUER"
          }
        }
      }
    },
    "com.amazonaws.licensemanager#AllowedOperation": {

    "type": "enum",
      "members": {
        "CREATE_GRANT": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "CreateGrant"
          }
        },
        "CHECKOUT_LICENSE": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "CheckoutLicense"
          }
        },
        "CHECKOUT_BORROW_LICENSE": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "CheckoutBorrowLicense"
          }
        },
```

```
            "CHECK_IN_LICENSE": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "CheckInLicense"
               }
            },
            "EXTEND_CONSUMPTION_LICENSE":
{
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "ExtendConsumptionLicense"
               }
            },
            "LIST_PURCHASED_LICENSES": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "ListPurchasedLicenses"
               }
            },
            "CREATE_TOKEN": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "CreateToken"
               }
            }
         }
      },
      "com.amazonaws.licensemanager#AllowedOperationList": {
         "type": "list",
         "member": {
            "target": "com.amazonaws.licensemanager#AllowedOperation"
         },
         "traits": {
            "smithy.api#length": {
               "min": 1,
               "max":
7
            }
         }
      },
      "com.amazonaws.licensemanager#Arn": {
         "type": "string",
         "traits": {
            "smithy.api#length": {
               "min": 0,
               "max": 2048
            },
            "smithy.api#pattern": "^arn:aws(-(cn|us-gov|iso-b|iso-c|iso-d))?:[A-Za-z0-9][A-Za-z0-9_/.-]{0,62}:[A-Za-
```

```
z0-9_/.-]{0,63}:[A-Za-z0-9_/.-]{0,63}:[A-Za-z0-9][A-Za-z0-9:_/+=,@.-]{0,1023}$"
        }
      },
      "com.amazonaws.licensemanager#ArnList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#Arn"
        }
      },
      "com.amazonaws.licensemanager#AuthorizationException": {
        "type": "structure",
        "members": {
          "Message": {
            "target": "com.amazonaws.licensemanager#Message"
          }
        },
        "traits": {
          "aws.protocols#awsQueryError":
{
            "code": "AuthorizationFailure",
            "httpResponseCode": 403
          },
          "smithy.api#documentation": "<p>The Amazon Web Services user account does not have permission to
perform the action. Check the IAM\n        policy associated with this account.</p>",
          "smithy.api#error": "client",
          "smithy.api#httpError": 403
        }
      },
      "com.amazonaws.licensemanager#AutomatedDiscoveryInformation": {
        "type": "structure",
        "members": {
          "LastRunTime": {
            "target": "com.amazonaws.licensemanager#DateTime",
            "traits": {
              "smithy.api#documentation": "<p>Time that automated discovery last ran.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Describes automated discovery.</p>"
        }
      },

    "com.amazonaws.licensemanager#Boolean": {
        "type": "boolean",
        "traits": {
          "smithy.api#default": false
        }
```

```
    },
    "com.amazonaws.licensemanager#BorrowConfiguration": {
      "type": "structure",
      "members": {
        "AllowEarlyCheckIn": {
          "target": "com.amazonaws.licensemanager#BoxBoolean",
          "traits": {
            "smithy.api#documentation": "<p>Indicates whether early check-ins are allowed.</p>",
            "smithy.api#required": {}
          }
        },
        "MaxTimeToLiveInMinutes": {
          "target": "com.amazonaws.licensemanager#BoxInteger",
          "traits": {
            "smithy.api#documentation": "<p>Maximum time for the borrow configuration, in minutes.</p>",
            "smithy.api#required": {}
          }
        }

},
      "traits": {
        "smithy.api#documentation": "<p>Details about a borrow configuration.</p>"
      }
    },
    "com.amazonaws.licensemanager#BoxBoolean": {
      "type": "boolean"
    },
    "com.amazonaws.licensemanager#BoxInteger": {
      "type": "integer"
    },
    "com.amazonaws.licensemanager#BoxLong": {
      "type": "long"
    },
    "com.amazonaws.licensemanager#CheckInLicense": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#CheckInLicenseRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#CheckInLicenseResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
```

```
    },
        {
          "target": "com.amazonaws.licensemanager#ConflictException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
          "target": "com.amazonaws.licensemanager#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Checks in the specified license. Check in a license when it is no longer
in use.</p>"
      }
    },
    "com.amazonaws.licensemanager#CheckInLicenseRequest":
{
      "type": "structure",
      "members": {
        "LicenseConsumptionToken": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>License consumption token.</p>",
            "smithy.api#required": {}
          }
        },
        "Beneficiary": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>License beneficiary.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#CheckInLicenseResponse": {
```

```
        "type": "structure",
        "members": {},
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#CheckoutBorrowLicense":
{
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#CheckoutBorrowLicenseRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#CheckoutBorrowLicenseResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#EntitlementNotAllowedException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {
            "target": "com.amazonaws.licensemanager#NoEntitlementsAllowedException"
          },
          {
            "target":
"com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#RedirectException"
          },
          {
            "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          },
          {
            "target": "com.amazonaws.licensemanager#UnsupportedDigitalSignatureMethodException"
          },
          {
```

```
            "target": "com.amazonaws.licensemanager#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Checks out the specified license for offline use.</p>"
        }
      },
      "com.amazonaws.licensemanager#CheckoutBorrowLicenseRequest": {
        "type": "structure",
        "members":
{
          "LicenseArn": {
            "target": "com.amazonaws.licensemanager#Arn",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license. The license must
use the borrow consumption configuration.</p>",
              "smithy.api#required": {}
            }
          },
          "Entitlements": {
            "target": "com.amazonaws.licensemanager#EntitlementDataList",
            "traits": {
              "smithy.api#documentation": "<p>License entitlements. Partial checkouts are not supported.</p>",
              "smithy.api#required": {}
            }
          },
          "DigitalSignatureMethod": {
            "target": "com.amazonaws.licensemanager#DigitalSignatureMethod",
            "traits": {
              "smithy.api#documentation": "<p>Digital signature method. The possible
 value is JSON Web Signature (JWS) algorithm PS384.\n        For more information, see <a
href=\"https://tools.ietf.org/html/rfc7518#section-3.5\">RFC 7518 Digital Signature with RSASSA-PSS</a>.</p>",
              "smithy.api#required": {}
            }
          },
          "NodeId": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Node ID.</p>"
            }
          },
          "CheckoutMetadata": {
            "target": "com.amazonaws.licensemanager#MetadataList",
            "traits": {
              "smithy.api#documentation": "<p>Information about constraints.</p>"
            }
          },
          "ClientToken": {
```

```
            "target": "com.amazonaws.licensemanager#ClientToken",
            "traits": {
              "smithy.api#documentation":
"<p>Unique, case-sensitive identifier that you provide to ensure the idempotency of the request.</p>",
              "smithy.api#required": {}
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#CheckoutBorrowLicenseResponse": {
        "type": "structure",
        "members": {
          "LicenseArn": {
            "target": "com.amazonaws.licensemanager#Arn",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>"
            }
          },
          "LicenseConsumptionToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>License consumption token.</p>"
            }
          },
          "EntitlementsAllowed":
{
            "target": "com.amazonaws.licensemanager#EntitlementDataList",
            "traits": {
              "smithy.api#documentation": "<p>Allowed license entitlements.</p>"
            }
          },
          "NodeId": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Node ID.</p>"
            }
          },
          "SignedToken": {
            "target": "com.amazonaws.licensemanager#SignedToken",
            "traits": {
              "smithy.api#documentation": "<p>Signed token.</p>"
            }
          },
          "IssuedAt": {
            "target": "com.amazonaws.licensemanager#ISO8601DateTime",
```

```
            "traits": {
              "smithy.api#documentation": "<p>Date and time at which the license checkout
is issued.</p>"
            }
          },
          "Expiration": {
            "target": "com.amazonaws.licensemanager#ISO8601DateTime",
            "traits": {
              "smithy.api#documentation": "<p>Date and time at which the license checkout expires.</p>"
            }
          },
          "CheckoutMetadata": {
            "target": "com.amazonaws.licensemanager#MetadataList",
            "traits": {
              "smithy.api#documentation": "<p>Information about constraints.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#CheckoutLicense": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#CheckoutLicenseRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#CheckoutLicenseResponse"
         },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {
            "target": "com.amazonaws.licensemanager#NoEntitlementsAllowedException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#RedirectException"
```

```
            },
            {
               "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
            },
            {
               "target":
 "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
               "target": "com.amazonaws.licensemanager#UnsupportedDigitalSignatureMethodException"
            },
            {
               "target": "com.amazonaws.licensemanager#ValidationException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Checks out the specified license.</p>\n         <note>\n            <p>If the
 account that created the license is the same that is performing the check out, you must\n            specify the account
 as the beneficiary.</p>\n         </note>"
         }
      },
      "com.amazonaws.licensemanager#CheckoutLicenseRequest": {
         "type": "structure",
         "members": {
            "ProductSKU": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Product
 SKU.</p>",
                  "smithy.api#required": {}
               }
            },
            "CheckoutType": {
               "target": "com.amazonaws.licensemanager#CheckoutType",
               "traits": {
                  "smithy.api#documentation": "<p>Checkout type.</p>",
                  "smithy.api#required": {}
               }
            },
            "KeyFingerprint": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Key fingerprint identifying the license.</p>",
                  "smithy.api#required": {}
               }
            },
            "Entitlements": {
               "target": "com.amazonaws.licensemanager#EntitlementDataList",
```

```
            "traits": {
              "smithy.api#documentation": "<p>License entitlements.</p>",

    "smithy.api#required": {}
            }
          },
          "ClientToken": {
            "target": "com.amazonaws.licensemanager#ClientToken",
            "traits": {
              "smithy.api#documentation": "<p>Unique, case-sensitive identifier that you provide to ensure the
idempotency of the request.</p>",
              "smithy.api#required": {}
            }
          },
          "Beneficiary": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>License beneficiary.</p>"
            }
          },
          "NodeId": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Node ID.</p>"
            }
          }
        },
        "traits": {

       "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#CheckoutLicenseResponse": {
        "type": "structure",
        "members": {
          "CheckoutType": {
            "target": "com.amazonaws.licensemanager#CheckoutType",
            "traits": {
              "smithy.api#documentation": "<p>Checkout type.</p>"
            }
          },
          "LicenseConsumptionToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>License consumption token.</p>"
            }
          },
          "EntitlementsAllowed": {
```

```
            "target": "com.amazonaws.licensemanager#EntitlementDataList",
            "traits": {
              "smithy.api#documentation": "<p>Allowed license entitlements.</p>"
            }
          },
          "SignedToken": {
            "target": "com.amazonaws.licensemanager#SignedToken",
            "traits": {
              "smithy.api#documentation": "<p>Signed token.</p>"
            }
          },
          "NodeId": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Node ID.</p>"
            }
          },
          "IssuedAt": {
            "target": "com.amazonaws.licensemanager#ISO8601DateTime",
            "traits": {
              "smithy.api#documentation": "<p>Date and time at which the license checkout is issued.</p>"
            }
          },
          "Expiration": {
            "target": "com.amazonaws.licensemanager#ISO8601DateTime",
            "traits": {
              "smithy.api#documentation": "<p>Date and
time at which the license checkout expires.</p>"
            }
          },
          "LicenseArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the checkout license.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#CheckoutType": {
        "type": "enum",
        "members": {
          "PROVISIONAL": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "PROVISIONAL"
```

```
            }
          },
          "PERPETUAL": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "PERPETUAL"
            }
          }
        }
      },
      "com.amazonaws.licensemanager#ClientRequestToken": {
        "type": "string",
        "traits": {
          "smithy.api#length": {
            "min": 1,
            "max": 36
          }
        }
      },
      "com.amazonaws.licensemanager#ClientToken": {
        "type": "string",
        "traits": {
          "smithy.api#length": {
            "min": 0,
            "max": 2048
          },
          "smithy.api#pattern": "^\\S+$"
        }
      },
      "com.amazonaws.licensemanager#ConflictException": {
        "type": "structure",
        "members": {
          "Message": {
            "target": "com.amazonaws.licensemanager#Message"
          }
        },
        "traits": {
          "aws.protocols#awsQueryError": {
            "code": "ConflictException",
            "httpResponseCode":
409
          },
          "smithy.api#documentation": "<p>There was a conflict processing the request. Try your request
again.</p>",
          "smithy.api#error": "client",
          "smithy.api#httpError": 409
        }
      },
```

```
    "com.amazonaws.licensemanager#ConsumedLicenseSummary": {
      "type": "structure",
      "members": {
        "ResourceType": {
          "target": "com.amazonaws.licensemanager#ResourceType",
          "traits": {
            "smithy.api#documentation": "<p>Resource type of the resource consuming a license.</p>"
          }
        },
        "ConsumedLicenses": {
          "target": "com.amazonaws.licensemanager#BoxLong",
          "traits": {
            "smithy.api#documentation": "<p>Number of licenses consumed by the resource.</p>"
          }
        }
      },

"traits": {
        "smithy.api#documentation": "<p>Details about license consumption.</p>"
      }
    },
    "com.amazonaws.licensemanager#ConsumedLicenseSummaryList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanager#ConsumedLicenseSummary"
      }
    },
    "com.amazonaws.licensemanager#ConsumptionConfiguration": {
      "type": "structure",
      "members": {
        "RenewType": {
          "target": "com.amazonaws.licensemanager#RenewType",
          "traits": {
            "smithy.api#documentation": "<p>Renewal frequency.</p>"
          }
        },
        "ProvisionalConfiguration": {
          "target": "com.amazonaws.licensemanager#ProvisionalConfiguration",
          "traits": {
            "smithy.api#documentation": "<p>Details about a provisional configuration.</p>"
           }
        },
        "BorrowConfiguration": {
          "target": "com.amazonaws.licensemanager#BorrowConfiguration",
          "traits": {
            "smithy.api#documentation": "<p>Details about a borrow configuration.</p>"
          }
        }
```

```
        },
        "traits": {
            "smithy.api#documentation": "<p>Details about a consumption configuration.</p>"
        }
    },
    "com.amazonaws.licensemanager#CreateGrant": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#CreateGrantRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#CreateGrantResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target":
 "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Creates a grant for the specified license. A grant shares the use of
 license\n            entitlements with a specific Amazon Web Services account, an organization, or an\n
 organizational unit (OU). For more
 information, see <a href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/granted-
licenses.html\">Granted licenses in License Manager</a> in the <i>License Manager User Guide</i>.</p>"
        }
    },
    "com.amazonaws.licensemanager#CreateGrantRequest": {
        "type": "structure",
        "members": {
```

```
        "ClientToken": {
          "target": "com.amazonaws.licensemanager#ClientToken",
          "traits": {
            "smithy.api#documentation": "<p>Unique, case-sensitive identifier that you provide to ensure the
idempotency of the request.</p>",
            "smithy.api#required": {}
          }
        },
        "GrantName": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Grant name.</p>",
            "smithy.api#required": {}

    }
        },
        "LicenseArn": {
          "target": "com.amazonaws.licensemanager#Arn",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>",
            "smithy.api#required": {}
          }
        },
        "Principals": {
          "target": "com.amazonaws.licensemanager#PrincipalArnList",
          "traits": {
            "smithy.api#documentation": "<p>The grant principals. You can specify one of the following as an
Amazon Resource Name\n (ARN):</p>\n <ul>\n <li>\n <p>An Amazon Web Services
account, which includes only the account specified.</p>\n </li>\n </ul>\n <ul>\n <li>\n
  <p>An organizational unit (OU), which includes all accounts in the OU.</p>\n </li>\n </ul>\n
<ul>\n
      <li>\n <p>An organization, which will include all accounts across your organization.</p>\n
</li>\n </ul>",
            "smithy.api#required": {}
          }
        },
        "HomeRegion": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Home Region of the grant.</p>",
            "smithy.api#required": {}
          }
        },
        "AllowedOperations": {
          "target": "com.amazonaws.licensemanager#AllowedOperationList",
          "traits": {
            "smithy.api#documentation": "<p>Allowed operations for the grant.</p>",
            "smithy.api#required": {}
```

```
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },

    "com.amazonaws.licensemanager#CreateGrantResponse": {
        "type": "structure",
        "members": {
          "GrantArn": {
            "target": "com.amazonaws.licensemanager#Arn",
            "traits": {
              "smithy.api#documentation": "<p>Grant ARN.</p>"
            }
          },
          "Status": {
            "target": "com.amazonaws.licensemanager#GrantStatus",
            "traits": {
              "smithy.api#documentation": "<p>Grant status.</p>"
            }
          },
          "Version": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Grant version.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
     "com.amazonaws.licensemanager#CreateGrantVersion":
{
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#CreateGrantVersionRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#CreateGrantVersionResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
```

```
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          },
          {
            "target": "com.amazonaws.licensemanager#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Creates a new version of the specified grant. For more information, see\n        <a href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/granted-licenses.html\">Granted licenses in License Manager</a> in the <i>License Manager User Guide</i>.</p>"
        }
      },
      "com.amazonaws.licensemanager#CreateGrantVersionRequest": {
        "type": "structure",
        "members": {
          "ClientToken": {
            "target": "com.amazonaws.licensemanager#ClientToken",
            "traits": {
              "smithy.api#documentation": "<p>Unique, case-sensitive identifier that you provide to ensure the idempotency of the request.</p>",

   "smithy.api#required": {}
            }
          },
          "GrantArn": {
            "target": "com.amazonaws.licensemanager#Arn",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the grant.</p>",
              "smithy.api#required": {}
            }
          },
          "GrantName": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Grant name.</p>"
            }
```

```
        },
        "AllowedOperations": {
          "target": "com.amazonaws.licensemanager#AllowedOperationList",
          "traits": {
            "smithy.api#documentation": "<p>Allowed operations for the grant.</p>"
          }
        },
        "Status": {
          "target": "com.amazonaws.licensemanager#GrantStatus",
          "traits": {
            "smithy.api#documentation": "<p>Grant status.</p>"
          }
        },
        "StatusReason": {
          "target": "com.amazonaws.licensemanager#StatusReasonMessage",
          "traits": {
            "smithy.api#documentation": "<p>Grant status reason.</p>"
          }
        },
        "SourceVersion": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Current version of the grant.</p>"
          }
        },
        "Options": {
          "target": "com.amazonaws.licensemanager#Options",
          "traits": {
            "smithy.api#documentation": "<p>The options specified for the grant.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#CreateGrantVersionResponse": {
      "type": "structure",
      "members": {
        "GrantArn": {
          "target": "com.amazonaws.licensemanager#Arn",
          "traits": {
            "smithy.api#documentation": "<p>Grant ARN.</p>"
          }
        },
        "Status": {
          "target": "com.amazonaws.licensemanager#GrantStatus",
          "traits": {
```

```
                "smithy.api#documentation": "<p>Grant status.</p>"
              }
            },
            "Version": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>New version of the grant.</p>"
              }
            }
          },
          "traits":
{
            "smithy.api#output": {}
          }
        },
        "com.amazonaws.licensemanager#CreateLicense": {
          "type": "operation",
          "input": {
            "target": "com.amazonaws.licensemanager#CreateLicenseRequest"
          },
          "output": {
            "target": "com.amazonaws.licensemanager#CreateLicenseResponse"
          },
          "errors": [
            {
              "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
              "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
              "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
              "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
              "target": "com.amazonaws.licensemanager#RedirectException"
             },
            {
              "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
              "target": "com.amazonaws.licensemanager#ValidationException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Creates a license.</p>"
```

```
        }
      },
      "com.amazonaws.licensemanager#CreateLicenseConfiguration": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#CreateLicenseConfigurationRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#CreateLicenseConfigurationResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Creates a license configuration.</p>\n          <p>A license configuration is an abstraction of a customer license agreement that can be\n          consumed and enforced by License Manager. Components include specifications for the license\n          type (licensing by instance, socket, CPU, or vCPU), allowed tenancy (shared tenancy, \n          Dedicated Instance, Dedicated Host, or all of these), license affinity  to host (how long a \n          license must be associated with a host), and the number of licenses purchased and used.</p>"
        }
      },
      "com.amazonaws.licensemanager#CreateLicenseConfigurationRequest": {
        "type": "structure",
        "members": {
          "Name": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Name of the license configuration.</p>",
              "smithy.api#required": {}
            }
```

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        },
        "Description": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Description of the license configuration.</p>"
          }
        },
        "LicenseCountingType": {
          "target": "com.amazonaws.licensemanager#LicenseCountingType",
          "traits": {
            "smithy.api#documentation": "<p>Dimension used to track the license inventory.</p>",
            "smithy.api#required": {}
          }
        },
        "LicenseCount": {
          "target": "com.amazonaws.licensemanager#BoxLong",
          "traits": {
            "smithy.api#documentation": "<p>Number of licenses managed by the license configuration.</p>"
          }
        },
        "LicenseCountHardLimit": {
          "target": "com.amazonaws.licensemanager#BoxBoolean",
          "traits": {
            "smithy.api#documentation": "<p>Indicates whether hard or soft license enforcement is used.
Exceeding a hard limit\n        blocks the launch of new instances.</p>"
          }
        },
        "LicenseRules": {
          "target":
 "com.amazonaws.licensemanager#StringList",
          "traits": {
            "smithy.api#documentation": "<p>License rules. The syntax is #name=value (for example,
#allowedTenancy=EC2-DedicatedHost). The available rules \n        vary by dimension, as follows.</p>\n
<ul>\n          <li>\n            <p>\n              <code>Cores</code> dimension: <code>allowedTenancy</code> |\n
        <code>licenseAffinityToHost</code> |\n            <code>maximumCores</code> |
<code>minimumCores</code>\n            </p>\n          </li>\n          <li>\n            <p>\n
<code>Instances</code> dimension: <code>allowedTenancy</code> | \n            <code>maximumCores</code> |
<code>minimumCores</code> |\n            <code>maximumSockets</code> | <code>minimumSockets</code> |\n
        <code>maximumVcpus</code> | <code>minimumVcpus</code>\n            </p>\n          </li>\n
<li>\n
  <p>\n              <code>Sockets</code> dimension: <code>allowedTenancy</code> | \n
<code>licenseAffinityToHost</code> |\n            <code>maximumSockets</code> |
<code>minimumSockets</code>\n            </p>\n          </li>\n          <li>\n            <p>\n
<code>vCPUs</code> dimension: <code>allowedTenancy</code> | \n
<code>honorVcpuOptimization</code> | \n            <code>maximumVcpus</code> |
<code>minimumVcpus</code>\n            </p>\n          </li>\n        </ul>\n        <p>The unit for
<code>licenseAffinityToHost</code> is days and the range is 1 to 180. The possible \n        values for
<code>allowedTenancy</code> are <code>EC2-Default</code>, <code>EC2-DedicatedHost</code>, and \n
```

<code>EC2-DedicatedInstance</code>. The possible values for <code>honorVcpuOptimization</code> are \n <code>True</code> and <code>False</code>. "
                }
            },

  "Tags": {
                "target": "com.amazonaws.licensemanager#TagList",
                "traits": {
                    "smithy.api#documentation": " Tags to add to the license configuration. "
                }
            },
            "DisassociateWhenNotFound": {
                "target": "com.amazonaws.licensemanager#BoxBoolean",
                "traits": {
                    "smithy.api#documentation": " When true, disassociates a resource when software is uninstalled. "
                }
            },
            "ProductInformationList": {
                "target": "com.amazonaws.licensemanager#ProductInformationList",
                "traits": {
                    "smithy.api#documentation": " Product information. "
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#CreateLicenseConfigurationResponse":
{
        "type": "structure",
        "members": {
            "LicenseConfigurationArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": " Amazon Resource Name (ARN) of the license configuration. "
                }
            }
        },
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#CreateLicenseConversionTaskForResource": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#CreateLicenseConversionTaskForResourceRequest"

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        },
        "output": {
            "target": "com.amazonaws.licensemanager#CreateLicenseConversionTaskForResourceResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
             },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Creates a new license conversion task.</p>"
        }
    },
    "com.amazonaws.licensemanager#CreateLicenseConversionTaskForResourceRequest": {
        "type": "structure",
        "members": {
            "ResourceArn": {

                "target": "com.amazonaws.licensemanager#Arn",
                 "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the resource you are converting
the license type for.</p>",
                    "smithy.api#required": {}
                 }
            },
            "SourceLicenseContext": {
                "target": "com.amazonaws.licensemanager#LicenseConversionContext",
                "traits": {
                    "smithy.api#documentation": "<p>Information that identifies the license type you are converting
from. \n\n         For the structure of the source license, see <a href=\"https://docs.aws.amazon.com/license-
manager/latest/userguide/conversion-procedures.html#conversion-cli\">Convert a license type using the CLI </a> in
the <i>License Manager User Guide</i>.</p>",
                    "smithy.api#required": {}
```

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            }
          },
          "DestinationLicenseContext":
{
            "target": "com.amazonaws.licensemanager#LicenseConversionContext",
            "traits": {
              "smithy.api#documentation": "<p>Information that identifies the license type you are converting to.
For the structure of the destination license, see <a href=\"https://docs.aws.amazon.com/license-
manager/latest/userguide/conversion-procedures.html#conversion-cli\">Convert a license type using the CLI </a> in
the <i>License Manager User Guide</i>.</p>",
              "smithy.api#required": {}
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#CreateLicenseConversionTaskForResourceResponse": {
        "type": "structure",
        "members": {
          "LicenseConversionTaskId": {
            "target": "com.amazonaws.licensemanager#LicenseConversionTaskId",

         "traits": {
              "smithy.api#documentation": "<p>The ID of the created license type conversion task.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#CreateLicenseManagerReportGenerator": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#CreateLicenseManagerReportGeneratorRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#CreateLicenseManagerReportGeneratorResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
```

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            {
               "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
               "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
               "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
               "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
            },
            {
               "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
               "target": "com.amazonaws.licensemanager#ValidationException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Creates a report generator.</p>"
         }
      },
      "com.amazonaws.licensemanager#CreateLicenseManagerReportGeneratorRequest": {
         "type": "structure",
         "members": {
            "ReportGeneratorName":
{
               "target": "com.amazonaws.licensemanager#ReportGeneratorName",
               "traits": {
                  "smithy.api#documentation": "<p>Name of the report generator.</p>",
                  "smithy.api#required": {}
               }
            },
            "Type": {
               "target": "com.amazonaws.licensemanager#ReportTypeList",
               "traits": {
                  "smithy.api#documentation": "<p>Type of reports to generate. The following report types an be generated:</p>\n <ul>\n <li>\n <p>License configuration report - Reports the number and details of consumed licenses for a license configuration.</p>\n </li>\n <li>\n <p>Resource report - Reports the tracked licenses and resource consumption for a license configuration.</p>\n </li>\n </ul>",
                  "smithy.api#required": {}

         }
            },
            "ReportContext": {
               "target": "com.amazonaws.licensemanager#ReportContext",
```

```
            "traits": {
              "smithy.api#documentation": "<p>Defines the type of license configuration the report generator tracks.</p>",
              "smithy.api#required": {}
            }
          },
          "ReportFrequency": {
            "target": "com.amazonaws.licensemanager#ReportFrequency",
            "traits": {
              "smithy.api#documentation": "<p>Frequency by which reports are generated.  Reports can be generated daily, monthly, or weekly.</p>",
              "smithy.api#required": {}
            }
          },
          "ClientToken": {
            "target": "com.amazonaws.licensemanager#ClientRequestToken",
            "traits": {
              "smithy.api#documentation": "<p>Unique, case-sensitive identifier that you provide to ensure the idempotency of the request.</p>",
              "smithy.api#required": {}
            }
          },
          "Description": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Description of the report generator.</p>"
            }
          },
          "Tags": {
            "target": "com.amazonaws.licensemanager#TagList",
            "traits": {
              "smithy.api#documentation": "<p>Tags to add to the report generator.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#CreateLicenseManagerReportGeneratorResponse": {
        "type": "structure",
        "members": {
          "LicenseManagerReportGeneratorArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the new report generator.</p>"
```

```
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#CreateLicenseRequest": {
        "type": "structure",
        "members": {
          "LicenseName": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>License name.</p>",
              "smithy.api#required": {}
            }
          },
          "ProductName": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Product
name.</p>",
              "smithy.api#required": {}
            }
          },
          "ProductSKU": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Product SKU.</p>",
              "smithy.api#required": {}
            }
          },
          "Issuer": {
            "target": "com.amazonaws.licensemanager#Issuer",
            "traits": {
              "smithy.api#documentation": "<p>License issuer.</p>",
              "smithy.api#required": {}
            }
          },
          "HomeRegion": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Home Region for the license.</p>",
              "smithy.api#required": {}

  }
          },
          "Validity": {
```

```
            "target": "com.amazonaws.licensemanager#DatetimeRange",
            "traits": {
              "smithy.api#documentation": "<p>Date and time range during which the license is valid, in ISO8601-UTC format.</p>",
              "smithy.api#required": {}
            }
          },
          "Entitlements": {
            "target": "com.amazonaws.licensemanager#EntitlementList",
            "traits": {
              "smithy.api#documentation": "<p>License entitlements.</p>",
              "smithy.api#required": {}
            }
          },
          "Beneficiary": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>License beneficiary.</p>",
              "smithy.api#required": {}
            }
          },
          "ConsumptionConfiguration": {
            "target": "com.amazonaws.licensemanager#ConsumptionConfiguration",
            "traits": {
              "smithy.api#documentation": "<p>Configuration for consumption of the license. Choose a provisional configuration for workloads\n running with continuous connectivity. Choose a borrow configuration for workloads with offline\n usage.</p>",
              "smithy.api#required": {}
            }
          },
          "LicenseMetadata": {
            "target": "com.amazonaws.licensemanager#MetadataList",
            "traits": {
              "smithy.api#documentation": "<p>Information about the license.</p>"
            }
          },
          "ClientToken": {
            "target": "com.amazonaws.licensemanager#ClientToken",
            "traits": {
              "smithy.api#documentation": "<p>Unique, case-sensitive identifier that you provide to ensure the idempotency of the request.</p>",
              "smithy.api#required": {}
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
```

```
},
"com.amazonaws.licensemanager#CreateLicenseResponse": {
   "type": "structure",
   "members": {
      "LicenseArn": {
         "target": "com.amazonaws.licensemanager#Arn",
         "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>"
         }
      },
      "Status": {
         "target": "com.amazonaws.licensemanager#LicenseStatus",
         "traits": {
            "smithy.api#documentation": "<p>License status.</p>"
         }
      },
      "Version": {
          "target": "com.amazonaws.licensemanager#String",
         "traits": {
            "smithy.api#documentation": "<p>License version.</p>"
         }
      }
   },
   "traits": {
      "smithy.api#output": {}
   }
},
"com.amazonaws.licensemanager#CreateLicenseVersion": {
   "type": "operation",
   "input": {
      "target": "com.amazonaws.licensemanager#CreateLicenseVersionRequest"
   },
   "output": {
      "target": "com.amazonaws.licensemanager#CreateLicenseVersionResponse"
   },
   "errors": [
      {
         "target": "com.amazonaws.licensemanager#AccessDeniedException"
      },
      {
         "target": "com.amazonaws.licensemanager#AuthorizationException"
      },
      {
         "target": "com.amazonaws.licensemanager#ConflictException"
       },
      {
         "target": "com.amazonaws.licensemanager#RateLimitExceededException"
      },
```

```
            {
                "target": "com.amazonaws.licensemanager#RedirectException"
            },
            {
                "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Creates a new version of the specified license.</p>"
        }
    },
    "com.amazonaws.licensemanager#CreateLicenseVersionRequest": {
        "type": "structure",
        "members": {
            "LicenseArn": {
                "target":
"com.amazonaws.licensemanager#Arn",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>",
                    "smithy.api#required": {}
                }
            },
            "LicenseName": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>License name.</p>",
                    "smithy.api#required": {}
                }
            },
            "ProductName": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Product name.</p>",
                    "smithy.api#required": {}
                }
            },
            "Issuer": {
                "target": "com.amazonaws.licensemanager#Issuer",
                "traits":
{
                    "smithy.api#documentation": "<p>License issuer.</p>",
                    "smithy.api#required": {}
```

```
            }
        },
        "HomeRegion": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Home Region of the license.</p>",
                "smithy.api#required": {}
            }
        },
        "Validity": {
            "target": "com.amazonaws.licensemanager#DatetimeRange",
            "traits": {
                "smithy.api#documentation": "<p>Date and time range during which the license is valid, in ISO8601-
UTC format.</p>",
                "smithy.api#required": {}
            }
        },
        "LicenseMetadata": {
            "target": "com.amazonaws.licensemanager#MetadataList",
            "traits": {
                "smithy.api#documentation": "<p>Information about the license.</p>"
            }
        },
        "Entitlements": {
            "target": "com.amazonaws.licensemanager#EntitlementList",
            "traits": {
                "smithy.api#documentation": "<p>License entitlements.</p>",
                "smithy.api#required": {}
            }
        },
        "ConsumptionConfiguration": {
            "target": "com.amazonaws.licensemanager#ConsumptionConfiguration",
            "traits": {
                "smithy.api#documentation": "<p>Configuration for consumption of the license. Choose a provisional
configuration for workloads\n          running with continuous connectivity. Choose a borrow configuration for
workloads with offline\n          usage.</p>",
                "smithy.api#required": {}
            }
        },

    "Status": {
            "target": "com.amazonaws.licensemanager#LicenseStatus",
            "traits": {
                "smithy.api#documentation": "<p>License status.</p>",
                "smithy.api#required": {}
            }
        },
        "ClientToken": {
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```
            "target": "com.amazonaws.licensemanager#ClientToken",
            "traits": {
              "smithy.api#documentation": "<p>Unique, case-sensitive identifier that you provide to ensure the
idempotency of the request.</p>",
              "smithy.api#required": {}
            }
          },
          "SourceVersion": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Current version of the license.</p>"
            }
          }
        },
        "traits": {

 "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#CreateLicenseVersionResponse": {
        "type": "structure",
        "members": {
          "LicenseArn": {
            "target": "com.amazonaws.licensemanager#Arn",
            "traits": {
              "smithy.api#documentation": "<p>License ARN.</p>"
            }
          },
          "Version": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>New version of the license.</p>"
            }
          },
          "Status": {
            "target": "com.amazonaws.licensemanager#LicenseStatus",
            "traits": {
              "smithy.api#documentation": "<p>License status.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output":
{}
        }
      },
      "com.amazonaws.licensemanager#CreateToken": {
        "type": "operation",
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```
        "input": {
          "target": "com.amazonaws.licensemanager#CreateTokenRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#CreateTokenResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#RedirectException"
          },
          {
            "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
          },

      {
            "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          },
          {
            "target": "com.amazonaws.licensemanager#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Creates a long-lived token.</p>\n          <p>A refresh token is a JWT token used to get an access token. With an access token,\n          you can call AssumeRoleWithWebIdentity to get role credentials that you can use to \n          call License Manager to manage the specified license.</p>"
        }
      },
      "com.amazonaws.licensemanager#CreateTokenRequest": {
        "type": "structure",
        "members": {
          "LicenseArn": {
            "target": "com.amazonaws.licensemanager#Arn",
            "traits":
 {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license. The ARN is mapped to the aud claim of the\n          JWT token.</p>",
```

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                "smithy.api#required": {}
              }
            },
            "RoleArns": {
              "target": "com.amazonaws.licensemanager#ArnList",
              "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the IAM roles to embed in the token. \n        License Manager does not check whether the roles are in use.</p>"
              }
            },
            "ExpirationInDays": {
              "target": "com.amazonaws.licensemanager#Integer",
              "traits": {
                "smithy.api#documentation": "<p>Token expiration, in days, counted from token creation. The default is 365 days.</p>"
              }
            },
            "TokenProperties": {
               "target": "com.amazonaws.licensemanager#MaxSize3StringList",
              "traits": {
                "smithy.api#documentation": "<p>Data specified by the caller to be included in the JWT token. The data is mapped\n          to the amr claim of the JWT token.</p>"
              }
            },
            "ClientToken": {
              "target": "com.amazonaws.licensemanager#ClientToken",
              "traits": {
                "smithy.api#documentation": "<p>Idempotency token, valid for 10 minutes.</p>",
                "smithy.api#required": {}
              }
            }
          },
          "traits": {
            "smithy.api#input": {}
          }
        },
        "com.amazonaws.licensemanager#CreateTokenResponse": {
          "type": "structure",
          "members": {
            "TokenId": {
              "target": "com.amazonaws.licensemanager#String",

             "traits": {
                "smithy.api#documentation": "<p>Token ID.</p>"
              }
            },
            "TokenType": {
              "target": "com.amazonaws.licensemanager#TokenType",
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```
            "traits": {
                "smithy.api#documentation": "<p>Token type.</p>"
            }
        },
        "Token": {
            "target": "com.amazonaws.licensemanager#TokenString",
            "traits": {
                "smithy.api#documentation": "<p>Refresh token, encoded as a JWT token.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#output": {}
    }
},
"com.amazonaws.licensemanager#DateTime": {
    "type": "timestamp"
},
"com.amazonaws.licensemanager#DatetimeRange": {
    "type": "structure",
    "members": {
        "Begin": {
            "target": "com.amazonaws.licensemanager#ISO8601DateTime",
            "traits": {
                "smithy.api#documentation": "<p>Start of the time range.</p>",
                "smithy.api#required": {}
            }
        },
        "End": {
            "target": "com.amazonaws.licensemanager#ISO8601DateTime",
            "traits": {
                "smithy.api#documentation": "<p>End of the time range.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#documentation": "<p>Describes a time range, in ISO8601-UTC format.</p>"
    }
},
"com.amazonaws.licensemanager#DeleteGrant": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanager#DeleteGrantRequest"
    },
    "output": {
        "target": "com.amazonaws.licensemanager#DeleteGrantResponse"
    },
    "errors": [
```

```
            {
              "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
              "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
              "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
              "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
              "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
              "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
              "target": "com.amazonaws.licensemanager#ValidationException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Deletes
the specified grant.</p>"
          }
        },
        "com.amazonaws.licensemanager#DeleteGrantRequest": {
          "type": "structure",
          "members": {
            "GrantArn": {
              "target": "com.amazonaws.licensemanager#Arn",
              "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the grant.</p>",
                "smithy.api#required": {}
              }
            },
            "StatusReason": {
              "target": "com.amazonaws.licensemanager#StatusReasonMessage",
              "traits": {
                "smithy.api#documentation": "<p>The Status reason for the delete request.</p>"
              }
            },
            "Version": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Current version of the
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grant.</p>",
                    "smithy.api#required": {}
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#DeleteGrantResponse": {
        "type": "structure",
        "members": {
            "GrantArn": {
                "target": "com.amazonaws.licensemanager#Arn",
                "traits": {
                    "smithy.api#documentation": "<p>Grant ARN.</p>"
                }
            },
            "Status": {
                "target": "com.amazonaws.licensemanager#GrantStatus",
                "traits": {
                    "smithy.api#documentation": "<p>Grant status.</p>"
                }
            },
            "Version": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation":
"<p>Grant version.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#DeleteLicense": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#DeleteLicenseRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#DeleteLicenseResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
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            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#ConflictException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"

},
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#RedirectException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Deletes the specified license.</p>"
        }
    },
    "com.amazonaws.licensemanager#DeleteLicenseConfiguration": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#DeleteLicenseConfigurationRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#DeleteLicenseConfigurationResponse"
        },

    "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
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            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Deletes the specified license configuration.</p>\n        <p>You cannot delete a license configuration that is in use.</p>"
        }
    },
    "com.amazonaws.licensemanager#DeleteLicenseConfigurationRequest": {
        "type": "structure",
        "members":
{
            "LicenseConfigurationArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>ID of the license configuration.</p>",
                    "smithy.api#required": {}
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#DeleteLicenseConfigurationResponse": {
        "type": "structure",
        "members": {},
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#DeleteLicenseManagerReportGenerator": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#DeleteLicenseManagerReportGeneratorRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#DeleteLicenseManagerReportGeneratorResponse"
         },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
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            {
               "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
               "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
               "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
               "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
            },
            {
               "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
               "target": "com.amazonaws.licensemanager#ValidationException"
             }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Deletes the specified report generator.</p>\n         <p>This action deletes the report generator, which stops it from generating future reports.\n         The action cannot be reversed. It has no effect on the previous reports from this generator.</p>"
         }
      },
      "com.amazonaws.licensemanager#DeleteLicenseManagerReportGeneratorRequest": {
         "type": "structure",
         "members": {
            "LicenseManagerReportGeneratorArn": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the report generator to be deleted.</p>",
                  "smithy.api#required": {}
               }
            }
         },
         "traits": {

  "smithy.api#input": {}
         }
      },
      "com.amazonaws.licensemanager#DeleteLicenseManagerReportGeneratorResponse": {
         "type": "structure",
         "members": {},
         "traits": {
            "smithy.api#output": {}
         }
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    },
    "com.amazonaws.licensemanager#DeleteLicenseRequest": {
      "type": "structure",
      "members": {
        "LicenseArn": {
          "target": "com.amazonaws.licensemanager#Arn",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>",
            "smithy.api#required": {}
          }
        },
        "SourceVersion": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Current version of the license.</p>",
            "smithy.api#required":
{}
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#DeleteLicenseResponse": {
      "type": "structure",
      "members": {
        "Status": {
          "target": "com.amazonaws.licensemanager#LicenseDeletionStatus",
          "traits": {
            "smithy.api#documentation": "<p>License status.</p>"
          }
        },
        "DeletionDate": {
          "target": "com.amazonaws.licensemanager#ISO8601DateTime",
          "traits": {
            "smithy.api#documentation": "<p>Date when the license is deleted.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanager#DeleteToken": {
      "type": "operation",
       "input": {
        "target": "com.amazonaws.licensemanager#DeleteTokenRequest"
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    },
    "output": {
      "target": "com.amazonaws.licensemanager#DeleteTokenResponse"
    },
    "errors": [
      {
        "target": "com.amazonaws.licensemanager#AccessDeniedException"
      },
      {
        "target": "com.amazonaws.licensemanager#AuthorizationException"
      },
      {
        "target": "com.amazonaws.licensemanager#RateLimitExceededException"
      },
      {
        "target": "com.amazonaws.licensemanager#RedirectException"
      },
      {
        "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
      },
      {
        "target": "com.amazonaws.licensemanager#ServerInternalException"
      },

  {
        "target": "com.amazonaws.licensemanager#ValidationException"
      }
    ],
    "traits": {
      "smithy.api#documentation": "<p>Deletes the specified token. Must be called in the license home
Region.</p>"
    }
  },
  "com.amazonaws.licensemanager#DeleteTokenRequest": {
    "type": "structure",
    "members": {
      "TokenId": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>Token ID.</p>",
          "smithy.api#required": {}
        }
      }
    },
    "traits": {
      "smithy.api#input": {}
    }
  },
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    "com.amazonaws.licensemanager#DeleteTokenResponse": {
      "type": "structure",
      "members": {},
      "traits": {
        "smithy.api#output": {}

      }
    },
    "com.amazonaws.licensemanager#DigitalSignatureMethod": {
      "type": "enum",
      "members": {
        "JWT_PS384": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "JWT_PS384"
          }
        }
      }
    },
    "com.amazonaws.licensemanager#Entitlement": {
      "type": "structure",
      "members": {
        "Name": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Entitlement name.</p>",
            "smithy.api#required": {}
          }
        },
        "Value": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Entitlement resource. Use only
if the unit is None.</p>"
          }
        },
        "MaxCount": {
          "target": "com.amazonaws.licensemanager#Long",
          "traits": {
            "smithy.api#documentation": "<p>Maximum entitlement count. Use if the unit is not None.</p>"
          }
        },
        "Overage": {
          "target": "com.amazonaws.licensemanager#BoxBoolean",
          "traits": {
            "smithy.api#documentation": "<p>Indicates whether overages are allowed.</p>"
          }
        },
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            "Unit": {
                "target": "com.amazonaws.licensemanager#EntitlementUnit",
                "traits": {
                    "smithy.api#documentation": "<p>Entitlement unit.</p>",
                    "smithy.api#required": {}
                }
            },
            "AllowCheckIn": {
                "target":
"com.amazonaws.licensemanager#BoxBoolean",
                "traits": {
                    "smithy.api#documentation": "<p>Indicates whether check-ins are allowed.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>Describes a resource entitled for use with a license.</p>"
        }
    },
    "com.amazonaws.licensemanager#EntitlementData": {
        "type": "structure",
        "members": {
            "Name": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Entitlement data name.</p>",
                    "smithy.api#required": {}
                }
            },
            "Value": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Entitlement
data value.</p>"
                }
            },
            "Unit": {
                "target": "com.amazonaws.licensemanager#EntitlementDataUnit",
                "traits": {
                    "smithy.api#documentation": "<p>Entitlement data unit.</p>",
                    "smithy.api#required": {}
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>Data associated with an entitlement resource.</p>"
        }
    },
```

```
    "com.amazonaws.licensemanager#EntitlementDataList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanager#EntitlementData"
      }
    },
    "com.amazonaws.licensemanager#EntitlementDataUnit": {
      "type": "enum",
      "members": {
        "COUNT": {
          "target": "smithy.api#Unit",
          "traits": {

"smithy.api#enumValue": "Count"
          }
        },
        "NONE": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "None"
          }
        },
        "SECONDS": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Seconds"
          }
        },
        "MICROSECONDS": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Microseconds"
          }
        },
        "MILLISECONDS": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Milliseconds"
          }
        },
        "BYTES": {
          "target": "smithy.api#Unit",
           "traits": {
            "smithy.api#enumValue": "Bytes"
          }
        },
        "KILOBYTES": {
          "target": "smithy.api#Unit",
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            "traits": {
                "smithy.api#enumValue": "Kilobytes"
            }
        },
        "MEGABYTES": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Megabytes"
            }
        },
        "GIGABYTES": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Gigabytes"
            }
        },
        "TERABYTES": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Terabytes"
            }
        },
        "BITS":
{
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Bits"
            }
        },
        "KILOBITS": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Kilobits"
            }
        },
        "MEGABITS": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Megabits"
            }
        },
        "GIGABITS": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Gigabits"
            }
        },
        "TERABITS": {
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            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Terabits"

    }
        },
        "PERCENT": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Percent"
            }
        },
        "BYTES_PER_SECOND": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Bytes/Second"
            }
        },
        "KILOBYTES_PER_SECOND": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Kilobytes/Second"
            }
        },
        "MEGABYTES_PER_SECOND": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Megabytes/Second"
            }
        },
        "GIGABYTES_PER_SECOND": {
            "target": "smithy.api#Unit",
             "traits": {
                "smithy.api#enumValue": "Gigabytes/Second"
            }
        },
        "TERABYTES_PER_SECOND": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Terabytes/Second"
            }
        },
        "BITS_PER_SECOND": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Bits/Second"
            }
        },
```

```
            "KILOBITS_PER_SECOND": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "Kilobits/Second"
               }
            },
            "MEGABITS_PER_SECOND": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue":
"Megabits/Second"
               }
            },
            "GIGABITS_PER_SECOND": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "Gigabits/Second"
               }
            },
            "TERABITS_PER_SECOND": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "Terabits/Second"
               }
            },
            "COUNT_PER_SECOND": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "Count/Second"
               }
            }
         }
      },
      "com.amazonaws.licensemanager#EntitlementList": {
         "type": "list",
         "member": {
            "target": "com.amazonaws.licensemanager#Entitlement"
         }
      },
      "com.amazonaws.licensemanager#EntitlementNotAllowedException":
{
         "type": "structure",
         "members": {
            "Message": {
               "target": "com.amazonaws.licensemanager#Message"
            }
         },
         "traits": {
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            "smithy.api#documentation": "<p>The entitlement is not allowed.</p>",
            "smithy.api#error": "client",
            "smithy.api#httpError": 400
        }
    },
    "com.amazonaws.licensemanager#EntitlementUnit": {
        "type": "enum",
        "members": {
            "COUNT": {
                "target": "smithy.api#Unit",
                "traits": {
                    "smithy.api#enumValue": "Count"
                }
            },
            "NONE": {
                "target": "smithy.api#Unit",
                "traits": {
                    "smithy.api#enumValue": "None"
                }
            },
            "SECONDS":
{
                "target": "smithy.api#Unit",
                "traits": {
                    "smithy.api#enumValue": "Seconds"
                }
            },
            "MICROSECONDS": {
                "target": "smithy.api#Unit",
                "traits": {
                    "smithy.api#enumValue": "Microseconds"
                }
            },
            "MILLISECONDS": {
                "target": "smithy.api#Unit",
                "traits": {
                    "smithy.api#enumValue": "Milliseconds"
                }
            },
            "BYTES": {
                "target": "smithy.api#Unit",
                "traits": {
                    "smithy.api#enumValue": "Bytes"
                }
            },
            "KILOBYTES": {
                "target": "smithy.api#Unit",
                "traits": {
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        "smithy.api#enumValue": "Kilobytes"
      }
    },
    "MEGABYTES": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "Megabytes"
      }
    },
    "GIGABYTES": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "Gigabytes"
      }
    },
    "TERABYTES": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "Terabytes"
      }
    },
    "BITS": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "Bits"
      }
    },
    "KILOBITS": {
      "target": "smithy.api#Unit",
      "traits": {

       "smithy.api#enumValue": "Kilobits"
      }
    },
    "MEGABITS": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "Megabits"
      }
    },
    "GIGABITS": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "Gigabits"
      }
    },
    "TERABITS": {
      "target": "smithy.api#Unit",
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            "traits": {
                "smithy.api#enumValue": "Terabits"
            }
        },
        "PERCENT": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Percent"
            }
        },
        "BYTES_PER_SECOND": {
            "target":
"smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Bytes/Second"
            }
        },
        "KILOBYTES_PER_SECOND": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Kilobytes/Second"
            }
        },
        "MEGABYTES_PER_SECOND": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Megabytes/Second"
            }
        },
        "GIGABYTES_PER_SECOND": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Gigabytes/Second"
            }
        },
        "TERABYTES_PER_SECOND": {
            "target": "smithy.api#Unit",
            "traits": {

"smithy.api#enumValue": "Terabytes/Second"
            }
        },
        "BITS_PER_SECOND": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Bits/Second"
            }
        },
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        "KILOBITS_PER_SECOND": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Kilobits/Second"
          }
        },
        "MEGABITS_PER_SECOND": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Megabits/Second"
          }
        },
        "GIGABITS_PER_SECOND": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Gigabits/Second"
          }
        },

    "TERABITS_PER_SECOND": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Terabits/Second"
          }
        },
        "COUNT_PER_SECOND": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Count/Second"
          }
        }
      }
    },
    "com.amazonaws.licensemanager#EntitlementUsage": {
      "type": "structure",
      "members": {
        "Name": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Entitlement usage name.</p>",
            "smithy.api#required": {}
          }
        },
        "ConsumedValue": {
          "target": "com.amazonaws.licensemanager#String",

        "traits": {
            "smithy.api#documentation": "<p>Resource usage consumed.</p>",
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```
            "smithy.api#required": {}
          }
        },
        "MaxCount": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Maximum entitlement usage count.</p>"
          }
        },
        "Unit": {
          "target": "com.amazonaws.licensemanager#EntitlementDataUnit",
          "traits": {
            "smithy.api#documentation": "<p>Entitlement usage unit.</p>",
            "smithy.api#required": {}
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>Usage associated with an entitlement resource.</p>"
      }
    },
    "com.amazonaws.licensemanager#EntitlementUsageList":
{
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanager#EntitlementUsage"
      }
    },
    "com.amazonaws.licensemanager#ExtendLicenseConsumption": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#ExtendLicenseConsumptionRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#ExtendLicenseConsumptionResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
```

```
        },
        {
          "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
          "target": "com.amazonaws.licensemanager#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Extends the expiration date for license consumption.</p>"
      }
    },
    "com.amazonaws.licensemanager#ExtendLicenseConsumptionRequest": {
      "type": "structure",
      "members": {
        "LicenseConsumptionToken": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>License consumption token.</p>",
            "smithy.api#required": {}

    }
        },
        "DryRun": {
          "target": "com.amazonaws.licensemanager#Boolean",
          "traits": {
            "smithy.api#default": false,
            "smithy.api#documentation": "<p>Checks whether you have the required permissions for the action,
without actually making the request. Provides an error response if you do not have the required permissions.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#ExtendLicenseConsumptionResponse": {
      "type": "structure",
      "members": {
        "LicenseConsumptionToken": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>License consumption token.</p>"
          }
        },
```

```
            "Expiration": {
               "target": "com.amazonaws.licensemanager#ISO8601DateTime",
               "traits": {
                  "smithy.api#documentation": "<p>Date and time at which the license consumption expires.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#output": {}
         }
      },
      "com.amazonaws.licensemanager#FailedDependencyException": {
         "type": "structure",
         "members": {
            "Message": {
               "target": "com.amazonaws.licensemanager#Message"
            },
            "ErrorCode": {
               "target": "com.amazonaws.licensemanager#String"
            }
         },
         "traits": {
            "aws.protocols#awsQueryError": {
               "code": "FailedDependency",
               "httpResponseCode": 424
            },
            "smithy.api#documentation":
"<p>A dependency required to run the API is missing.</p>",
            "smithy.api#error": "client",
            "smithy.api#httpError": 424
         }
      },
      "com.amazonaws.licensemanager#Filter": {
         "type": "structure",
         "members": {
            "Name": {
               "target": "com.amazonaws.licensemanager#FilterName",
               "traits": {
                  "smithy.api#documentation": "<p>Name of the filter. Filter names are case-sensitive.</p>"
               }
            },
            "Values": {
               "target": "com.amazonaws.licensemanager#FilterValues",
               "traits": {
                  "smithy.api#documentation": "<p>The value of the filter, which is case-sensitive. You can only
specify one value for the filter.</p>"
               }
```

```
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>A filter
 name and value pair that is used to return more specific results from a\n          describe operation. Filters can be used
to match a set of resources by specific criteria,\n          such as tags, attributes, or IDs.</p>"
        }
    },
    "com.amazonaws.licensemanager#FilterLimitExceededException": {
        "type": "structure",
        "members": {
            "Message": {
                "target": "com.amazonaws.licensemanager#Message"
            }
        },
        "traits": {
            "aws.protocols#awsQueryError": {
                "code": "FilterLimitExceeded",
                "httpResponseCode": 400
            },
            "smithy.api#documentation": "<p>The request uses too many filters or too many filter values.</p>",
            "smithy.api#error": "client",
            "smithy.api#httpError": 400
        }
    },
    "com.amazonaws.licensemanager#FilterList": {
        "type": "list",
         "member": {
            "target": "com.amazonaws.licensemanager#Filter"
        }
    },
    "com.amazonaws.licensemanager#FilterName": {
        "type": "string"
    },
    "com.amazonaws.licensemanager#FilterValue": {
        "type": "string"
    },
    "com.amazonaws.licensemanager#FilterValues": {
        "type": "list",
        "member": {
            "target": "com.amazonaws.licensemanager#FilterValue",
            "traits": {
                "smithy.api#xmlName": "item"
            }
        }
    },
    "com.amazonaws.licensemanager#Filters": {
        "type": "list",
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      "member": {
        "target": "com.amazonaws.licensemanager#Filter",
        "traits": {
          "smithy.api#xmlName": "item"
        }
      }
    },
    "com.amazonaws.licensemanager#GetAccessToken": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#GetAccessTokenRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#GetAccessTokenResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
          "target": "com.amazonaws.licensemanager#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Gets a temporary access token to use with
AssumeRoleWithWebIdentity. Access
 tokens\n        are valid for one hour.</p>"
      }
    },
    "com.amazonaws.licensemanager#GetAccessTokenRequest": {
      "type": "structure",
      "members": {
        "Token": {
          "target": "com.amazonaws.licensemanager#TokenString",
          "traits": {
            "smithy.api#documentation": "<p>Refresh token, encoded as a JWT token.</p>",
            "smithy.api#required": {}
          }
        },
```

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            "TokenProperties": {
               "target": "com.amazonaws.licensemanager#MaxSize3StringList",
               "traits": {
                  "smithy.api#documentation": "<p>Token properties to validate against those present in the JWT
token.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#input": {}
         }
      },
      "com.amazonaws.licensemanager#GetAccessTokenResponse":
{
         "type": "structure",
         "members": {
            "AccessToken": {
               "target": "com.amazonaws.licensemanager#TokenString",
               "traits": {
                  "smithy.api#documentation": "<p>Temporary access token.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#output": {}
         }
      },
      "com.amazonaws.licensemanager#GetGrant": {
         "type": "operation",
         "input": {
            "target": "com.amazonaws.licensemanager#GetGrantRequest"
         },
         "output": {
            "target": "com.amazonaws.licensemanager#GetGrantResponse"
         },
         "errors": [
            {
               "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
               "target": "com.amazonaws.licensemanager#AuthorizationException"

        },
            {
               "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
               "target": "com.amazonaws.licensemanager#RateLimitExceededException"
```

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        },
        {
            "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
        },
        {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
            "target": "com.amazonaws.licensemanager#ValidationException"
        }
    ],
    "traits": {
        "smithy.api#documentation": "<p>Gets detailed information about the specified grant.</p>"
    }
},
"com.amazonaws.licensemanager#GetGrantRequest": {
    "type": "structure",
    "members": {
        "GrantArn": {
            "target": "com.amazonaws.licensemanager#Arn",
             "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the grant.</p>",
                "smithy.api#required": {}
            }
        },
        "Version": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Grant version.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#input": {}
    }
},
"com.amazonaws.licensemanager#GetGrantResponse": {
    "type": "structure",
    "members": {
        "Grant": {
            "target": "com.amazonaws.licensemanager#Grant",
            "traits": {
                "smithy.api#documentation": "<p>Grant details.</p>"
            }
        }
    },
    "traits": {
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"smithy.api#output": {}
    }
},
"com.amazonaws.licensemanager#GetLicense": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanager#GetLicenseRequest"
    },
    "output": {
        "target": "com.amazonaws.licensemanager#GetLicenseResponse"
    },
    "errors": [
        {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
            "target": "com.amazonaws.licensemanager#ServerInternalException"

 },
        {
            "target": "com.amazonaws.licensemanager#ValidationException"
        }
    ],
    "traits": {
        "smithy.api#documentation": "<p>Gets detailed information about the specified license.</p>"
    }
},
"com.amazonaws.licensemanager#GetLicenseConfiguration": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanager#GetLicenseConfigurationRequest"
    },
    "output": {
        "target": "com.amazonaws.licensemanager#GetLicenseConfigurationResponse"
    },
    "errors": [
        {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
```

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            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
             },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Gets detailed information about the specified license
configuration.</p>"
        }
    },
    "com.amazonaws.licensemanager#GetLicenseConfigurationRequest": {
        "type": "structure",
        "members": {
            "LicenseConfigurationArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license
configuration.</p>",
                    "smithy.api#required": {}
                }
            }
        },
        "traits":
{
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#GetLicenseConfigurationResponse": {
        "type": "structure",
        "members": {
            "LicenseConfigurationId": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Unique ID for the license configuration.</p>"
                }
            },
            "LicenseConfigurationArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license configuration.</p>"
```

```
    }
  },
  "Name": {
    "target": "com.amazonaws.licensemanager#String",
    "traits": {
      "smithy.api#documentation": "<p>Name of the license configuration.</p>"
     }
  },
  "Description": {
    "target": "com.amazonaws.licensemanager#String",
    "traits": {
      "smithy.api#documentation": "<p>Description of the license configuration.</p>"
    }
  },
  "LicenseCountingType": {
    "target": "com.amazonaws.licensemanager#LicenseCountingType",
    "traits": {
      "smithy.api#documentation": "<p>Dimension for which the licenses are counted.</p>"
    }
  },
  "LicenseRules": {
    "target": "com.amazonaws.licensemanager#StringList",
    "traits": {
      "smithy.api#documentation": "<p>License rules.</p>"
    }
  },
  "LicenseCount": {
    "target": "com.amazonaws.licensemanager#BoxLong",

   "traits": {
      "smithy.api#documentation": "<p>Number of available licenses.</p>"
    }
  },
  "LicenseCountHardLimit": {
    "target": "com.amazonaws.licensemanager#BoxBoolean",
    "traits": {
      "smithy.api#documentation": "<p>Sets the number of available licenses as a hard limit.</p>"
    }
  },
  "ConsumedLicenses": {
    "target": "com.amazonaws.licensemanager#BoxLong",
    "traits": {
      "smithy.api#documentation": "<p>Number of licenses assigned to resources.</p>"
    }
  },
  "Status": {
    "target": "com.amazonaws.licensemanager#String",
    "traits": {
```

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            "smithy.api#documentation": "<p>License configuration status.</p>"
          }

      },
        "OwnerAccountId": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Account ID of the owner of the license configuration.</p>"
          }
        },
        "ConsumedLicenseSummaryList": {
          "target": "com.amazonaws.licensemanager#ConsumedLicenseSummaryList",
          "traits": {
            "smithy.api#documentation": "<p>Summaries of the licenses consumed by resources.</p>"
          }
        },
        "ManagedResourceSummaryList": {
          "target": "com.amazonaws.licensemanager#ManagedResourceSummaryList",
          "traits": {
            "smithy.api#documentation": "<p>Summaries of the managed resources.</p>"
          }
        },
        "Tags": {
          "target": "com.amazonaws.licensemanager#TagList",
           "traits": {
            "smithy.api#documentation": "<p>Tags for the license configuration.</p>"
          }
        },
        "ProductInformationList": {
          "target": "com.amazonaws.licensemanager#ProductInformationList",
          "traits": {
            "smithy.api#documentation": "<p>Product information.</p>"
          }
        },
        "AutomatedDiscoveryInformation": {
          "target": "com.amazonaws.licensemanager#AutomatedDiscoveryInformation",
          "traits": {
            "smithy.api#documentation": "<p>Automated discovery information.</p>"
          }
        },
        "DisassociateWhenNotFound": {
          "target": "com.amazonaws.licensemanager#BoxBoolean",
          "traits": {
            "smithy.api#documentation": "<p>When
true, disassociates a resource when software is uninstalled.</p>"
          }
        }
      },
```

```
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#GetLicenseConversionTask": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#GetLicenseConversionTaskRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#GetLicenseConversionTaskResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {

 "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Gets information about the specified license type conversion task.</p>"
        }
    },
    "com.amazonaws.licensemanager#GetLicenseConversionTaskRequest": {
        "type": "structure",
        "members": {
            "LicenseConversionTaskId": {
                "target": "com.amazonaws.licensemanager#LicenseConversionTaskId",
                "traits": {
                    "smithy.api#documentation": "<p>ID of the license type conversion task to retrieve information
on.</p>",
                    "smithy.api#required": {}
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
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        }
      },
      "com.amazonaws.licensemanager#GetLicenseConversionTaskResponse": {
        "type": "structure",
        "members": {
          "LicenseConversionTaskId": {
            "target": "com.amazonaws.licensemanager#LicenseConversionTaskId",
            "traits": {
              "smithy.api#documentation": "<p>ID of the license type conversion task.</p>"
            }
          },
          "ResourceArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Names (ARN) of the resources the license
conversion task is associated with.</p>"
            }
          },
          "SourceLicenseContext": {
            "target": "com.amazonaws.licensemanager#LicenseConversionContext",
            "traits": {
              "smithy.api#documentation": "<p>Information
 about the license type converted from.</p>"
            }
          },
          "DestinationLicenseContext": {
            "target": "com.amazonaws.licensemanager#LicenseConversionContext",
            "traits": {
              "smithy.api#documentation": "<p>Information about the license type converted to.</p>"
            }
          },
          "StatusMessage": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>The status message for the conversion task.</p>"
            }
          },
          "Status": {
            "target": "com.amazonaws.licensemanager#LicenseConversionTaskStatus",
            "traits": {
              "smithy.api#documentation": "<p>Status of the license type conversion task.</p>"
            }
          },

    "StartTime": {
            "target": "com.amazonaws.licensemanager#DateTime",
            "traits": {
              "smithy.api#documentation": "<p>Time at which the license type conversion task was started .</p>"
```

```
            }
          },
          "LicenseConversionTime": {
            "target": "com.amazonaws.licensemanager#DateTime",
            "traits": {
              "smithy.api#documentation": "<p>Amount of time to complete the license type conversion.</p>"
            }
          },
          "EndTime": {
            "target": "com.amazonaws.licensemanager#DateTime",
            "traits": {
              "smithy.api#documentation": "<p>Time at which the license type conversion task was
completed.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#GetLicenseManagerReportGenerator":
{
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#GetLicenseManagerReportGeneratorRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#GetLicenseManagerReportGeneratorResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"

        },
          {
            "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
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            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Gets information about the specified report generator.</p>"
        }
    },
    "com.amazonaws.licensemanager#GetLicenseManagerReportGeneratorRequest": {
        "type": "structure",
        "members": {
            "LicenseManagerReportGeneratorArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the report generator.</p>",
                    "smithy.api#required":
{}
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#GetLicenseManagerReportGeneratorResponse": {
        "type": "structure",
        "members": {
            "ReportGenerator": {
                "target": "com.amazonaws.licensemanager#ReportGenerator",
                "traits": {
                    "smithy.api#documentation": "<p>A report generator that creates periodic reports about your license
configurations.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#GetLicenseRequest": {
        "type": "structure",
        "members": {
            "LicenseArn": {
                "target": "com.amazonaws.licensemanager#Arn",
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            "traits": {

"smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>",
                "smithy.api#required": {}
            }
          },
          "Version": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>License version.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#GetLicenseResponse": {
        "type": "structure",
        "members": {
          "License": {
            "target": "com.amazonaws.licensemanager#License",
            "traits": {
              "smithy.api#documentation": "<p>License details.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },

    "com.amazonaws.licensemanager#GetLicenseUsage": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#GetLicenseUsageRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#GetLicenseUsageResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
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                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {

  "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Gets detailed information about the usage of the specified license.</p>"
        }
    },
    "com.amazonaws.licensemanager#GetLicenseUsageRequest": {
        "type": "structure",
        "members": {
            "LicenseArn": {
                "target": "com.amazonaws.licensemanager#Arn",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>",
                    "smithy.api#required": {}
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#GetLicenseUsageResponse": {
        "type": "structure",
        "members": {
            "LicenseUsage": {
                "target":
"com.amazonaws.licensemanager#LicenseUsage",
                "traits": {
                    "smithy.api#documentation": "<p>License usage details.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#GetServiceSettings": {
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```
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#GetServiceSettingsRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#GetServiceSettingsResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
             },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Gets the License Manager settings for the current Region.</p>"
        }
    },
    "com.amazonaws.licensemanager#GetServiceSettingsRequest": {
        "type": "structure",
        "members": {},
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#GetServiceSettingsResponse": {
        "type": "structure",
        "members": {
            "S3BucketArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Regional S3 bucket path for storing reports, license trail event data,
discovery data,\n        and so on.</p>"

  }
            },
            "SnsTopicArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>SNS topic configured to receive notifications from License
Manager.</p>"
```

```
            }
          },
          "OrganizationConfiguration": {
            "target": "com.amazonaws.licensemanager#OrganizationConfiguration",
            "traits": {
              "smithy.api#documentation": "<p>Indicates whether Organizations is integrated with License
Manager for\n        cross-account discovery.</p>"
            }
          },
          "EnableCrossAccountsDiscovery": {
            "target": "com.amazonaws.licensemanager#BoxBoolean",
            "traits": {
              "smithy.api#documentation": "<p>Indicates whether cross-account discovery is enabled.</p>"
            }

        },
          "LicenseManagerResourceShareArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the resource share. The License
Manager management account \n        provides member accounts with access to this share.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#Grant": {
        "type": "structure",
        "members": {
          "GrantArn": {
            "target": "com.amazonaws.licensemanager#Arn",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the grant.</p>",
              "smithy.api#required": {}
            }
          },
          "GrantName": {

 "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Grant name.</p>",
              "smithy.api#required": {}
            }
          },
          "ParentArn": {
            "target": "com.amazonaws.licensemanager#Arn",
```

```
            "traits": {
                "smithy.api#documentation": "<p>Parent ARN.</p>",
                "smithy.api#required": {}
            }
        },
        "LicenseArn": {
            "target": "com.amazonaws.licensemanager#Arn",
            "traits": {
                "smithy.api#documentation": "<p>License ARN.</p>",
                "smithy.api#required": {}
            }
        },
        "GranteePrincipalArn": {
            "target": "com.amazonaws.licensemanager#Arn",
            "traits": {

"smithy.api#documentation": "<p>The grantee principal ARN.</p>",
                "smithy.api#required": {}
            }
        },
        "HomeRegion": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Home Region of the grant.</p>",
                "smithy.api#required": {}
            }
        },
        "GrantStatus": {
            "target": "com.amazonaws.licensemanager#GrantStatus",
            "traits": {
                "smithy.api#documentation": "<p>Grant status.</p>",
                "smithy.api#required": {}
            }
        },
        "StatusReason": {
            "target": "com.amazonaws.licensemanager#StatusReasonMessage",
            "traits": {
                "smithy.api#documentation": "<p>Grant status reason.</p>"
             }
        },
        "Version": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Grant version.</p>",
                "smithy.api#required": {}
            }
        },
        "GrantedOperations": {
```

```
            "target": "com.amazonaws.licensemanager#AllowedOperationList",
            "traits": {
              "smithy.api#documentation": "<p>Granted operations.</p>",
              "smithy.api#required": {}
            }
          },
          "Options": {
            "target": "com.amazonaws.licensemanager#Options",
            "traits": {
              "smithy.api#documentation": "<p>The options specified for the grant.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation":
"<p>Describes a grant.</p>"
        }
      },
      "com.amazonaws.licensemanager#GrantList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#Grant"
        }
      },
      "com.amazonaws.licensemanager#GrantStatus": {
        "type": "enum",
        "members": {
          "PENDING_WORKFLOW": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "PENDING_WORKFLOW"
            }
          },
          "PENDING_ACCEPT": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "PENDING_ACCEPT"
            }
          },
          "REJECTED": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "REJECTED"

            }
          },
          "ACTIVE": {
            "target": "smithy.api#Unit",
```

```
            "traits": {
              "smithy.api#enumValue": "ACTIVE"
            }
          },
          "FAILED_WORKFLOW": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "FAILED_WORKFLOW"
            }
          },
          "DELETED": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "DELETED"
            }
          },
          "PENDING_DELETE": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "PENDING_DELETE"
            }
          },
          "DISABLED": {
            "target": "smithy.api#Unit",
            "traits":
{
              "smithy.api#enumValue": "DISABLED"
            }
          },
          "WORKFLOW_COMPLETED": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "WORKFLOW_COMPLETED"
            }
          }
        }
      },
      "com.amazonaws.licensemanager#GrantedLicense": {
        "type": "structure",
        "members": {
          "LicenseArn": {
            "target": "com.amazonaws.licensemanager#Arn",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>"
            }
          },
          "LicenseName": {
            "target": "com.amazonaws.licensemanager#String",
```

```
            "traits": {
                "smithy.api#documentation": "<p>License name.</p>"
            }

    },
        "ProductName": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Product name.</p>"
            }
        },
        "ProductSKU": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Product SKU.</p>"
            }
        },
        "Issuer": {
            "target": "com.amazonaws.licensemanager#IssuerDetails",
            "traits": {
                "smithy.api#documentation": "<p>Granted license issuer.</p>"
            }
        },
        "HomeRegion": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Home Region of the granted license.</p>"

            }
        },
        "Status": {
            "target": "com.amazonaws.licensemanager#LicenseStatus",
            "traits": {
                "smithy.api#documentation": "<p>Granted license status.</p>"
            }
        },
        "Validity": {
            "target": "com.amazonaws.licensemanager#DatetimeRange",
            "traits": {
                "smithy.api#documentation": "<p>Date and time range during which the granted license is valid, in
ISO8601-UTC format.</p>"
            }
        },
        "Beneficiary": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Granted license beneficiary.</p>"
            }
```

```
        },
        "Entitlements": {
          "target": "com.amazonaws.licensemanager#EntitlementList",
           "traits": {
             "smithy.api#documentation": "<p>License entitlements.</p>"
          }
        },
        "ConsumptionConfiguration": {
          "target": "com.amazonaws.licensemanager#ConsumptionConfiguration",
          "traits": {
             "smithy.api#documentation": "<p>Configuration for consumption of the license.</p>"
          }
        },
        "LicenseMetadata": {
          "target": "com.amazonaws.licensemanager#MetadataList",
          "traits": {
             "smithy.api#documentation": "<p>Granted license metadata.</p>"
          }
        },
        "CreateTime": {
          "target": "com.amazonaws.licensemanager#ISO8601DateTime",
          "traits": {
             "smithy.api#documentation": "<p>Creation time of the granted license.</p>"

}
        },
        "Version": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
             "smithy.api#documentation": "<p>Version of the granted license.</p>"
          }
        },
        "ReceivedMetadata": {
          "target": "com.amazonaws.licensemanager#ReceivedMetadata",
          "traits": {
             "smithy.api#documentation": "<p>Granted license received metadata.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>Describes a license that is granted to a grantee.</p>"
      }
    },
    "com.amazonaws.licensemanager#GrantedLicenseList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanager#GrantedLicense"
      }
```

```
    },
    "com.amazonaws.licensemanager#ISO8601DateTime":
{
        "type": "string",
        "traits": {
            "smithy.api#length": {
                "min": 0,
                "max": 50
            },
            "smithy.api#pattern": "^(-?(?:[1-9][0-9]*)?[0-9]{4})-(1[0-2]|0[1-9])-(3[0-1]|0[1-9]|[1-2][0-9])T(2[0-3]|[0-
1][0-9]):([0-5][0-9]):([0-5][0-9])(\\.[0-9]+)?(Z|[+-](?:2[ 0-3]|[0-1][0-9]):[0-5][0-9])+$"
        }
    },
    "com.amazonaws.licensemanager#Integer": {
        "type": "integer"
    },
    "com.amazonaws.licensemanager#InvalidParameterValueException": {
        "type": "structure",
        "members": {
            "Message": {
                "target": "com.amazonaws.licensemanager#Message"
            }
        },
        "traits": {
            "aws.protocols#awsQueryError": {
                "code": "InvalidParameterValueProvided",
                "httpResponseCode": 400
            },
            "smithy.api#documentation":
"<p>One or more parameter values are not valid.</p>",
            "smithy.api#error": "client",
            "smithy.api#httpError": 400
        }
    },
    "com.amazonaws.licensemanager#InvalidResourceStateException": {
        "type": "structure",
        "members": {
            "Message": {
                "target": "com.amazonaws.licensemanager#Message"
            }
        },
        "traits": {
            "aws.protocols#awsQueryError": {
                "code": "InvalidResourceState",
                "httpResponseCode": 400
            },
            "smithy.api#documentation": "<p>License Manager cannot allocate a license to a resource because of its
state. </p>\n         <p>For example, you cannot allocate a license to an instance in the process of shutting\n
```

```
down.</p>",
            "smithy.api#error": "client",
            "smithy.api#httpError": 400
        }
      },

    "com.amazonaws.licensemanager#InventoryFilter": {
        "type": "structure",
        "members": {
          "Name": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Name of the filter.</p>",
              "smithy.api#required": {}
            }
          },
          "Condition": {
            "target": "com.amazonaws.licensemanager#InventoryFilterCondition",
            "traits": {
              "smithy.api#documentation": "<p>Condition of the filter.</p>",
              "smithy.api#required": {}
            }
          },
          "Value": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Value of the filter.</p>"
            }
          }

    },
        "traits": {
          "smithy.api#documentation": "<p>An inventory filter.</p>"
        }
      },
     "com.amazonaws.licensemanager#InventoryFilterCondition": {
        "type": "enum",
        "members": {
          "EQUALS": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "EQUALS"
            }
          },
          "NOT_EQUALS": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "NOT_EQUALS"
```

```
            }
          },
          "BEGINS_WITH": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "BEGINS_WITH"
            }
          },
          "CONTAINS": {
            "target": "smithy.api#Unit",
            "traits": {
               "smithy.api#enumValue": "CONTAINS"
            }
          }
        }
      },
      "com.amazonaws.licensemanager#InventoryFilterList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#InventoryFilter"
        }
      },
      "com.amazonaws.licensemanager#Issuer": {
        "type": "structure",
        "members": {
          "Name": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Issuer name.</p>",
              "smithy.api#required": {}
            }
          },
          "SignKey": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Asymmetric KMS key from Key Management Service. The KMS
key must have a key usage
 of sign and verify, \n         and support the RSASSA-PSS SHA-256 signing algorithm.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Details about the issuer of a license.</p>"
        }
      },
      "com.amazonaws.licensemanager#IssuerDetails": {
        "type": "structure",
        "members": {
```

```
            "Name": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Issuer name.</p>"
              }
            },
            "SignKey": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Asymmetric KMS key from Key Management Service. The KMS key must have a key usage of sign and verify, \n          and support the RSASSA-PSS SHA-256 signing algorithm.</p>"
              }
            },
            "KeyFingerprint": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Issuer key fingerprint.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>Details associated with the issuer of a license.</p>"
          }
        },
        "com.amazonaws.licensemanager#License": {
          "type": "structure",
          "members": {
            "LicenseArn": {
              "target": "com.amazonaws.licensemanager#Arn",
              "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>"
              }
            },
            "LicenseName": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {

             "smithy.api#documentation": "<p>License name.</p>"
              }
            },
            "ProductName": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Product name.</p>"
              }
            },
            "ProductSKU": {
```

```
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Product SKU.</p>"
            }
          },
          "Issuer": {
            "target": "com.amazonaws.licensemanager#IssuerDetails",
            "traits": {
              "smithy.api#documentation": "<p>License issuer.</p>"
            }
          },
          "HomeRegion": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {

          "smithy.api#documentation": "<p>Home Region of the license.</p>"
            }
          },
          "Status": {
            "target": "com.amazonaws.licensemanager#LicenseStatus",
            "traits": {
              "smithy.api#documentation": "<p>License status.</p>"
            }
          },
          "Validity": {
            "target": "com.amazonaws.licensemanager#DatetimeRange",
            "traits": {
              "smithy.api#documentation": "<p>Date and time range during which the license is valid, in ISO8601-
UTC format.</p>"
            }
          },
          "Beneficiary": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>License beneficiary.</p>"
            }
          },
          "Entitlements": {

   "target": "com.amazonaws.licensemanager#EntitlementList",
            "traits": {
              "smithy.api#documentation": "<p>License entitlements.</p>"
            }
          },
          "ConsumptionConfiguration": {
            "target": "com.amazonaws.licensemanager#ConsumptionConfiguration",
            "traits": {
              "smithy.api#documentation": "<p>Configuration for consumption of the license.</p>"
```

```
            }
          },
          "LicenseMetadata": {
            "target": "com.amazonaws.licensemanager#MetadataList",
            "traits": {
              "smithy.api#documentation": "<p>License metadata.</p>"
            }
          },
          "CreateTime": {
            "target": "com.amazonaws.licensemanager#ISO8601DateTime",
            "traits": {
              "smithy.api#documentation": "<p>License
creation time.</p>"
            }
          },
          "Version": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>License version.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Software license that is managed in License Manager.</p>"
        }
      },
      "com.amazonaws.licensemanager#LicenseConfiguration": {
        "type": "structure",
        "members": {
          "LicenseConfigurationId": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Unique ID of the license configuration.</p>"
            }
          },
          "LicenseConfigurationArn": {
            "target": "com.amazonaws.licensemanager#String",
             "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license configuration.</p>"
            }
          },
          "Name": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Name of the license configuration.</p>"
            }
          },
          "Description": {
```

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            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Description of the license configuration.</p>"
            }
        },
        "LicenseCountingType": {
            "target": "com.amazonaws.licensemanager#LicenseCountingType",
            "traits": {
                "smithy.api#documentation": "<p>Dimension to use to track the license inventory.</p>"
             }
        },
        "LicenseRules": {
            "target": "com.amazonaws.licensemanager#StringList",
            "traits": {
                "smithy.api#documentation": "<p>License rules.</p>"
            }
        },
        "LicenseCount": {
            "target": "com.amazonaws.licensemanager#BoxLong",
            "traits": {
                "smithy.api#documentation": "<p>Number of licenses managed by the license configuration.</p>"
            }
        },
        "LicenseCountHardLimit": {
            "target": "com.amazonaws.licensemanager#BoxBoolean",
            "traits": {
                "smithy.api#documentation": "<p>Number of available licenses as a hard limit.</p>"
            }
        },
        "DisassociateWhenNotFound": {
            "target": "com.amazonaws.licensemanager#BoxBoolean",
             "traits": {
                "smithy.api#documentation": "<p>When true, disassociates a resource when software is
uninstalled.</p>"
            }
        },
        "ConsumedLicenses": {
            "target": "com.amazonaws.licensemanager#BoxLong",
            "traits": {
                "smithy.api#documentation": "<p>Number of licenses consumed. </p>"
            }
        },
        "Status": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Status of the license configuration.</p>"
            }
        },
```

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            "OwnerAccountId": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Account ID of the license configuration's owner.</p>"

                }
            },
            "ConsumedLicenseSummaryList": {
                "target": "com.amazonaws.licensemanager#ConsumedLicenseSummaryList",
                "traits": {
                    "smithy.api#documentation": "<p>Summaries for licenses consumed by various resources.</p>"
                }
            },
            "ManagedResourceSummaryList": {
                "target": "com.amazonaws.licensemanager#ManagedResourceSummaryList",
                "traits": {
                    "smithy.api#documentation": "<p>Summaries for managed resources.</p>"
                }
            },
            "ProductInformationList": {
                "target": "com.amazonaws.licensemanager#ProductInformationList",
                "traits": {
                    "smithy.api#documentation": "<p>Product information.</p>"
                }
            },
            "AutomatedDiscoveryInformation": {

                "target": "com.amazonaws.licensemanager#AutomatedDiscoveryInformation",
                "traits": {
                    "smithy.api#documentation": "<p>Automated discovery information.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>A license configuration is an abstraction of a customer license agreement that can be\n            consumed and enforced by License Manager. Components include specifications for the license\n            type (licensing by instance, socket, CPU, or vCPU), allowed tenancy (shared tenancy, \n Dedicated Instance, Dedicated Host, or all of these), host affinity (how long a VM\n            must be associated with a host), and the number of licenses purchased and used.</p>"
        }
    },
    "com.amazonaws.licensemanager#LicenseConfigurationAssociation": {
        "type": "structure",
        "members": {
            "ResourceArn":
{
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
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```
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the resource.</p>"
              }
            },
            "ResourceType": {
              "target": "com.amazonaws.licensemanager#ResourceType",
              "traits": {
                "smithy.api#documentation": "<p>Type of server resource.</p>"
              }
            },
            "ResourceOwnerId": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>ID of the Amazon Web Services account that owns the resource consuming licenses.</p>"
              }
            },
            "AssociationTime": {
              "target": "com.amazonaws.licensemanager#DateTime",
              "traits": {

    "smithy.api#documentation": "<p>Time when the license configuration was associated with the resource.</p>"
              }
            },
            "AmiAssociationScope": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Scope of AMI associations. The possible value is <code>cross-account</code>.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>Describes an association with a license configuration.</p>"
          }
        },
        "com.amazonaws.licensemanager#LicenseConfigurationAssociations": {
          "type": "list",
          "member": {
            "target": "com.amazonaws.licensemanager#LicenseConfigurationAssociation"
          }
        },
        "com.amazonaws.licensemanager#LicenseConfigurationStatus": {
          "type": "enum",
          "members":
 {
            "AVAILABLE": {
              "target": "smithy.api#Unit",
              "traits": {
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                "smithy.api#enumValue": "AVAILABLE"
              }
            },
            "DISABLED": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "DISABLED"
              }
            }
          }
        },
        "com.amazonaws.licensemanager#LicenseConfigurationUsage": {
          "type": "structure",
          "members": {
            "ResourceArn": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the resource.</p>"
              }
            },
            "ResourceType": {
              "target": "com.amazonaws.licensemanager#ResourceType",
              "traits":
{
                "smithy.api#documentation": "<p>Type of resource.</p>"
              }
            },
            "ResourceStatus": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Status of the resource.</p>"
              }
            },
            "ResourceOwnerId": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>ID of the account that owns the resource.</p>"
              }
            },
            "AssociationTime": {
              "target": "com.amazonaws.licensemanager#DateTime",
              "traits": {
                "smithy.api#documentation": "<p>Time when the license configuration was initially associated with
the resource.</p>"
              }
            },
```

```
    "ConsumedLicenses": {
            "target": "com.amazonaws.licensemanager#BoxLong",
            "traits": {
              "smithy.api#documentation": "<p>Number of licenses consumed by the resource.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Details about the usage of a resource associated with a license
configuration.</p>"
        }
      },
      "com.amazonaws.licensemanager#LicenseConfigurationUsageList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#LicenseConfigurationUsage"
        }
      },
      "com.amazonaws.licensemanager#LicenseConfigurations": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#LicenseConfiguration"
        }
      },
      "com.amazonaws.licensemanager#LicenseConversionContext": {

    "type": "structure",
        "members": {
          "UsageOperation": {
            "target": "com.amazonaws.licensemanager#UsageOperation",
            "traits": {
              "smithy.api#documentation": "<p>The Usage operation value that corresponds to the license type you
are converting your resource from.  For more information about which platforms correspond to which usage
operation values see <a href=\"https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/billing-info-
fields.html#billing-info\">Sample data: usage operation by platform\n      </a>\n        </p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Information about a license type conversion task.</p>"
        }
      },
      "com.amazonaws.licensemanager#LicenseConversionTask": {
        "type": "structure",
        "members": {
          "LicenseConversionTaskId": {
```

```
        "target": "com.amazonaws.licensemanager#LicenseConversionTaskId",
            "traits": {
              "smithy.api#documentation": "<p>The ID of the license type conversion task.</p>"
            }
          },
          "ResourceArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the resource associated
with the license type\n         conversion task.</p>"
            }
          },
          "SourceLicenseContext": {
            "target": "com.amazonaws.licensemanager#LicenseConversionContext",
            "traits": {
              "smithy.api#documentation": "<p>Information about the license type this conversion task converted
from.</p>"
            }
          },
          "DestinationLicenseContext": {
            "target":
 "com.amazonaws.licensemanager#LicenseConversionContext",
            "traits": {
              "smithy.api#documentation": "<p>Information about the license type this conversion task converted
to.</p>"
            }
          },
          "Status": {
            "target": "com.amazonaws.licensemanager#LicenseConversionTaskStatus",
            "traits": {
              "smithy.api#documentation": "<p>The status of the conversion task.</p>"
            }
          },
          "StatusMessage": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>The status message for the conversion task.</p>"
            }
          },
          "StartTime": {
            "target": "com.amazonaws.licensemanager#DateTime",
            "traits": {
              "smithy.api#documentation":
 "<p>The time the conversion task was started at.</p>"
            }
          },
          "LicenseConversionTime": {
            "target": "com.amazonaws.licensemanager#DateTime",
```

```
            "traits": {
                "smithy.api#documentation": "<p>The time the usage operation value of the resource was changed.</p>"
            }
        },
        "EndTime": {
            "target": "com.amazonaws.licensemanager#DateTime",
            "traits": {
                "smithy.api#documentation": "<p>The time the conversion task was completed.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#documentation": "<p>Information about a license type conversion task.</p>"
    }
},
"com.amazonaws.licensemanager#LicenseConversionTaskId": {
    "type": "string",
    "traits": {

     "smithy.api#length": {
            "min": 0,
            "max": 50
        },
        "smithy.api#pattern": "^lct-[a-zA-Z0-9]*$"
    }
},
"com.amazonaws.licensemanager#LicenseConversionTaskStatus": {
    "type": "enum",
    "members": {
        "IN_PROGRESS": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "IN_PROGRESS"
            }
        },
        "SUCCEEDED": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "SUCCEEDED"
            }
        },
        "FAILED": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "FAILED"
            }
        }
```

```
        }
    },
    "com.amazonaws.licensemanager#LicenseConversionTasks":
{
        "type": "list",
        "member": {
            "target": "com.amazonaws.licensemanager#LicenseConversionTask"
        }
    },
    "com.amazonaws.licensemanager#LicenseCountingType": {
        "type": "enum",
        "members": {
            "VCPU": {
                "target": "smithy.api#Unit",
                "traits": {
                    "smithy.api#enumValue": "vCPU"
                }
            },
            "INSTANCE": {
                "target": "smithy.api#Unit",
                "traits": {
                    "smithy.api#enumValue": "Instance"
                }
            },
            "CORE": {
                "target": "smithy.api#Unit",
                "traits": {
                    "smithy.api#enumValue": "Core"
                }
            },
            "SOCKET": {
                "target": "smithy.api#Unit",
                 "traits": {
                    "smithy.api#enumValue": "Socket"
                }
            }
        }
    },
    "com.amazonaws.licensemanager#LicenseDeletionStatus": {
        "type": "enum",
        "members": {
            "PENDING_DELETE": {
                "target": "smithy.api#Unit",
                "traits": {
                    "smithy.api#enumValue": "PENDING_DELETE"
                }
            },
            "DELETED": {
```

```
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "DELETED"
            }
        }
    }
},
"com.amazonaws.licensemanager#LicenseList": {
    "type": "list",
    "member": {
        "target": "com.amazonaws.licensemanager#License"
    }
},
"com.amazonaws.licensemanager#LicenseOperationFailure": {

    "type": "structure",
    "members": {
        "ResourceArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the resource.</p>"
            }
        },
        "ResourceType": {
            "target": "com.amazonaws.licensemanager#ResourceType",
            "traits": {
                "smithy.api#documentation": "<p>Resource type.</p>"
            }
        },
        "ErrorMessage": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Error message.</p>"
            }
        },
        "FailureTime": {
            "target": "com.amazonaws.licensemanager#DateTime",
            "traits": {

"smithy.api#documentation": "<p>Failure time.</p>"
            }
        },
        "OperationName": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Name of the operation.</p>"
            }
        },
```

```
            "ResourceOwnerId": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>ID of the Amazon Web Services account that owns the
resource.</p>"
              }
            },
            "OperationRequestedBy": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>The requester is \"License Manager Automated Discovery\".</p>"
              }
            },
            "MetadataList": {

              "target": "com.amazonaws.licensemanager#MetadataList",
              "traits": {
                "smithy.api#documentation": "<p>Reserved.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>Describes the failure of a license operation.</p>"
          }
        },
        "com.amazonaws.licensemanager#LicenseOperationFailureList": {
          "type": "list",
          "member": {
            "target": "com.amazonaws.licensemanager#LicenseOperationFailure"
          }
        },
        "com.amazonaws.licensemanager#LicenseSpecification": {
          "type": "structure",
          "members": {
            "LicenseConfigurationArn": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license
configuration.</p>",

                "smithy.api#required": {}
              }
            },
            "AmiAssociationScope": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Scope of AMI associations. The possible value is <code>cross-
account</code>.</p>"
```

```
        }
      }
    },
    "traits": {
      "smithy.api#documentation": "<p>Details for associating a license configuration with a resource.</p>"
    }
  },
  "com.amazonaws.licensemanager#LicenseSpecifications": {
    "type": "list",
    "member": {
      "target": "com.amazonaws.licensemanager#LicenseSpecification"
    }
  },
  "com.amazonaws.licensemanager#LicenseStatus": {
    "type": "enum",
    "members": {
      "AVAILABLE": {
        "target": "smithy.api#Unit",

      "traits": {
          "smithy.api#enumValue": "AVAILABLE"
        }
      },
      "PENDING_AVAILABLE": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "PENDING_AVAILABLE"
        }
      },
      "DEACTIVATED": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "DEACTIVATED"
        }
      },
      "SUSPENDED": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "SUSPENDED"
        }
      },
      "EXPIRED": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "EXPIRED"
        }
      },
```

```
        "PENDING_DELETE": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "PENDING_DELETE"
            }
          },
          "DELETED": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "DELETED"
            }
          }
        }
      },
      "com.amazonaws.licensemanager#LicenseUsage": {
        "type": "structure",
        "members": {
          "EntitlementUsages": {
            "target": "com.amazonaws.licensemanager#EntitlementUsageList",
            "traits": {
              "smithy.api#documentation": "<p>License entitlement usages.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Describes the entitlement usage associated with a license.</p>"

        }
      },
      "com.amazonaws.licensemanager#LicenseUsageException": {
        "type": "structure",
        "members": {
          "Message": {
            "target": "com.amazonaws.licensemanager#Message"
          }
        },
        "traits": {
          "aws.protocols#awsQueryError": {
            "code": "LicenseUsageFailure",
            "httpResponseCode": 412
          },
          "smithy.api#documentation": "<p>You do not have enough licenses available to support a new resource
launch.</p>",
          "smithy.api#error": "client",
          "smithy.api#httpError": 412
        }
      },
      "com.amazonaws.licensemanager#ListAssociationsForLicenseConfiguration": {
```

```
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#ListAssociationsForLicenseConfigurationRequest"
        },
        "output": {

    "target": "com.amazonaws.licensemanager#ListAssociationsForLicenseConfigurationResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#FilterLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists the resource associations for the
 specified license configuration.</p>\n         <p>Resource associations need not consume licenses from a license
configuration. \n         For example, an AMI or a stopped instance might not consume a license (depending on \n
the license rules).</p>"
        }
    },
    "com.amazonaws.licensemanager#ListAssociationsForLicenseConfigurationRequest": {
        "type": "structure",
        "members": {
            "LicenseConfigurationArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of a license configuration.</p>",
                    "smithy.api#required": {}
                }
            },
            "MaxResults": {
                "target": "com.amazonaws.licensemanager#BoxInteger",
                "traits": {
```

```
                "smithy.api#documentation": "<p>Maximum number of results
to return in a single call.</p>"
              }
            },
            "NextToken": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#input": {}
          }
        },
        "com.amazonaws.licensemanager#ListAssociationsForLicenseConfigurationResponse": {
          "type": "structure",
          "members": {
            "LicenseConfigurationAssociations": {
              "target": "com.amazonaws.licensemanager#LicenseConfigurationAssociations",
              "traits": {
                "smithy.api#documentation": "<p>Information about the associations for the license
configuration.</p>"
              }
            },
            "NextToken": {

 "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#output": {}
          }
        },
        "com.amazonaws.licensemanager#ListDistributedGrants": {
          "type": "operation",
          "input": {
            "target": "com.amazonaws.licensemanager#ListDistributedGrantsRequest"
          },
          "output": {
            "target": "com.amazonaws.licensemanager#ListDistributedGrantsResponse"
          },
          "errors": [
            {
              "target": "com.amazonaws.licensemanager#AccessDeniedException"
```

```
            },
            {
               "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
               "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
             },
            {
               "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
               "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
               "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
               "target": "com.amazonaws.licensemanager#ValidationException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Lists the grants distributed for the specified license.</p>"
         }
      },
      "com.amazonaws.licensemanager#ListDistributedGrantsRequest": {
         "type": "structure",
         "members": {
            "GrantArns": {
               "target": "com.amazonaws.licensemanager#ArnList",
               "traits": {

            "smithy.api#documentation": "<p>Amazon Resource Names (ARNs) of the grants.</p>"
               }
            },
            "Filters": {
               "target": "com.amazonaws.licensemanager#FilterList",
               "traits": {
                  "smithy.api#documentation": "<p>Filters to scope the results. The following filters are
supported:</p>\n        <ul>\n          <li>\n            <p>\n              <code>LicenseArn</code>\n            </p>\n
      </li>\n          <li>\n            <p>\n              <code>GrantStatus</code>\n            </p>\n          </li>\n
  <li>\n            <p>\n              <code>GranteePrincipalARN</code>\n            </p>\n          </li>\n
<li>\n            <p>\n              <code>ProductSKU</code>\n            </p>\n          </li>\n          <li>\n
<p>\n              <code>LicenseIssuerName</code>\n
        </p>\n          </li>\n        </ul>"
               }
            },
            "NextToken": {
               "target": "com.amazonaws.licensemanager#String",
```

```
            "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
        },
        "MaxResults": {
            "target": "com.amazonaws.licensemanager#MaxSize100",
            "traits": {
                "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#input": {}
    }
},
"com.amazonaws.licensemanager#ListDistributedGrantsResponse": {
    "type": "structure",
    "members": {
        "Grants": {
            "target": "com.amazonaws.licensemanager#GrantList",

"traits": {
                "smithy.api#documentation": "<p>Distributed grant details.</p>"
            }
        },
        "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#output": {}
    }
},
"com.amazonaws.licensemanager#ListFailuresForLicenseConfigurationOperations": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanager#ListFailuresForLicenseConfigurationOperationsRequest"
    },
    "output": {
        "target": "com.amazonaws.licensemanager#ListFailuresForLicenseConfigurationOperationsResponse"
    },
    "errors": [
        {
```

```
"target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
               "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
               "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
               "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
               "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Lists the license configuration operations that failed.</p>"
         }
      },
      "com.amazonaws.licensemanager#ListFailuresForLicenseConfigurationOperationsRequest": {
         "type": "structure",
         "members": {
            "LicenseConfigurationArn": {
               "target": "com.amazonaws.licensemanager#String",
                "traits": {
                  "smithy.api#documentation": "<p>Amazon Resource Name of the license configuration.</p>",
                  "smithy.api#required": {}
               }
            },
            "MaxResults": {
               "target": "com.amazonaws.licensemanager#BoxInteger",
               "traits": {
                  "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
               }
            },
            "NextToken": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Token for the next set of results.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#input": {}
         }
      },
      "com.amazonaws.licensemanager#ListFailuresForLicenseConfigurationOperationsResponse":
```

```
{
        "type": "structure",
        "members": {
          "LicenseOperationFailureList": {
            "target": "com.amazonaws.licensemanager#LicenseOperationFailureList",
            "traits": {
              "smithy.api#documentation": "<p>License configuration operations that failed.</p>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#ListLicenseConfigurations": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#ListLicenseConfigurationsRequest"
        },

    "output": {
          "target": "com.amazonaws.licensemanager#ListLicenseConfigurationsResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#FilterLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          }
```

```
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists the license configurations
 for your account.</p>"
        }
    },
    "com.amazonaws.licensemanager#ListLicenseConfigurationsRequest": {
        "type": "structure",
        "members": {
            "LicenseConfigurationArns": {
                "target": "com.amazonaws.licensemanager#StringList",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Names (ARN) of the license
configurations.</p>"
                }
            },
            "MaxResults": {
                "target": "com.amazonaws.licensemanager#BoxInteger",
                "traits": {
                    "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
                }
            },
            "NextToken": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Token for the next
 set of results.</p>"
                }
            },
            "Filters": {
                "target": "com.amazonaws.licensemanager#Filters",
                "traits": {
                    "smithy.api#documentation": "<p>Filters to scope the results. The following filters and logical
operators\n        are supported:</p>\n        <ul>\n            <li>\n                <p>\n
<code>licenseCountingType</code> - The dimension for which licenses are counted.\n                Possible values are
<code>vCPU</code> | <code>Instance</code> | <code>Core</code> | <code>Socket</code>.\n                Logical
operators are <code>EQUALS</code> | <code>NOT_EQUALS</code>.</p>\n            </li>\n            <li>\n
<p>\n                <code>enforceLicenseCount</code> - A Boolean value that indicates whether hard license
enforcement is used. \n                Logical operators are <code>EQUALS</code> |
<code>NOT_EQUALS</code>.</p>\n
    </li>\n            <li>\n                <p>\n                <code>usagelimitExceeded</code> - A Boolean value that
indicates whether the available licenses have been exceeded. \n                Logical operators are
<code>EQUALS</code> | <code>NOT_EQUALS</code>.</p>\n            </li>\n        </ul>"
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
```

```
    }
  },
  "com.amazonaws.licensemanager#ListLicenseConfigurationsResponse": {
    "type": "structure",
    "members": {
      "LicenseConfigurations": {
        "target": "com.amazonaws.licensemanager#LicenseConfigurations",
        "traits": {
          "smithy.api#documentation": "<p>Information about the license configurations.</p>"
        }
      },
      "NextToken": {
        "target": "com.amazonaws.licensemanager#String",

     "traits": {
          "smithy.api#documentation": "<p>Token for the next set of results.</p>"
        }
      }
    },
    "traits": {
      "smithy.api#output": {}
    }
  },
  "com.amazonaws.licensemanager#ListLicenseConversionTasks": {
    "type": "operation",
    "input": {
      "target": "com.amazonaws.licensemanager#ListLicenseConversionTasksRequest"
    },
    "output": {
      "target": "com.amazonaws.licensemanager#ListLicenseConversionTasksResponse"
    },
    "errors": [
      {
        "target": "com.amazonaws.licensemanager#AccessDeniedException"
      },
      {
        "target": "com.amazonaws.licensemanager#AuthorizationException"
      },
      {
        "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
       },
      {
        "target": "com.amazonaws.licensemanager#RateLimitExceededException"
      },
      {
        "target": "com.amazonaws.licensemanager#ServerInternalException"
      }
    ],
```

```
      "traits": {
        "smithy.api#documentation": "<p>Lists the license type conversion tasks for your account.</p>"
      }
    },
    "com.amazonaws.licensemanager#ListLicenseConversionTasksRequest": {
      "type": "structure",
      "members": {
        "NextToken": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Token for the next set of results.</p>"
          }
        },
        "MaxResults": {
          "target": "com.amazonaws.licensemanager#BoxInteger",
          "traits": {

   "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
          }
        },
        "Filters": {
          "target": "com.amazonaws.licensemanager#Filters",
          "traits": {
            "smithy.api#documentation": "<p>\n        Filters to scope the results. Valid filters are
<code>ResourceArns</code> and <code>Status</code>.\n      </p>"
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#ListLicenseConversionTasksResponse": {
      "type": "structure",
      "members": {
        "LicenseConversionTasks": {
          "target": "com.amazonaws.licensemanager#LicenseConversionTasks",
          "traits": {
            "smithy.api#documentation": "<p>Information about the license configuration tasks for your
 account.</p>"
          }
        },
        "NextToken": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Token for the next set of results.</p>"
          }
        }
```

```
        },
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#ListLicenseManagerReportGenerators": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#ListLicenseManagerReportGeneratorsRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#ListLicenseManagerReportGeneratorsResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target":
"com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists the report generators for your account.</p>"
        }
    },
    "com.amazonaws.licensemanager#ListLicenseManagerReportGeneratorsRequest":
{
        "type": "structure",
        "members": {
```

```
            "Filters": {
              "target": "com.amazonaws.licensemanager#FilterList",
              "traits": {
                "smithy.api#documentation": "<p>Filters to scope the results. The following filters are supported:
</p>\n      <ul>\n        <li>\n          <p>\n            <code>LicenseConfigurationArn</code>\n
</p>\n        </li>\n      </ul>"
              }
            },
            "NextToken": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
              }
            },
            "MaxResults": {
              "target": "com.amazonaws.licensemanager#MaxSize100",
              "traits":
 {
                "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#input": {}
          }
        },
        "com.amazonaws.licensemanager#ListLicenseManagerReportGeneratorsResponse": {
          "type": "structure",
          "members": {
            "ReportGenerators": {
              "target": "com.amazonaws.licensemanager#ReportGeneratorList",
              "traits": {
                "smithy.api#documentation": "<p>A report generator that creates periodic reports about your license
configurations.</p>"
              }
            },
            "NextToken": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
              }

          }
          },
          "traits": {
            "smithy.api#output": {}
          }
        },
```

```
    "com.amazonaws.licensemanager#ListLicenseSpecificationsForResource": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#ListLicenseSpecificationsForResourceRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#ListLicenseSpecificationsForResourceResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
         },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Describes the license configurations for the specified resource.</p>"
      }
    },
    "com.amazonaws.licensemanager#ListLicenseSpecificationsForResourceRequest": {
      "type": "structure",
      "members": {
        "ResourceArn": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of a resource that has an
associated license configuration.</p>",
            "smithy.api#required": {}
          }
        },
        "MaxResults": {
          "target": "com.amazonaws.licensemanager#BoxInteger",
          "traits": {

       "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
          }
        },
        "NextToken": {
```

```
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
               "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
         }
      },
      "traits": {
         "smithy.api#input": {}
      }
   },
   "com.amazonaws.licensemanager#ListLicenseSpecificationsForResourceResponse": {
      "type": "structure",
      "members": {
         "LicenseSpecifications": {
            "target": "com.amazonaws.licensemanager#LicenseSpecifications",
            "traits": {
               "smithy.api#documentation": "<p>License configurations associated with a resource.</p>"
            }
         },
         "NextToken": {
             "target": "com.amazonaws.licensemanager#String",
            "traits": {
               "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
         }
      },
      "traits": {
         "smithy.api#output": {}
      }
   },
   "com.amazonaws.licensemanager#ListLicenseVersions": {
      "type": "operation",
      "input": {
         "target": "com.amazonaws.licensemanager#ListLicenseVersionsRequest"
      },
      "output": {
         "target": "com.amazonaws.licensemanager#ListLicenseVersionsResponse"
      },
      "errors": [
         {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
         },
         {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
         },
         {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
```

```
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Lists all versions of the specified license.</p>"
      }
    },
    "com.amazonaws.licensemanager#ListLicenseVersionsRequest": {
      "type": "structure",
      "members": {
        "LicenseArn": {
          "target": "com.amazonaws.licensemanager#Arn",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>",
            "smithy.api#required": {}
          }
        },
        "NextToken": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Token for the next set of results.</p>"
          }
        },
        "MaxResults": {
          "target": "com.amazonaws.licensemanager#MaxSize100",
          "traits": {
            "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#ListLicenseVersionsResponse": {
      "type": "structure",
      "members": {
        "Licenses": {
          "target": "com.amazonaws.licensemanager#LicenseList",
          "traits": {
            "smithy.api#documentation": "<p>License details.</p>"
          }
        },
```

```
"NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#ListLicenses": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#ListLicensesRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#ListLicensesResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
           },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          },
          {
            "target": "com.amazonaws.licensemanager#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Lists the licenses for your account.</p>"
        }
      },
      "com.amazonaws.licensemanager#ListLicensesRequest": {
        "type": "structure",
        "members": {
          "LicenseArns": {
```

```
            "target": "com.amazonaws.licensemanager#ArnList",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Names (ARNs) of the licenses.</p>"
            }
          },

      "Filters": {
            "target": "com.amazonaws.licensemanager#FilterList",
            "traits": {
              "smithy.api#documentation": "<p>Filters to scope the results. The following filters are
supported:</p>\n        <ul>\n          <li>\n            <p>\n              <code>Beneficiary</code>\n            </p>\n
      </li>\n          <li>\n            <p>\n              <code>ProductSKU</code>\n            </p>\n          </li>\n
   <li>\n            <p>\n              <code>Fingerprint</code>\n            </p>\n          </li>\n          <li>\n
<p>\n              <code>Status</code>\n            </p>\n          </li>\n        </ul>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token
 for the next set of results.</p>"
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanager#MaxSize100",
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#ListLicensesResponse": {
        "type": "structure",
        "members": {
          "Licenses": {
            "target": "com.amazonaws.licensemanager#LicenseList",
            "traits": {
              "smithy.api#documentation": "<p>License details.</p>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
```

```
    "smithy.api#documentation": "<p>Token for the next set of results.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#ListReceivedGrants": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#ListReceivedGrantsRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#ListReceivedGrantsResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
             },
            {
                "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists grants that are received. Received grants are grants created while
specifying the\n          recipient as this Amazon Web Services account, your organization, or an organizational unit\n
    (OU) to which this member account belongs.</p>"
        }
    },
    "com.amazonaws.licensemanager#ListReceivedGrantsForOrganization": {
        "type": "operation",
        "input": {
```

```
            "target": "com.amazonaws.licensemanager#ListReceivedGrantsForOrganizationRequest"
          },
          "output": {
            "target": "com.amazonaws.licensemanager#ListReceivedGrantsForOrganizationResponse"
          },
          "errors": [
            {
              "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
              "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
              "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
              "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
              "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
              "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
              "target":
 "com.amazonaws.licensemanager#ValidationException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Lists the grants received for all accounts in the organization.</p>"
          }
        },
        "com.amazonaws.licensemanager#ListReceivedGrantsForOrganizationRequest": {
          "type": "structure",
          "members": {
            "LicenseArn": {
              "target": "com.amazonaws.licensemanager#Arn",
              "traits": {
                "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the received license.</p>",
                "smithy.api#required": {}
              }
            },
            "Filters": {
              "target": "com.amazonaws.licensemanager#FilterList",
              "traits": {
                "smithy.api#documentation": "<p>Filters to scope the results. The following filters are
supported:</p>\n
```

```
<ul>\n <li>\n <p>\n <code>ParentArn</code>\n </p>\n </li>\n
<li>\n <p>\n <code>GranteePrincipalArn</code>\n </p>\n </li>\n </ul>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanager#MaxSize100",
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#ListReceivedGrantsForOrganizationResponse":
{
        "type": "structure",
        "members": {
          "Grants": {
            "target": "com.amazonaws.licensemanager#GrantList",
            "traits": {
              "smithy.api#documentation": "<p>Lists the grants the organization has received.</p>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#ListReceivedGrantsRequest": {
        "type": "structure",
        "members": {
          "GrantArns": {
            "target": "com.amazonaws.licensemanager#ArnList",
```

```
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Names (ARNs) of the grants.</p>"
            }
          },
          "Filters": {
            "target": "com.amazonaws.licensemanager#FilterList",
            "traits": {
              "smithy.api#documentation": "<p>Filters to scope the results. The following filters are
supported:</p>\n        <ul>\n          <li>\n            <p>\n              <code>ProductSKU</code>\n            </p>\n
        </li>\n          <li>\n            <p>\n              <code>LicenseIssuerName</code>\n            </p>\n
</li>\n          <li>\n            <p>\n              <code>LicenseArn</code>\n            </p>\n          </li>\n
<li>\n            <p>\n              <code>GrantStatus</code>\n            </p>\n          </li>\n          <li>\n
<p>\n
        <code>GranterAccountId</code>\n            </p>\n          </li>\n        </ul>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanager#MaxSize100",
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#ListReceivedGrantsResponse": {
        "type": "structure",
        "members": {
          "Grants": {
            "target": "com.amazonaws.licensemanager#GrantList",
            "traits": {
              "smithy.api#documentation": "<p>Received grant details.</p>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
```

```
        },
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#ListReceivedLicenses": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#ListReceivedLicensesRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#ListReceivedLicensesResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
             },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists received licenses.</p>"
        }
    },
    "com.amazonaws.licensemanager#ListReceivedLicensesForOrganization":
{
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#ListReceivedLicensesForOrganizationRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#ListReceivedLicensesForOrganizationResponse"
```

```
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
          },
          {

      "target": "com.amazonaws.licensemanager#ServerInternalException"
          },
          {
            "target": "com.amazonaws.licensemanager#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Lists the licenses received for all accounts in the organization.</p>"
        }
      },
      "com.amazonaws.licensemanager#ListReceivedLicensesForOrganizationRequest": {
        "type": "structure",
        "members": {
          "Filters": {
            "target": "com.amazonaws.licensemanager#FilterList",
            "traits": {
              "smithy.api#documentation": "<p>Filters to scope the results. The following filters are
supported:</p>\n        <ul>\n          <li>\n            <p>\n              <code>Beneficiary</code>\n            </p>\n
        </li>\n          <li>\n            <p>\n              <code>ProductSKU</code>\n
          </p>\n          </li>\n        </ul>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          },
          "MaxResults": {
```

```
            "target": "com.amazonaws.licensemanager#MaxSize100",
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#ListReceivedLicensesForOrganizationResponse": {
        "type": "structure",
        "members": {
          "Licenses": {
            "target": "com.amazonaws.licensemanager#GrantedLicenseList",
             "traits": {
              "smithy.api#documentation": "<p>Lists the licenses the organization has received.</p>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#ListReceivedLicensesRequest": {
        "type": "structure",
        "members": {
          "LicenseArns": {
            "target": "com.amazonaws.licensemanager#ArnList",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Names (ARNs) of the licenses.</p>"
            }
          },

           "Filters": {
            "target": "com.amazonaws.licensemanager#FilterList",
            "traits": {
              "smithy.api#documentation": "<p>Filters to scope the results. The following filters are
supported:</p>\n        <ul>\n          <li>\n            <p>\n              <code>ProductSKU</code>\n            </p>\n
        </li>\n          <li>\n            <p>\n              <code>Status</code>\n            </p>\n          </li>\n
<li>\n            <p>\n              <code>Fingerprint</code>\n            </p>\n          </li>\n          <li>\n
<p>\n              <code>IssuerName</code>\n            </p>\n          </li>\n          <li>\n            <p>\n
```

```
<code>Beneficiary</code>\n            </p>\n          </li>\n        </ul>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
             "traits": {
               "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanager#MaxSize100",
            "traits": {
               "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#ListReceivedLicensesResponse": {
        "type": "structure",
        "members": {
          "Licenses": {
            "target": "com.amazonaws.licensemanager#GrantedLicenseList",
            "traits": {
               "smithy.api#documentation": "<p>Received license details.</p>"
            }
          },

         "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
               "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#ListResourceInventory": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#ListResourceInventoryRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#ListResourceInventoryResponse"
```

```
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
             "target": "com.amazonaws.licensemanager#FailedDependencyException"
          },
          {
            "target": "com.amazonaws.licensemanager#FilterLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Lists resources managed using Systems Manager inventory.</p>"
        }
      },
      "com.amazonaws.licensemanager#ListResourceInventoryRequest": {
        "type": "structure",
        "members": {
          "MaxResults": {
            "target": "com.amazonaws.licensemanager#BoxInteger",
             "traits": {
               "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          },
          "Filters": {
            "target": "com.amazonaws.licensemanager#InventoryFilterList",
            "traits": {
              "smithy.api#documentation": "<p>Filters to scope the results. The following filters and logical
operators\n       are supported:</p>\n       <ul>\n       <li>\n       <p>\n       <code>account_id</code>
```

- The ID of the Amazon Web Services account that owns the resource.\n Logical operators are <code>EQUALS</code> | <code>NOT_EQUALS</code>. \n \n \n \n <code>application_name</code> - The name of the application. \n Logical operators are <code>EQUALS</code> | <code>BEGINS_WITH</code>. \n \n \n \n <code>license_included</code> - The type of license included. \n Logical operators are <code>EQUALS</code> | <code>NOT_EQUALS</code>.\n Possible values are <code>sql-server-enterprise</code> | \n <code>sql-server-standard</code> | \n <code>sql-server-web</code> | \n <code>windows-server-datacenter</code>. \n \n \n \n <code>platform</code> - The platform of the resource.\n Logical operators are <code>EQUALS</code> | <code>BEGINS_WITH</code>. \n \n \n \n <code>resource_id</code> - The ID of the resource. \n Logical operators are <code>EQUALS</code> | <code>NOT_EQUALS</code>. \n \n \n \n <code>tag:<key></code> - The key/value combination of a tag assigned \n to the resource. Logical operators are <code>EQUALS</code> (single account) or\n <code>EQUALS</code> | <code>NOT_EQUALS</code> (cross account). \n \n "
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#ListResourceInventoryResponse": {
        "type": "structure",
        "members": {
          "ResourceInventoryList": {
            "target": "com.amazonaws.licensemanager#ResourceInventoryList",
            "traits": {
              "smithy.api#documentation": " Information about the resources. "
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": " Token for the next set of results. "
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#ListTagsForResource": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#ListTagsForResourceRequest"
        },

```
      "output": {
        "target": "com.amazonaws.licensemanager#ListTagsForResourceResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
         },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Lists the tags for the specified license configuration.</p>"
      }
    },
    "com.amazonaws.licensemanager#ListTagsForResourceRequest": {
      "type": "structure",
      "members": {
        "ResourceArn": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license
configuration.</p>",

    "smithy.api#required": {}
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#ListTagsForResourceResponse": {
      "type": "structure",
      "members": {
        "Tags": {
          "target": "com.amazonaws.licensemanager#TagList",
          "traits": {
            "smithy.api#documentation": "<p>Information about the tags.</p>"
```

```
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#ListTokens": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#ListTokensRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#ListTokensResponse"
        },
        "errors":
[
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          },
          {
            "target": "com.amazonaws.licensemanager#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Lists your tokens.</p>"
        }
      },
      "com.amazonaws.licensemanager#ListTokensRequest": {
        "type": "structure",
        "members": {
          "TokenIds": {
            "target": "com.amazonaws.licensemanager#StringList",
            "traits": {

              "smithy.api#documentation": "<p>Token IDs.</p>"
            }
          },
          "Filters": {
```

```
            "target": "com.amazonaws.licensemanager#FilterList",
            "traits": {
              "smithy.api#documentation": "<p>Filters to scope the results. The following filter is supported:</p>\n
    <ul>\n        <li>\n        <p>\n        <code>LicenseArns</code>\n        </p>\n        </li>\n
</ul>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanager#MaxSize100",
            "traits": {
              "smithy.api#documentation":
 "<p>Maximum number of results to return in a single call.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#ListTokensResponse": {
        "type": "structure",
        "members": {
          "Tokens": {
            "target": "com.amazonaws.licensemanager#TokenList",
            "traits": {
              "smithy.api#documentation": "<p>Received token details.</p>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#ListUsageForLicenseConfiguration":
{
        "type": "operation",
```

```
        "input": {
            "target": "com.amazonaws.licensemanager#ListUsageForLicenseConfigurationRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#ListUsageForLicenseConfigurationResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#FilterLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists all license usage records for a license configuration, displaying license\n consumption details by resource at a selected point in time. Use this action to audit the\n current license consumption for any license inventory and configuration.</p>"
        }
    },
    "com.amazonaws.licensemanager#ListUsageForLicenseConfigurationRequest": {
        "type": "structure",
        "members": {
            "LicenseConfigurationArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license configuration.</p>",
                    "smithy.api#required": {}
                }
            },
            "MaxResults": {
                "target": "com.amazonaws.licensemanager#BoxInteger",
                "traits": {
                    "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
                }
```

```
            },
            "NextToken": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Token for the next set of results.</p>"
               }
            },
            "Filters": {
               "target": "com.amazonaws.licensemanager#Filters",
               "traits": {
                  "smithy.api#documentation": "<p>Filters to scope the results. The following filters and logical
operators\n        are supported:</p>\n        <ul>\n            <li>\n                <p>\n
<code>resourceArn</code> - The ARN of the license configuration resource.\n
           Logical operators are <code>EQUALS</code> | <code>NOT_EQUALS</code>.</p>\n            </li>\n
 <li>\n                <p>\n                    <code>resourceType</code> - The resource type
(<code>EC2_INSTANCE</code> | <code>EC2_HOST</code> | <code>EC2_AMI</code> |
<code>SYSTEMS_MANAGER_MANAGED_INSTANCE</code>). \n                Logical operators are
<code>EQUALS</code> | <code>NOT_EQUALS</code>.</p>\n            </li>\n            <li>\n                <p>\n
     <code>resourceAccount</code> - The ID of the account that owns the resource. \n                Logical operators
are <code>EQUALS</code> | <code>NOT_EQUALS</code>.</p>\n            </li>\n        </ul>"
               }
            }
         },
         "traits": {
            "smithy.api#input": {}
         }
      },
      "com.amazonaws.licensemanager#ListUsageForLicenseConfigurationResponse": {
         "type": "structure",
         "members": {

 "LicenseConfigurationUsageList": {
               "target": "com.amazonaws.licensemanager#LicenseConfigurationUsageList",
               "traits": {
                  "smithy.api#documentation": "<p>Information about the license configurations.</p>"
               }
            },
            "NextToken": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Token for the next set of results.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#output": {}
         }
      },
```

```
    "com.amazonaws.licensemanager#Location": {
      "type": "string"
    },
    "com.amazonaws.licensemanager#Long": {
      "type": "long"
    },
    "com.amazonaws.licensemanager#ManagedResourceSummary": {
      "type": "structure",
      "members": {
        "ResourceType":
{
          "target": "com.amazonaws.licensemanager#ResourceType",
          "traits": {
            "smithy.api#documentation": "<p>Type of resource associated with a license.</p>"
          }
        },
        "AssociationCount": {
          "target": "com.amazonaws.licensemanager#BoxLong",
          "traits": {
            "smithy.api#documentation": "<p>Number of resources associated with licenses.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>Summary information about a managed resource.</p>"
      }
    },
    "com.amazonaws.licensemanager#ManagedResourceSummaryList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanager#ManagedResourceSummary"
      }
    },
    "com.amazonaws.licensemanager#MaxSize100": {

    "type": "integer",
      "traits": {
        "smithy.api#range": {
          "min": 1,
          "max": 100
        }
      }
    },
    "com.amazonaws.licensemanager#MaxSize3StringList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanager#String"
      },
```

```
      "traits": {
        "smithy.api#length": {
          "min": 0,
          "max": 3
        }
      }
    },
    "com.amazonaws.licensemanager#Message": {
      "type": "string"
    },
    "com.amazonaws.licensemanager#Metadata": {
      "type": "structure",
      "members": {
        "Name": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>The key name.</p>"
          }
        },

    "Value": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>The value.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>Describes key/value pairs.</p>"
      }
    },
    "com.amazonaws.licensemanager#MetadataList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanager#Metadata"
      }
    },
    "com.amazonaws.licensemanager#NoEntitlementsAllowedException": {
      "type": "structure",
      "members": {
        "Message": {
          "target": "com.amazonaws.licensemanager#Message"
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>There are no entitlements found for this license, or the entitlement
maximum count is reached.</p>",
```

```
            "smithy.api#error": "client",
            "smithy.api#httpError": 400
        }
    },
    "com.amazonaws.licensemanager#Options": {
        "type": "structure",
        "members": {
            "ActivationOverrideBehavior": {
                "target": "com.amazonaws.licensemanager#ActivationOverrideBehavior",
                "traits": {
                    "smithy.api#documentation": "<p>An activation option for your grant that determines the behavior of activating a grant.\n          Activation options can only be used with granted licenses sourced from the Amazon Web Services Marketplace. Additionally, the operation must specify the value of <code>ACTIVE</code> for the\n<code>Status</code> parameter.</p>\n          <ul>\n            <li>\n              <p>As a license administrator, you can optionally specify an\n                <code>ActivationOverrideBehavior</code> when activating a grant.</p>\n            </li>\n            <li>\n              <p>As a grantor, you can optionally specify an\n<code>ActivationOverrideBehavior</code> when you activate a grant for a grantee\n                account in your organization.</p>\n            </li>\n            <li>\n              <p>As a grantee, if the grantor creating the distributed grant doesnt specify an\n                <code>ActivationOverrideBehavior</code>, you can optionally specify one when you\n                are activating the grant.</p>\n            </li>\n          </ul>\n          <dl>\n<dt>DISTRIBUTED_GRANTS_ONLY</dt>\n            <dd>\n              <p>Use this value to activate a grant without replacing any member accounts\n                active grants for the same product.</p>\n            </dd>\n<dt>ALL_GRANTS_PERMITTED_BY_ISSUER</dt>\n            <dd>\n              <p>Use this value to activate a grant and disable other active grants in any\n                member accounts\n for the same product. This action will also replace their\n                previously activated grants with this activated grant.</p>\n            </dd>\n          </dl>"
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>The options you can specify when you create a new version of a grant, such as activation\n          override behavior. For more information, see <a href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/granted-licenses.html\">Granted licenses in License Manager</a> in the <i>License Manager User Guide</i>.</p>"
        }
    },
    "com.amazonaws.licensemanager#OrganizationConfiguration": {
        "type": "structure",
        "members": {
            "EnableIntegration": {
                "target": "com.amazonaws.licensemanager#Boolean",
                "traits": {
                    "smithy.api#default": false,
                    "smithy.api#documentation":
 "<p>Enables Organizations integration.</p>",
                    "smithy.api#required": {}
                }
            }
```

```
        },
        "traits": {
          "smithy.api#documentation": "<p>Configuration information for Organizations.</p>"
        }
      },
      "com.amazonaws.licensemanager#PrincipalArnList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#Arn"
        },
        "traits": {
          "smithy.api#length": {
            "min": 1,
            "max": 1
          }
        }
      },
      "com.amazonaws.licensemanager#ProductInformation": {
        "type": "structure",
        "members": {
          "ResourceType": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Resource type. The
 possible values are <code>SSM_MANAGED</code> | <code>RDS</code>.</p>",
              "smithy.api#required": {}
            }
          },
          "ProductInformationFilterList": {
            "target": "com.amazonaws.licensemanager#ProductInformationFilterList",
            "traits": {
              "smithy.api#documentation": "<p>A Product information filter consists of a
 <code>ProductInformationFilterComparator</code> which is a logical operator, a
 <code>ProductInformationFilterName</code> which specifies the type of filter being declared, and a
 <code>ProductInformationFilterValue</code> that specifies the value to filter on. </p>\n          <p>Accepted values
 for <code>ProductInformationFilterName</code> are listed here along with descriptions and valid options for
 <code>ProductInformationFilterComparator</code>. </p>\n          <p>The following filters and are supported when
 the resource type \n          is <code>SSM_MANAGED</code>:</p>\n
          <ul>\n            <li>\n              <p>\n                <code>Application Name</code> - The name of the
 application.\n                Logical operator is <code>EQUALS</code>.</p>\n            </li>\n            <li>\n
 <p>\n                <code>Application Publisher</code> - The publisher of the application.\n                Logical
 operator is <code>EQUALS</code>.</p>\n            </li>\n            <li>\n              <p>\n
 <code>Application Version</code> - The version of the application.\n                Logical operator is
 <code>EQUALS</code>.</p>\n            </li>\n            <li>\n              <p>\n                <code>Platform
 Name</code> - The name of the platform.\n                Logical operator is <code>EQUALS</code>.</p>\n
 </li>\n            <li>\n              <p>\n                <code>Platform Type</code> - The platform type.\n
 Logical operator is <code>EQUALS</code>.</p>\n
```

```
</li>\n <li>\n <p>\n <code>Tag:key</code> - The key of a tag attached to an Amazon Web Services resource you wish to exclude from automated discovery. Logical operator is <code>NOT_EQUALS</code>. The key for your tag must be appended to <code>Tag:</code> following the example: <code>Tag:name-of-your-key</code>. <code>ProductInformationFilterValue</code> is optional if you are not using values for the key.\n </p>\n </li>\n <li>\n <p>\n <code>AccountId</code> - The 12-digit ID of an Amazon Web Services account you wish to exclude from automated discovery.\n Logical operator is <code>NOT_EQUALS</code>.</p>\n </li>\n <li>\n <p>\n <code>License Included</code> - The type of license included.\n Logical operators are <code>EQUALS</code> and <code>NOT_EQUALS</code>.\n Possible values are: <code>sql-server-enterprise</code> | \n <code>sql-server-standard</code> | \n <code>sql-server-web</code> | \n <code>windows-server-datacenter</code>.</p>\n </li>\n </ul>\n <p>The following filters and logical operators are supported when the resource type\n is <code>RDS</code>:</p>\n <ul>\n <li>\n <p>\n <code>Engine Edition</code> - The edition of the database engine.\n Logical operator is <code>EQUALS</code>.\n Possible values are: <code>oracle-ee</code> | <code>oracle-se</code> | <code>oracle-se1</code> | <code>oracle-se2</code>.</p>\n </li>\n <li>\n <p>\n <code>License Pack</code> - The license pack.\n Logical operator is <code>EQUALS</code>.\n Possible values are: <code>data guard</code> | \n <code>diagnostic pack sqlt</code> | \n <code>tuning pack sqlt</code> | \n <code>ols</code> | \n <code>olap</code>.</p>\n </li>\n </ul>",
                "smithy.api#required": {}
            }
        }
    },
    "traits": {
        "smithy.api#documentation": "<p>Describes product information for a license configuration.</p>"
    }
},
"com.amazonaws.licensemanager#ProductInformationFilter": {
    "type": "structure",
    "members": {
        "ProductInformationFilterName": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Filter name.</p>",
                "smithy.api#required": {}
            }
        },
        "ProductInformationFilterValue": {
            "target": "com.amazonaws.licensemanager#StringList",

        "traits": {
                "smithy.api#documentation": "<p>Filter value.</p>"
            }
        },
        "ProductInformationFilterComparator": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
```

```
            "smithy.api#documentation": "<p>Logical operator.</p>",
            "smithy.api#required": {}
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>Describes product information filters.</p>"
      }
    },
    "com.amazonaws.licensemanager#ProductInformationFilterList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanager#ProductInformationFilter"
      }
    },
    "com.amazonaws.licensemanager#ProductInformationList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanager#ProductInformation"
       }
    },
    "com.amazonaws.licensemanager#ProvisionalConfiguration": {
      "type": "structure",
      "members": {
        "MaxTimeToLiveInMinutes": {
          "target": "com.amazonaws.licensemanager#BoxInteger",
          "traits": {
            "smithy.api#documentation": "<p>Maximum time for the provisional configuration, in minutes.</p>",
            "smithy.api#required": {}
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>Details about a provisional configuration.</p>"
      }
    },
    "com.amazonaws.licensemanager#RateLimitExceededException": {
      "type": "structure",
      "members": {
        "Message": {
          "target": "com.amazonaws.licensemanager#Message"
        }
      },
      "traits": {
        "aws.protocols#awsQueryError": {
          "code": "RateLimitExceeded",
          "httpResponseCode": 429
        },
```

```
            "smithy.api#documentation": "<p>Too many requests have been submitted. Try again after a brief
wait.</p>",
            "smithy.api#error": "client",
            "smithy.api#httpError": 429
          }
        },
        "com.amazonaws.licensemanager#ReceivedMetadata": {
          "type": "structure",
          "members": {
            "ReceivedStatus": {
              "target": "com.amazonaws.licensemanager#ReceivedStatus",
              "traits": {
                "smithy.api#documentation": "<p>Received status.</p>"
              }
            },
            "ReceivedStatusReason": {
              "target": "com.amazonaws.licensemanager#StatusReasonMessage",
              "traits": {
                "smithy.api#documentation": "<p>Received
 status reason.</p>"
              }
            },
            "AllowedOperations": {
              "target": "com.amazonaws.licensemanager#AllowedOperationList",
              "traits": {
                "smithy.api#documentation": "<p>Allowed operations.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>Metadata associated with received licenses and grants.</p>"
          }
        },
        "com.amazonaws.licensemanager#ReceivedStatus": {
          "type": "enum",
          "members": {
            "PENDING_WORKFLOW": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "PENDING_WORKFLOW"
              }
            },
            "PENDING_ACCEPT": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue":
 "PENDING_ACCEPT"
              }
```

```
        },
        "REJECTED": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "REJECTED"
          }
        },
        "ACTIVE": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "ACTIVE"
          }
        },
        "FAILED_WORKFLOW": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "FAILED_WORKFLOW"
          }
        },
        "DELETED": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "DELETED"
          }
        },
        "DISABLED": {
          "target": "smithy.api#Unit",
           "traits": {
            "smithy.api#enumValue": "DISABLED"
          }
        },
        "WORKFLOW_COMPLETED": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "WORKFLOW_COMPLETED"
          }
        }
      }
    },
    "com.amazonaws.licensemanager#RedirectException": {
      "type": "structure",
      "members": {
        "Location": {
          "target": "com.amazonaws.licensemanager#Location",
          "traits": {
            "smithy.api#httpHeader": "Location"
          }
        },
```

```
            "Message": {
                "target": "com.amazonaws.licensemanager#Message"
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>This is not the correct Region for the resource. Try again.</p>",
             "smithy.api#error": "client",
            "smithy.api#httpError": 308
        }
    },
    "com.amazonaws.licensemanager#RejectGrant": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#RejectGrantRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#RejectGrantResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target":
"com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Rejects the specified grant.</p>"
        }
    },
    "com.amazonaws.licensemanager#RejectGrantRequest": {
        "type": "structure",
```

```
      "members": {
        "GrantArn": {
          "target": "com.amazonaws.licensemanager#Arn",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the grant.</p>",
            "smithy.api#required": {}
          }
        }
      },
      "traits": {
        "smithy.api#input": {}

  }
    },
    "com.amazonaws.licensemanager#RejectGrantResponse": {
      "type": "structure",
      "members": {
        "GrantArn": {
          "target": "com.amazonaws.licensemanager#Arn",
          "traits": {
            "smithy.api#documentation": "<p>Grant ARN.</p>"
          }
        },
        "Status": {
          "target": "com.amazonaws.licensemanager#GrantStatus",
          "traits": {
            "smithy.api#documentation": "<p>Grant status.</p>"
          }
        },
        "Version": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Grant version.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanager#RenewType":
{
      "type": "enum",
      "members": {
        "NONE": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "None"
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            }
          },
          "WEEKLY": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "Weekly"
            }
          },
          "MONTHLY": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "Monthly"
            }
          }
        }
      },
      "com.amazonaws.licensemanager#ReportContext": {
        "type": "structure",
        "members": {
          "licenseConfigurationArns": {
            "target": "com.amazonaws.licensemanager#ArnList",
            "traits": {

        "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license configuration that this
generator reports on.</p>",
              "smithy.api#required": {}
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Details of the license configuration that this generator reports on.</p>"
        }
      },
      "com.amazonaws.licensemanager#ReportFrequency": {
        "type": "structure",
        "members": {
          "value": {
            "target": "com.amazonaws.licensemanager#Integer",
            "traits": {
              "smithy.api#documentation": "<p>Number of times within the frequency period that a report is
generated.  \n        The only supported value is <code>1</code>.</p>"
            }
          },
          "period": {
            "target": "com.amazonaws.licensemanager#ReportFrequencyType",

           "traits": {
              "smithy.api#documentation": "<p>Time period between each report. The period can be daily, weekly,
```

```
or monthly.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>Details about how frequently reports are generated.</p>"
        }
    },
    "com.amazonaws.licensemanager#ReportFrequencyType": {
        "type": "enum",
        "members": {
            "DAY": {
                "target": "smithy.api#Unit",
                "traits": {
                    "smithy.api#enumValue": "DAY"
                }
            },
            "WEEK": {
                "target": "smithy.api#Unit",
                "traits": {
                    "smithy.api#enumValue": "WEEK"
                }
            },
            "MONTH": {
                "target": "smithy.api#Unit",
                "traits":
{
                    "smithy.api#enumValue": "MONTH"
                }
            }
        }
    },
    "com.amazonaws.licensemanager#ReportGenerator": {
        "type": "structure",
        "members": {
            "ReportGeneratorName": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Name of the report generator.</p>"
                }
            },
            "ReportType": {
                "target": "com.amazonaws.licensemanager#ReportTypeList",
                "traits": {
                    "smithy.api#documentation": "<p>Type of reports that are generated.</p>"
                }
            },
            "ReportContext": {
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            "target": "com.amazonaws.licensemanager#ReportContext",
            "traits": {
                "smithy.api#documentation": "<p>License
configuration type for this generator.</p>"
            }
        },
        "ReportFrequency": {
            "target": "com.amazonaws.licensemanager#ReportFrequency",
            "traits": {
                "smithy.api#documentation": "<p>Details about how frequently reports are generated.</p>"
            }
        },
        "LicenseManagerReportGeneratorArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the report generator.</p>"
            }
        },
        "LastRunStatus": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Status of the last report generation attempt.</p>"
            }
        },
        "LastRunFailureReason":
{
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Failure message for the last report generation attempt.</p>"
            }
        },
        "LastReportGenerationTime": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Time the last report was generated at.</p>"
            }
        },
        "ReportCreatorAccount": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>The Amazon Web Services account ID used to create the report
generator.</p>"
            }
        },
        "Description": {
            "target": "com.amazonaws.licensemanager#String",
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        "traits": {
                "smithy.api#documentation": "<p>Description of the report generator.</p>"
            }
          },
          "S3Location": {
            "target": "com.amazonaws.licensemanager#S3Location",
            "traits": {
              "smithy.api#documentation": "<p>Details of the S3 bucket that report generator reports are published
to.</p>"
            }
          },
          "CreateTime": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Time the report was created.</p>"
            }
          },
          "Tags": {
            "target": "com.amazonaws.licensemanager#TagList",
            "traits": {
              "smithy.api#documentation": "<p>Tags associated with the report generator.</p>"
            }

      }
        },
        "traits": {
          "smithy.api#documentation": "<p>Describe the details of a report generator.</p>"
        }
      },
      "com.amazonaws.licensemanager#ReportGeneratorList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#ReportGenerator"
        }
      },
      "com.amazonaws.licensemanager#ReportGeneratorName": {
        "type": "string",
        "traits": {
          "smithy.api#length": {
            "min": 1,
            "max": 100
          }
        }
      },
      "com.amazonaws.licensemanager#ReportType": {
        "type": "enum",
        "members": {
          "LICENSE_CONFIGURATION_SUMMARY_REPORT": {
```

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            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "LicenseConfigurationSummaryReport"
            }

      },
          "LICENSE_CONFIGURATION_USAGE_REPORT": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "LicenseConfigurationUsageReport"
            }
          }
        }
      },
      "com.amazonaws.licensemanager#ReportTypeList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#ReportType"
        }
      },
      "com.amazonaws.licensemanager#ResourceInventory": {
        "type": "structure",
        "members": {
          "ResourceId": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>ID of the resource.</p>"
            }
          },
          "ResourceType": {
            "target": "com.amazonaws.licensemanager#ResourceType",
            "traits":
{
              "smithy.api#documentation": "<p>Type of resource.</p>"
            }
          },
          "ResourceArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the resource.</p>"
            }
          },
          "Platform": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Platform of the resource.</p>"
            }
          },
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            "PlatformVersion": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Platform version of the resource in the inventory.</p>"
               }
            },
            "ResourceOwningAccountId":
{
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>ID of the account that owns the resource.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#documentation": "<p>Details about a resource.</p>"
         }
      },
      "com.amazonaws.licensemanager#ResourceInventoryList": {
         "type": "list",
         "member": {
            "target": "com.amazonaws.licensemanager#ResourceInventory"
         }
      },
      "com.amazonaws.licensemanager#ResourceLimitExceededException": {
         "type": "structure",
         "members": {
            "Message": {
               "target": "com.amazonaws.licensemanager#Message"
            }
         },
         "traits": {
            "aws.protocols#awsQueryError": {
               "code": "ResourceLimitExceeded",

                "httpResponseCode": 400
            },
            "smithy.api#documentation": "<p>Your resource limits have been exceeded.</p>",
            "smithy.api#error": "client",
            "smithy.api#httpError": 400
         }
      },
      "com.amazonaws.licensemanager#ResourceNotFoundException": {
         "type": "structure",
         "members": {
            "Message": {
               "target": "com.amazonaws.licensemanager#Message"
            }
```

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    },
    "traits": {
      "aws.protocols#awsQueryError": {
        "code": "InvalidResource.NotFound",
        "httpResponseCode": 400
      },
      "smithy.api#documentation": "<p>The resource cannot be found.</p>",
      "smithy.api#error": "client",
      "smithy.api#httpError": 400
    }
  },
  "com.amazonaws.licensemanager#ResourceType": {
    "type": "enum",
     "members": {
      "EC2_INSTANCE": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "EC2_INSTANCE"
        }
      },
      "EC2_HOST": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "EC2_HOST"
        }
      },
      "EC2_AMI": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "EC2_AMI"
        }
      },
      "RDS": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "RDS"
        }
      },
      "SYSTEMS_MANAGER_MANAGED_INSTANCE": {
        "target": "smithy.api#Unit",
        "traits": {
           "smithy.api#enumValue": "SYSTEMS_MANAGER_MANAGED_INSTANCE"
        }
      }
    }
  },
  "com.amazonaws.licensemanager#S3Location": {
    "type": "structure",
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      "members": {
        "bucket": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Name of the S3 bucket reports are published to.</p>"
          }
        },
        "keyPrefix": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Prefix of the S3 bucket reports are published to.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>Details of the S3 bucket that report generator reports are published
to.</p>"
      }
    },
    "com.amazonaws.licensemanager#ServerInternalException": {
      "type": "structure",
      "members": {
        "Message": {
          "target": "com.amazonaws.licensemanager#Message"
        }
      },
      "traits": {
        "aws.protocols#awsQueryError": {
          "code": "InternalError",
          "httpResponseCode": 500
        },
        "smithy.api#documentation": "<p>The server experienced an internal error. Try again.</p>",
        "smithy.api#error": "server",
        "smithy.api#httpError": 500
      }
    },
    "com.amazonaws.licensemanager#SignedToken": {
      "type": "string",
      "traits": {
        "smithy.api#length": {
          "min": 4096
        }
      }
    },
    "com.amazonaws.licensemanager#StatusReasonMessage": {
      "type": "string",
      "traits":
```

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{
            "smithy.api#length": {
               "min": 0,
               "max": 400
            },
            "smithy.api#pattern": "^[\\s\\S]+$"
         }
      },
      "com.amazonaws.licensemanager#String": {
         "type": "string"
      },
      "com.amazonaws.licensemanager#StringList": {
         "type": "list",
         "member": {
            "target": "com.amazonaws.licensemanager#String"
         }
      },
      "com.amazonaws.licensemanager#Tag": {
         "type": "structure",
         "members": {
            "Key": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Tag key.</p>"
               }
            },
            "Value": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation":
"<p>Tag value.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#documentation": "<p>Details about a tag for a license configuration.</p>"
         }
      },
      "com.amazonaws.licensemanager#TagKeyList": {
         "type": "list",
         "member": {
            "target": "com.amazonaws.licensemanager#String"
         }
      },
      "com.amazonaws.licensemanager#TagList": {
         "type": "list",
         "member": {
            "target": "com.amazonaws.licensemanager#Tag"
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        }
      },
      "com.amazonaws.licensemanager#TagResource": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#TagResourceRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#TagResourceResponse"
        },
        "errors": [
          {
            "target":
 "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Adds the specified tags to the specified license configuration.</p>"
        }
      },
      "com.amazonaws.licensemanager#TagResourceRequest": {
        "type": "structure",
        "members": {
          "ResourceArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits":
 {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license
configuration.</p>",
              "smithy.api#required": {}
            }
          },
          "Tags": {
            "target": "com.amazonaws.licensemanager#TagList",
            "traits": {
              "smithy.api#documentation": "<p>One or more tags.</p>",
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                "smithy.api#required": {}
              }
            }
          },
          "traits": {
            "smithy.api#input": {}
          }
        },
        "com.amazonaws.licensemanager#TagResourceResponse": {
          "type": "structure",
          "members": {},
          "traits": {
            "smithy.api#output": {}
          }
        },
        "com.amazonaws.licensemanager#TokenData": {
          "type": "structure",
          "members": {
            "TokenId": {
              "target": "com.amazonaws.licensemanager#String",
               "traits": {
                "smithy.api#documentation": "<p>Token ID.</p>"
              }
            },
            "TokenType": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Type of token generated. The supported value is
<code>REFRESH_TOKEN</code>.</p>"
              }
            },
            "LicenseArn": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>"
              }
            },
            "ExpirationTime": {
              "target": "com.amazonaws.licensemanager#ISO8601DateTime",
              "traits": {
                "smithy.api#documentation": "<p>Token expiration time, in ISO8601-UTC
 format.</p>"
              }
            },
            "TokenProperties": {
              "target": "com.amazonaws.licensemanager#MaxSize3StringList",
              "traits": {
                "smithy.api#documentation": "<p>Data specified by the caller.</p>"
```

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            }
          },
          "RoleArns": {
            "target": "com.amazonaws.licensemanager#ArnList",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Names (ARN) of the roles included in the
token.</p>"
            }
          },
          "Status": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token status. The possible values are
<code>AVAILABLE</code> and <code>DELETED</code>.</p>"
            }
          }
        },
        "traits": {

          "smithy.api#documentation": "<p>Describes a token.</p>"
        }
      },
      "com.amazonaws.licensemanager#TokenList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#TokenData"
        }
      },
      "com.amazonaws.licensemanager#TokenString": {
        "type": "string",
        "traits": {
          "smithy.api#length": {
            "min": 0,
            "max": 4096
          },
          "smithy.api#pattern": "^\\S+$"
        }
      },
      "com.amazonaws.licensemanager#TokenType": {
        "type": "enum",
        "members": {
          "REFRESH_TOKEN": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "REFRESH_TOKEN"
            }
          }
        }
```

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    },
    "com.amazonaws.licensemanager#UnsupportedDigitalSignatureMethodException":
{
        "type": "structure",
        "members": {
            "Message": {
                "target": "com.amazonaws.licensemanager#Message"
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>The digital signature method is unsupported. Try your request
again.</p>",
            "smithy.api#error": "client",
            "smithy.api#httpError": 400
        }
    },
    "com.amazonaws.licensemanager#UntagResource": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#UntagResourceRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#UntagResourceResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
             },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Removes the specified tags from the specified license
configuration.</p>"
        }
    },
    "com.amazonaws.licensemanager#UntagResourceRequest": {
        "type": "structure",
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        "members": {
          "ResourceArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license
configuration.</p>",
               "smithy.api#required": {}
            }
          },
          "TagKeys": {
            "target": "com.amazonaws.licensemanager#TagKeyList",
            "traits": {
              "smithy.api#documentation": "<p>Keys identifying the tags to remove.</p>",
              "smithy.api#required": {}
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#UntagResourceResponse": {
        "type": "structure",
        "members": {},
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#UpdateLicenseConfiguration": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#UpdateLicenseConfigurationRequest"
        },
        "output": {

 "target": "com.amazonaws.licensemanager#UpdateLicenseConfigurationResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {
```

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                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Modifies the attributes of an existing license configuration.</p>"
        }
    },
    "com.amazonaws.licensemanager#UpdateLicenseConfigurationRequest": {
        "type": "structure",
        "members": {
            "LicenseConfigurationArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license
configuration.</p>",
                    "smithy.api#required": {}
                }
            },
            "LicenseConfigurationStatus": {
                "target": "com.amazonaws.licensemanager#LicenseConfigurationStatus",
                "traits": {
                    "smithy.api#documentation": "<p>New status of the license configuration.</p>"
                }
            },
            "LicenseRules": {
                "target": "com.amazonaws.licensemanager#StringList",
                "traits": {

    "smithy.api#documentation": "<p>New license rule. The only rule that you can add after you create a license\n
    configuration is licenseAffinityToHost.</p>"
                }
            },
            "LicenseCount": {
                "target": "com.amazonaws.licensemanager#BoxLong",
                "traits": {
                    "smithy.api#documentation": "<p>New number of licenses managed by the license
configuration.</p>"
                }
            },
            "LicenseCountHardLimit": {
                "target": "com.amazonaws.licensemanager#BoxBoolean",
                "traits": {
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```
                "smithy.api#documentation": "<p>New hard limit of the number of available licenses.</p>"
              }
            },
            "Name": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>New name
 of the license configuration.</p>"
              }
            },
            "Description": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>New description of the license configuration.</p>"
              }
            },
            "ProductInformationList": {
              "target": "com.amazonaws.licensemanager#ProductInformationList",
              "traits": {
                "smithy.api#documentation": "<p>New product information.</p>"
              }
            },
            "DisassociateWhenNotFound": {
              "target": "com.amazonaws.licensemanager#BoxBoolean",
              "traits": {
                "smithy.api#documentation": "<p>When true, disassociates a resource when software is
uninstalled.</p>"
              }
            }
          },
          "traits":
{
            "smithy.api#input": {}
          }
        },
        "com.amazonaws.licensemanager#UpdateLicenseConfigurationResponse": {
          "type": "structure",
          "members": {},
          "traits": {
            "smithy.api#output": {}
          }
        },
        "com.amazonaws.licensemanager#UpdateLicenseManagerReportGenerator": {
          "type": "operation",
          "input": {
            "target": "com.amazonaws.licensemanager#UpdateLicenseManagerReportGeneratorRequest"
          },
          "output": {
```

```
            "target": "com.amazonaws.licensemanager#UpdateLicenseManagerReportGeneratorResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
             },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Updates a report generator.</p>\n        <p>After you make changes to a report generator, it starts generating new reports within 60 minutes of being updated.</p>"
        }
    },
    "com.amazonaws.licensemanager#UpdateLicenseManagerReportGeneratorRequest": {
        "type": "structure",
        "members": {
            "LicenseManagerReportGeneratorArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the report generator to update.</p>",
                    "smithy.api#required": {}
                }
            },
            "ReportGeneratorName": {
                "target": "com.amazonaws.licensemanager#ReportGeneratorName",
                "traits": {
```

```
            "smithy.api#documentation": "<p>Name of the report generator.</p>",
            "smithy.api#required": {}
          }
        },
        "Type": {
          "target": "com.amazonaws.licensemanager#ReportTypeList",
          "traits": {
            "smithy.api#documentation":
 "<p>Type of reports to generate. The following report types are supported:</p>\n        <ul>\n        <li>\n
<p>License configuration report - Reports the number and details of consumed licenses for a license
configuration.</p>\n        </li>\n        <li>\n        <p>Resource report - Reports the tracked licenses and
resource consumption for a license configuration.</p>\n        </li>\n        </ul>",
            "smithy.api#required": {}
          }
        },
        "ReportContext": {
          "target": "com.amazonaws.licensemanager#ReportContext",
          "traits": {
            "smithy.api#documentation": "<p>The report context.</p>",
            "smithy.api#required": {}
          }
        },
        "ReportFrequency": {
          "target": "com.amazonaws.licensemanager#ReportFrequency",
          "traits":
{
            "smithy.api#documentation": "<p>Frequency by which reports are generated.</p>",
            "smithy.api#required": {}
          }
        },
        "ClientToken": {
          "target": "com.amazonaws.licensemanager#ClientRequestToken",
          "traits": {
            "smithy.api#documentation": "<p>Unique, case-sensitive identifier that you provide to ensure the
idempotency of the request.</p>",
            "smithy.api#required": {}
          }
        },
        "Description": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Description of the report generator.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
```

```
    },
    "com.amazonaws.licensemanager#UpdateLicenseManagerReportGeneratorResponse":
{
        "type": "structure",
        "members": {},
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#UpdateLicenseSpecificationsForResource": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#UpdateLicenseSpecificationsForResourceRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#UpdateLicenseSpecificationsForResourceResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },

            {
                "target": "com.amazonaws.licensemanager#InvalidResourceStateException"
            },
            {
                "target": "com.amazonaws.licensemanager#LicenseUsageException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Adds or removes the specified license configurations for the specified
Amazon Web Services resource.</p>\n          <p>You can update the license specifications of AMIs, instances, and
hosts.\n          You cannot update the license specifications for launch templates and CloudFormation templates, \n
 as they send license configurations to the operation that creates the resource.</p>"
        }
    },
```

```
    "com.amazonaws.licensemanager#UpdateLicenseSpecificationsForResourceRequest": {
      "type": "structure",
      "members": {
        "ResourceArn": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the Amazon Web Services
resource.</p>",
            "smithy.api#required": {}
          }
        },
        "AddLicenseSpecifications": {
          "target": "com.amazonaws.licensemanager#LicenseSpecifications",
          "traits": {
            "smithy.api#documentation": "<p>ARNs of the license configurations to add.</p>"
          }
        },
        "RemoveLicenseSpecifications": {
          "target": "com.amazonaws.licensemanager#LicenseSpecifications",
          "traits": {
            "smithy.api#documentation":
 "<p>ARNs of the license configurations to remove.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#UpdateLicenseSpecificationsForResourceResponse": {
      "type": "structure",
      "members": {},
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanager#UpdateServiceSettings": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#UpdateServiceSettingsRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#UpdateServiceSettingsResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
```

```
            },
            {
               "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
               "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
               "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
               "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Updates License Manager settings for the current Region.</p>"
         }
      },
      "com.amazonaws.licensemanager#UpdateServiceSettingsRequest": {
         "type": "structure",
         "members": {
            "S3BucketArn": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the Amazon S3 bucket where
the License
 Manager information is stored.</p>"
               }
            },
            "SnsTopicArn": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the Amazon SNS topic used
for License Manager alerts.</p>"
               }
            },
            "OrganizationConfiguration": {
               "target": "com.amazonaws.licensemanager#OrganizationConfiguration",
               "traits": {
                  "smithy.api#documentation": "<p>Enables integration with Organizations for cross-account
discovery.</p>"
               }
            },
            "EnableCrossAccountsDiscovery": {
               "target": "com.amazonaws.licensemanager#BoxBoolean",
               "traits": {
                  "smithy.api#documentation": "<p>Activates cross-account discovery.</p>"
```

```
        }
            }
          },
          "traits": {
            "smithy.api#input": {}
          }
        },
        "com.amazonaws.licensemanager#UpdateServiceSettingsResponse": {
          "type": "structure",
          "members": {},
          "traits": {
            "smithy.api#output": {}
          }
        },
        "com.amazonaws.licensemanager#UsageOperation": {
          "type": "string",
          "traits": {
            "smithy.api#length": {
              "min": 0,
              "max": 50
            }
          }
        },
        "com.amazonaws.licensemanager#ValidationException": {
          "type": "structure",
          "members": {
            "Message": {
              "target": "com.amazonaws.licensemanager#Message"
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>The provided input is not valid. Try your request again.</p>",

         "smithy.api#error": "client",
            "smithy.api#httpError": 400
          }
        }
      }
    }
```


1.438 vault-api 1.12.1

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1.451 google-uuid 1.6.0

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1.452 python-setuptools 41.2.0

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1.453 structured-merge-diff 4.4.1

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1.454 protobuf-go 1.33.0

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1.455 swag 0.23.0

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1.456 go-urn 1.4.0

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1.457 reflect2 1.0.2

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1.458 graceful 1.2.15

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1.459 tornado 6.3

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1.460 x-net 0.25.0

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1.462 zap 1.27.0

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1.463 golang-jwt 4.5.0

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1.464 go-secure-stdlib-strutil 0.1.2

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1.467 wcwidth 0.1.7

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1.469 python-pip 1.5.4

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1.470 kubernetes-klog 2.120.1

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1.471 aws-sdk-go-v2-internal-v4a 1.3.15

1.471.1 Available under license :

```
name: License Scan

on: [pull_request]

jobs:
 licensescan:
   name: License Scan
   runs-on: ubuntu-latest
   strategy:
     matrix:
       python-version: [3.9]

   steps:
     - name: Checkout target
       uses: actions/checkout@v2
       with:
         path: sdkbase
         ref: ${{ github.base_ref }}
     - name: Checkout this ref
       uses: actions/checkout@v2
       with:
         path: new-ref
         fetch-depth: 0
     - name: Get Diff
       run: git --git-dir ./new-ref/.git diff --name-only --diff-filter=ACMRT ${{ github.event.pull_request.base.sha }}
${{ github.sha }} > refDiffFiles.txt
     - name: Get Target Files
       run: git --git-dir ./sdkbase/.git ls-files | grep -xf refDiffFiles.txt - > targetFiles.txt
     - name: Checkout scancode
       uses: actions/checkout@v2
       with:
         repository: nexB/scancode-toolkit
         path: scancode-toolkit
         fetch-depth: 1
     - name: Set up Python ${{ matrix.python-version }}
        uses: actions/setup-python@v2
       with:
         python-version: ${{ matrix.python-version }}
     # ScanCode
     - name: Self-configure scancode
       working-directory: ./scancode-toolkit
       run: ./scancode --help
     - name: Run Scan code on target
       run: cat targetFiles.txt | while read filename; do echo ./sdkbase/$filename; done | xargs ./scancode-
```

```
toolkit/scancode -l -n 30 --json-pp - | grep short_name | sort | uniq >> old-licenses.txt
    - name: Run Scan code on pr ref
      run: cat refDiffFiles.txt | while read filename; do echo ./new-ref/$filename; done | xargs ./scancode-
toolkit/scancode -l -n 30 --json-pp - | grep short_name | sort | uniq >> new-licenses.txt
    # compare
    - name: License test
      run: if ! cmp old-licenses.txt new-licenses.txt; then echo "Licenses differ! Failing."; exit -1; else echo "Licenses
are the same. Success."; exit 0; fi
ListLicenses
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
 Build stack step
  ClientRequestID
  ComputeContentLength
  UserAgent
  RecursionDetection
 Finalize stack step
  ResolveAuthScheme
  GetIdentity
  ResolveEndpointV2
  disableHTTPS
  ComputePayloadHash
  Retry
  RetryMetricsHeader
  setLegacyContextSigningOptions
  Signing
 Deserialize stack step
  AddRawResponseToMetadata
  ErrorCloseResponseBody
  CloseResponseBody
  ResponseErrorWrapper
  RequestIDRetriever
  OperationDeserializer
  RecordResponseTiming
  RequestResponseLogger
{
  "smithy": "2.0",
  "shapes": {
    "com.amazonaws.licensemanagerlinuxsubscriptions#BoxInteger": {
      "type": "integer"
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#BoxLong": {
```

```
        "type": "long"
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#Filter": {
        "type": "structure",
        "members": {
          "Name": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The type of name to filter by.</p>"
            }
          },
          "Values": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringList",
            "traits": {
              "smithy.api#documentation": "<p>One or more values for the name to filter by.</p>"
            }
          },
          "Operator": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Operator",
             "traits": {
              "smithy.api#documentation": "<p>An operator for filtering results.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>A filter object that is used to return more specific results from a describe
operation.\n      Filters can be used to match a set of resources by specific criteria.</p>"
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#FilterList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Filter"
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettings": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettingsRequest"
        },
        "output": {

          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettingsResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
          },
```

```
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
            },
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists the Linux subscriptions service settings.</p>",
            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/subscription/GetServiceSettings"
            },
            "smithy.api#idempotent": {}
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettingsRequest":
{
        "type": "structure",
        "members": {}
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettingsResponse": {
        "type": "structure",
        "members": {
            "LinuxSubscriptionsDiscovery": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscovery",
                "traits": {
                    "smithy.api#documentation": "<p>Lists if discovery has been enabled for Linux subscriptions.</p>"
                }
            },
            "LinuxSubscriptionsDiscoverySettings": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscoverySettings",
                "traits": {
                    "smithy.api#documentation": "<p>Lists the settings defined for Linux subscriptions discovery. The
settings include if\n      Organizations integration has been enabled, and
 which Regions data will be aggregated from.</p>"
                }
            },
            "Status": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Status",
                "traits": {
                    "smithy.api#documentation": "<p>Indicates the status of Linux subscriptions settings being
applied.</p>"
                }
            },
            "StatusMessage": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringMap",
```

```
            "traits": {
                "smithy.api#documentation": "<p>A message which details the Linux subscriptions service settings
current status.</p>"
            }
        },
        "HomeRegions": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringList",
            "traits": {
                "smithy.api#documentation": "<p>The Region in which License Manager displays
 the aggregated data for Linux\n      subscriptions.</p>"
            }
        }
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#Instance": {
      "type": "structure",
      "members": {
        "AmiId": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The AMI ID used to launch the instance.</p>"
          }
        },
        "InstanceID": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The instance ID of the resource.</p>"
          }
        },
        "InstanceType": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The instance type of the resource.</p>"
          }

      },
        "AccountID": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The account ID which owns the instance.</p>"
          }
        },
        "Status": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The status of the instance.</p>"
          }
        },
```

```
            "Region": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The Region the instance is running in.</p>"
                }
            },
            "UsageOperation": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The usage operation of the instance. For more information, see For
 more information, see\n        <a href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/linux-
subscriptions-usage-operation.html\">Usage\n        operation values</a> in the <i>License Manager User
Guide</i>.</p>"
                }
            },
            "ProductCode": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ProductCodeList",
                "traits": {
                    "smithy.api#documentation": "<p>The product code for the instance. For more information, see <a
href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/linux-subscriptions-usage-
operation.html\">Usage\n        operation values</a> in the <i>License Manager User Guide</i> .</p>"
                }
            },
            "LastUpdatedTime": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The time in which the last discovery
 updated the instance details.</p>"
                }
            },
            "SubscriptionName": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The name of the subscription being used by the instance.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>Details discovered information about a running instance using Linux
subscriptions.</p>"
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#InstanceList": {
        "type": "list",
        "member": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Instance"
        }
    },
```

```
"com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException": {
   "type": "structure",
   "members": {
      "message": {
         "target": "smithy.api#String"
       }
   },
   "traits": {
      "smithy.api#documentation": "<p>An exception occurred with the service.</p>",
      "smithy.api#error": "server"
   }
},
"com.amazonaws.licensemanagerlinuxsubscriptions#LicenseManagerLinuxSubscriptions": {
   "type": "service",
   "version": "2018-05-10",
   "operations": [
      {
         "target": "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettings"
      },
      {
         "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstances"
      },
      {
         "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptions"
      },
      {
         "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettings"
      }
   ],

"traits": {
      "aws.api#service": {
         "sdkId": "License Manager Linux Subscriptions",
         "arnNamespace": "license-manager-linux-subscriptions",
         "cloudTrailEventSource": "license-manager-linux-subscriptions.amazonaws.com"
      },
      "aws.auth#sigv4": {
         "name": "license-manager-linux-subscriptions"
      },
      "aws.protocols#restJson1": {},
      "smithy.api#cors": {
         "additionalAllowedHeaders": [
            "*",
            "content-type",
            "x-amz-content-sha256",
            "x-amz-user-agent",
            "x-amzn-platform-id",
            "x-amzn-trace-id",
```

```
                "content-length",
                "x-api-key",
                "authorization",
                "x-amz-date",

 "x-amz-security-token",
                "Access-Control-Allow-Headers",
                "Access-Control-Allow-Methods",
                "Access-Control-Allow-Origin"
              ],
              "additionalExposedHeaders": [
                "x-amzn-errortype",
                "x-amzn-requestid",
                "x-amzn-trace-id"
              ]
            },
            "smithy.api#documentation": "<p>With License Manager, you can discover and track your commercial Linux subscriptions on running\n      Amazon EC2 instances.</p>",
            "smithy.api#title": "AWS License Manager Linux Subscriptions",
            "smithy.rules#endpointRuleSet": {
              "version": "1.0",
              "parameters": {
                "Region": {
                  "builtIn": "AWS::Region",
                  "required": false,
                  "documentation": "The
 AWS region used to dispatch the request.",
                  "type": "String"
                },
                "UseDualStack": {
                  "builtIn": "AWS::UseDualStack",
                  "required": true,
                  "default": false,
                  "documentation": "When true, use the dual-stack endpoint. If the configured endpoint does not support dual-stack, dispatching the request MAY return an error.",
                  "type": "Boolean"
                },
                "UseFIPS": {
                  "builtIn": "AWS::UseFIPS",
                  "required": true,
                  "default": false,
                  "documentation": "When true, send this request to the FIPS-compliant regional endpoint. If the configured endpoint does not have a FIPS compliant endpoint, dispatching the request will return an error.",

                 "type": "Boolean"
                },
                "Endpoint": {
                  "builtIn": "SDK::Endpoint",
```

```
      "required": false,
      "documentation": "Override the endpoint used to send this request",
      "type": "String"
    }
  },
  "rules": [
    {
      "conditions": [
        {
          "fn": "isSet",
          "argv": [
            {
              "ref": "Endpoint"
            }
          ]
        }
      ],
      "type": "tree",
      "rules": [
        {

          "conditions": [
                {
                  "fn": "booleanEquals",
                  "argv": [
                    {
                      "ref": "UseFIPS"
                    },
                    true
                  ]
                }
            ],
            "error": "Invalid Configuration: FIPS and custom endpoint are not supported",
            "type": "error"
        },
        {
          "conditions": [],
          "type": "tree",
          "rules": [
            {

            "conditions": [
                    {
                      "fn": "booleanEquals",
                      "argv": [
                        {
                          "ref": "UseDualStack"
                        },
```

```
                        true
                    ]
                }
            ],
            "error": "Invalid Configuration: Dualstack and custom endpoint are not supported",
            "type": "error"
        },
        {
            "conditions": [],

 "endpoint": {
                "url": {
                    "ref": "Endpoint"
                },
                "properties": {},
                "headers": {}
            },
            "type": "endpoint"
        }
    ]
  }
 ]
},
{
  "conditions": [],
  "type": "tree",
  "rules": [
    {
      "conditions": [
        {
          "fn": "isSet",

"argv": [
                {
                    "ref": "Region"
                }
            ]
        }
    ],
    "type": "tree",
    "rules": [
        {
            "conditions": [
                {
                    "fn": "aws.partition",
                    "argv": [
                        {
                            "ref": "Region"
```

```
                }
            ],

"assign": "PartitionResult"
        }
    ],
    "type": "tree",
    "rules": [
        {
            "conditions": [
                {
                    "fn": "booleanEquals",
                    "argv": [
                        {
                            "ref": "UseFIPS"
                        },
                        true
                    ]
                },

{
                    "fn": "booleanEquals",
                    "argv": [
                        {
                            "ref": "UseDualStack"
                        },
                        true
                    ]
                }
            ],
            "type": "tree",
            "rules": [
                {
                    "conditions": [
                        {

                      "fn": "booleanEquals",
                            "argv": [
                              true,
                              {
                                "fn": "getAttr",
                                "argv": [
                                    {
                                        "ref": "PartitionResult"
                                    },
                                    "supportsFIPS"
                                ]
```

```
    }
                                        ]
                                    },
                                    {
                                        "fn": "booleanEquals",
                                        "argv": [
                                            true,
                                            {
                                                "fn": "getAttr",
                                                "argv": [
                                                    {
                                                        "ref": "PartitionResult"
                                                    },

                                                "supportsDualStack"
                                                    ]
                                                }
                                            ]
                                        }
                                    ],
                                    "type": "tree",
                                    "rules": [
                                        {
                                            "conditions": [],
                                            "type": "tree",
                                            "rules": [
                                                {

                                "conditions": [],
                                                        "endpoint": {
                                                            "url": "https://license-manager-linux-subscriptions-
fips.{Region}.{PartitionResult#dualStackDnsSuffix}",
                                                            "properties": {},
                                                            "headers": {}
                                                        },
                                                        "type": "endpoint"
                                                    }
                                                ]
                                            }
                                        ]

                            },
                                    {
                                        "conditions": [],
                                        "error": "FIPS and DualStack are enabled, but this partition does not support
one or both",
                                        "type": "error"
                                    }
```

```
                ]
            },
            {
                "conditions": [
                    {
                        "fn": "booleanEquals",
                        "argv": [
                            {

        "ref": "UseFIPS"
                            },
                            true
                        ]
                    }
                ],
                "type": "tree",
                "rules": [
                    {
                        "conditions": [
                            {
                                "fn": "booleanEquals",
                                "argv": [
                                    true,

{
                                            "fn": "getAttr",
                                            "argv": [
                                                {
                                                    "ref": "PartitionResult"
                                                },
                                                "supportsFIPS"
                                            ]
                                        }
                                    ]
                                }
                            ],
                            "type": "tree",

                    "rules": [
                                {
                                    "conditions": [],
                                    "type": "tree",
                                    "rules": [
                                        {
                                            "conditions": [],
                                            "endpoint": {
                                                "url": "https://license-manager-linux-subscriptions-
fips.{Region}.{PartitionResult#dnsSuffix}",
```

```
                                "properties": {},
                                "headers": {}

                            },
                            "type": "endpoint"
                        }
                    ]
                }
            ]
        },
        {
            "conditions": [],
            "error": "FIPS is enabled but this partition does not support FIPS",
            "type": "error"
        }
    ]

},
                {
    "conditions": [
        {
            "fn": "booleanEquals",
            "argv": [
                {
                    "ref": "UseDualStack"
                },
                true
            ]
        }
    ],
    "type": "tree",
    "rules": [
        {

     "conditions": [
                {
                    "fn": "booleanEquals",
                    "argv": [
                        true,
                        {
                            "fn": "getAttr",
                            "argv": [
                                {
                                    "ref": "PartitionResult"
                                },
                                "supportsDualStack"
                            ]
                        }
```

```
                ]
              }
            ],
            "type": "tree",
            "rules": [
              {
                "conditions": [],
                "type": "tree",
                "rules": [
                  {
                    "conditions": [],

                   "endpoint": {
                        "url": "https://license-manager-linux-
subscriptions.{Region}.{PartitionResult#dualStackDnsSuffix}",
                        "properties": {},
                        "headers": {}
                      },
                      "type": "endpoint"
                  }
                ]
              }
            ]
          },

    {
            "conditions": [],
            "error": "DualStack is enabled but this partition does not support DualStack",
            "type": "error"
          }
        ]
      },
      {
        "conditions": [],
        "type": "tree",
        "rules": [
          {
            "conditions": [],
            "endpoint": {
              "url":
"https://license-manager-linux-subscriptions.{Region}.{PartitionResult#dnsSuffix}",
              "properties": {},
              "headers": {}
            },
            "type": "endpoint"
          }
        ]
      }
```

```
                    ]
                  }
                ]
              },
              {
                "conditions": [],
                "error": "Invalid Configuration: Missing Region",
                "type": "error"
              }
            ]
          }
        ]
      },
      "smithy.rules#endpointTests": {
        "testCases": [
          {
            "documentation": "For region us-east-1 with FIPS enabled and DualStack enabled",
            "expect": {
              "endpoint": {
                "url": "https://license-manager-linux-subscriptions-fips.us-east-1.api.aws"
              }
            },
            "params": {
              "Region": "us-east-1",
              "UseFIPS": true,
              "UseDualStack": true
            }
          },
          {
            "documentation": "For region us-east-1 with FIPS enabled and DualStack disabled",
            "expect": {

"endpoint": {
                "url": "https://license-manager-linux-subscriptions-fips.us-east-1.amazonaws.com"
              }
            },
            "params": {
              "Region": "us-east-1",
              "UseFIPS": true,
              "UseDualStack": false
            }
          },
          {
            "documentation": "For region us-east-1 with FIPS disabled and DualStack enabled",
            "expect": {
              "endpoint": {
                "url": "https://license-manager-linux-subscriptions.us-east-1.api.aws"
              }
```

```
    },
    "params": {
      "Region": "us-east-1",
      "UseFIPS": false,
       "UseDualStack": true
    }
  },
  {
    "documentation": "For region us-east-1 with FIPS disabled and DualStack disabled",
    "expect": {
      "endpoint": {
        "url": "https://license-manager-linux-subscriptions.us-east-1.amazonaws.com"
      }
    },
    "params": {
      "Region": "us-east-1",
      "UseFIPS": false,
      "UseDualStack": false
    }
  },
  {
    "documentation": "For region cn-north-1 with FIPS enabled and DualStack enabled",
    "expect": {
      "endpoint": {

    "url": "https://license-manager-linux-subscriptions-fips.cn-north-1.api.amazonwebservices.com.cn"
      }
    },
    "params": {
      "Region": "cn-north-1",
      "UseFIPS": true,
      "UseDualStack": true
    }
  },
  {
    "documentation": "For region cn-north-1 with FIPS enabled and DualStack disabled",
    "expect": {
      "endpoint": {
        "url": "https://license-manager-linux-subscriptions-fips.cn-north-1.amazonaws.com.cn"
      }
    },
    "params": {
      "Region": "cn-north-1",
      "UseFIPS": true,
       "UseDualStack": false
    }
  },
  {
```

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      "documentation": "For region cn-north-1 with FIPS disabled and DualStack enabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-linux-subscriptions.cn-north-1.api.amazonwebservices.com.cn"
        }
      },
      "params": {
        "Region": "cn-north-1",
        "UseFIPS": false,
        "UseDualStack": true
      }
    },
    {
      "documentation": "For region cn-north-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint":
{
          "url": "https://license-manager-linux-subscriptions.cn-north-1.amazonaws.com.cn"
        }
      },
      "params": {
        "Region": "cn-north-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack enabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-linux-subscriptions-fips.us-gov-east-1.api.aws"
        }
      },
      "params": {
        "Region": "us-gov-east-1",
        "UseFIPS": true,
         "UseDualStack": true
      }
    },
    {
      "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-linux-subscriptions-fips.us-gov-east-1.amazonaws.com"
        }
      },
      "params": {
        "Region": "us-gov-east-1",
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```
            "UseFIPS": true,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-gov-east-1 with FIPS disabled and DualStack enabled",
          "expect": {
            "endpoint":
{
              "url": "https://license-manager-linux-subscriptions.us-gov-east-1.api.aws"
            }
          },
          "params": {
            "Region": "us-gov-east-1",
            "UseFIPS": false,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region us-gov-east-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-linux-subscriptions.us-gov-east-1.amazonaws.com"
            }
          },
          "params": {
            "Region": "us-gov-east-1",
            "UseFIPS": false,
             "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack enabled",
          "expect": {
            "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
          },
          "params": {
            "Region": "us-iso-east-1",
            "UseFIPS": true,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-linux-subscriptions-fips.us-iso-east-1.c2s.ic.gov"
```

```
        }
      },
      "params": {
        "Region": "us-iso-east-1",
        "UseFIPS": true,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack enabled",
      "expect": {
        "error": "DualStack is enabled but this partition does not support DualStack"
      },
      "params": {
        "Region": "us-iso-east-1",
        "UseFIPS": false,
        "UseDualStack": true
      }
    },
    {

"documentation": "For region us-iso-east-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-linux-subscriptions.us-iso-east-1.c2s.ic.gov"
        }
      },
      "params": {
        "Region": "us-iso-east-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack enabled",
      "expect": {
        "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
      },
      "params": {

     "Region": "us-isob-east-1",
        "UseFIPS": true,
        "UseDualStack": true
      }
    },
    {
      "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack disabled",
      "expect": {
```

```
            "endpoint": {
              "url": "https://license-manager-linux-subscriptions-fips.us-isob-east-1.sc2s.sgov.gov"
            }
          },
          "params": {
            "Region": "us-isob-east-1",
            "UseFIPS": true,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-isob-east-1 with FIPS disabled
and DualStack enabled",
          "expect": {
            "error": "DualStack is enabled but this partition does not support DualStack"
          },
          "params": {
            "Region": "us-isob-east-1",
            "UseFIPS": false,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-linux-subscriptions.us-isob-east-1.sc2s.sgov.gov"
            }
          },
          "params": {
            "Region": "us-isob-east-1",

      "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For custom endpoint with region set and fips disabled and dualstack disabled",
          "expect": {
            "endpoint": {
              "url": "https://example.com"
            }
          },
          "params": {
            "Region": "us-east-1",
            "UseFIPS": false,
            "UseDualStack": false,
            "Endpoint": "https://example.com"
```

```
      }
    },
    {
      "documentation": "For custom endpoint with region not set and fips disabled and dualstack
disabled",

  "expect": {
        "endpoint": {
          "url": "https://example.com"
        }
      },
      "params": {
        "UseFIPS": false,
        "UseDualStack": false,
        "Endpoint": "https://example.com"
      }
    },
    {
      "documentation": "For custom endpoint with fips enabled and dualstack disabled",
      "expect": {
        "error": "Invalid Configuration: FIPS and custom endpoint are not supported"
      },
      "params": {
        "Region": "us-east-1",
        "UseFIPS": true,
        "UseDualStack": false,

   "Endpoint": "https://example.com"
      }
    },
    {
      "documentation": "For custom endpoint with fips disabled and dualstack enabled",
      "expect": {
        "error": "Invalid Configuration: Dualstack and custom endpoint are not supported"
      },
      "params": {
        "Region": "us-east-1",
        "UseFIPS": false,
        "UseDualStack": true,
        "Endpoint": "https://example.com"
      }
    },
    {
      "documentation": "Missing region",
      "expect": {
        "error": "Invalid Configuration: Missing Region"
      }
```

```
        }
            ],
            "version": "1.0"
        }
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscovery": {
      "type": "string",
      "traits": {
        "smithy.api#enum": [
          {
            "name": "Enabled",
            "value": "Enabled",
            "documentation": "Enabled LinuxSubscriptionsDiscovery"
          },
          {
            "name": "Disabled",
            "value": "Disabled",
            "documentation": "Disabled LinuxSubscriptionsDiscovery"
          }
        ]
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscoverySettings": {
      "type": "structure",
      "members": {
        "SourceRegions": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringList",
          "traits": {
            "smithy.api#documentation": "<p>The Regions in which to discover data for Linux
subscriptions.</p>",
            "smithy.api#required": {}
          }
        },
        "OrganizationIntegration": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#OrganizationIntegration",
          "traits": {
            "smithy.api#documentation": "<p>Details if you have enabled resource discovery across your
accounts in Organizations.</p>",
            "smithy.api#required": {}
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>Lists the settings defined for discovering Linux subscriptions.</p>"
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstances": {
```

```
        "type":
 "operation",
        "input": {
           "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstancesRequest"
        },
        "output": {
           "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstancesResponse"
        },
        "errors": [
           {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
           },
           {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
           },
           {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
           }
        ],
        "traits": {
           "smithy.api#documentation": "<p>Lists the running Amazon EC2 instances that were discovered with
commercial Linux\n      subscriptions.</p>",
           "smithy.api#http": {

         "code": 200,
              "method": "POST",
              "uri": "/subscription/ListLinuxSubscriptionInstances"
           },
           "smithy.api#idempotent": {},
           "smithy.api#paginated": {
              "inputToken": "NextToken",
              "outputToken": "NextToken",
              "pageSize": "MaxResults",
              "items": "Instances"
           }
        }
     },
     "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstancesRequest": {
        "type": "structure",
        "members": {
           "Filters": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#FilterList",
              "traits": {
                 "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those
that match one or\n      more sets of key-value pairs that you specify. For example, you can filter by
 the name of\n      <code>AmiID</code> with an optional operator to see subscriptions that match, partially\n
match, or don't match a certain Amazon Machine Image (AMI) ID.</p>\n      <p>The valid names for this filter
are:</p>\n      <ul>\n      <li>\n      <p>\n      <code>AmiID</code>\n      </p>\n
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</li>\n <li>\n <p>\n <code>InstanceID</code>\n </p>\n </li>\n
<li>\n <p>\n <code>AccountID</code>\n </p>\n </li>\n <li>\n
<p>\n <code>Status</code>\n </p>\n </li>\n <li>\n <p>\n
<code>Region</code>\n </p>\n </li>\n <li>\n <p>\n
<code>UsageOperation</code>\n </p>\n </li>\n <li>\n
<p>\n <code>ProductCode</code>\n </p>\n </li>\n <li>\n <p>\n
<code>InstanceType</code>\n </p>\n </li>\n </ul>\n <p>The valid Operators for this
filter are:</p>\n <ul>\n <li>\n <p>\n <code>contains</code>\n </p>\n
</li>\n <li>\n <p>\n <code>equals</code>\n </p>\n </li>\n <li>\n
<p>\n <code>Notequal</code>\n </p>\n </li>\n </ul>"
          }
        },
        "MaxResults": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#BoxInteger",
          "traits": {
            "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"

      }
        },
        "NextToken": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>Token for the next set of results.</p>",
            "smithy.api#length": {
              "min": 1,
              "max": 16384
            }
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "NextToken length limit is half of ddb accepted limit.\nIncrease this limit if
parameters in request increases."
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstancesResponse": {
      "type": "structure",
      "members": {
        "Instances": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InstanceList",
          "traits": {
            "smithy.api#documentation":
 "<p>An array that contains instance objects.</p>"
          }
        },
        "NextToken": {
          "target": "smithy.api#String",
          "traits": {
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                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
              }
            }
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptions": {
          "type": "operation",
          "input": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionsRequest"
          },
          "output": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionsResponse"
          },
          "errors": [
            {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
            },
            {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
             },
            {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Lists the Linux subscriptions that have been discovered. If you have linked your\n      organization, the returned results will include data aggregated across your accounts in\n Organizations.</p>",
            "smithy.api#http": {
              "code": 200,
              "method": "POST",
              "uri": "/subscription/ListLinuxSubscriptions"
            },
            "smithy.api#idempotent": {},
            "smithy.api#paginated": {
              "inputToken": "NextToken",
              "outputToken": "NextToken",
              "pageSize": "MaxResults",
              "items": "Subscriptions"
            }

          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionsRequest": {
          "type": "structure",
          "members": {
            "Filters": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#FilterList",
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```
            "traits": {
                "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those that match one or\n more sets of key-value pairs that you specify. For example, you can filter by the name of\n <code>Subscription</code> with an optional operator to see subscriptions that match,\n partially match, or don't match a certain subscription's name.</p>\n <p>The valid names for this filter are:</p>\n <ul>\n <li>\n <p>\n <code>Subscription</code>\n </p>\n </li>\n </ul>\n <p>The valid Operators for this filter are:</p>\n <ul>\n <li>\n <p>\n <code>contains</code>\n </p>\n </li>\n <li>\n <p>\n <code>equals</code>\n </p>\n </li>\n <li>\n <p>\n <code>Notequal</code>\n </p>\n </li>\n </ul>"
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#BoxInteger",
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>",
              "smithy.api#length": {

                "min": 1,
                "max": 16384
              }
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "NextToken length limit is half of ddb accepted limit.\nIncrease this limit if parameters in request increases."
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionsResponse": {
        "type": "structure",
        "members": {
          "Subscriptions": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionList",
            "traits": {
              "smithy.api#documentation": "<p>An array that contains subscription objects.</p>"
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for
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the next set of results.</p>"
                }
            }
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#Operator": {
        "type": "string",
        "traits": {
            "smithy.api#enum": [
                {
                    "name": "EQUAL",
                    "value": "Equal",
                    "documentation": "Equal operator"
                },
                {
                    "name": "NOT_EQUAL",
                    "value": "NotEqual",
                    "documentation": "Not equal operator"
                },
                {
                    "name": "CONTAINS",
                    "value": "Contains",
                    "documentation": "Contains operator"
                }
            ],
            "smithy.api#length": {
                "min": 1,
                "max": 20
            }
        }
    },

  "com.amazonaws.licensemanagerlinuxsubscriptions#OrganizationIntegration": {
        "type": "string",
        "traits": {
            "smithy.api#enum": [
                {
                    "name": "Enabled",
                    "value": "Enabled",
                    "documentation": "Enabled OrganizationIntegration"
                },
                {
                    "name": "Disabled",
                    "value": "Disabled",
                    "documentation": "Disabled OrganizationIntegration"
                }
            ]
        }
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    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ProductCodeList": {
        "type": "list",
        "member": {
            "target": "smithy.api#String"
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#Status": {
        "type": "string",
        "traits": {
            "smithy.api#enum": [

   {
                    "name": "InProgress",
                    "value": "InProgress",
                    "documentation": "InProgress status"
                },
                {
                    "name": "Completed",
                    "value": "Completed",
                    "documentation": "Completed status"
                },
                {
                    "name": "Successful",
                    "value": "Successful",
                    "documentation": "Successful status"
                },
                {
                    "name": "Failed",
                    "value": "Failed",
                    "documentation": "Failed status"
                }
            ]
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#StringList": {
        "type": "list",
        "member": {
            "target": "smithy.api#String",
            "traits":
{
                "smithy.api#length": {
                    "min": 1,
                    "max": 100
                }
            }
        },
        "traits": {
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            "smithy.api#length": {
                "min": 1,
                "max": 100
            },
            "smithy.api#uniqueItems": {}
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#StringMap": {
        "type": "map",
        "key": {
            "target": "smithy.api#String"
        },
        "value": {
            "target": "smithy.api#String"
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#Subscription": {
        "type": "structure",
        "members": {
            "Name": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The name of the subscription.</p>"

        }
            },
            "Type": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The type of subscription. The type can be subscription-included
with Amazon EC2, Bring Your Own\n      Subscription model (BYOS), or from the Amazon Web Services
Marketplace. Certain subscriptions may use licensing from the\n      Amazon Web Services Marketplace as well as
OS licensing from Amazon EC2 or BYOS.</p>"
                }
            },
            "InstanceCount": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#BoxLong",
                "traits": {
                    "smithy.api#documentation": "<p>The total amount of running instances using this subscription.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>An object which details a discovered Linux
 subscription.</p>"
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionList": {
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    "type": "list",
    "member": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Subscription"
    }
},
"com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException": {
    "type": "structure",
    "members": {
        "message": {
            "target": "smithy.api#String"
        }
    },
    "traits": {
        "smithy.api#documentation": "<p>The request was denied due to request throttling.</p>",
        "smithy.api#error": "client"
    }
},
"com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettings": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettingsRequest"
    },

"output": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettingsResponse"
    },
    "errors": [
        {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
        },
        {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
        },
        {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
        }
    ],
    "traits": {
        "smithy.api#documentation": "<p>Updates the service settings for Linux subscriptions.</p>",
        "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/subscription/UpdateServiceSettings"
        },
        "smithy.api#idempotent": {}
    }
},
"com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettingsRequest":
```

```
{
        "type": "structure",
        "members": {
          "LinuxSubscriptionsDiscovery": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscovery",
            "traits": {
              "smithy.api#documentation": "<p>Describes if the discovery of Linux subscriptions is enabled.</p>",
              "smithy.api#required": {}
            }
          },
          "LinuxSubscriptionsDiscoverySettings": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscoverySettings",
            "traits": {
              "smithy.api#documentation": "<p>The settings defined for Linux subscriptions discovery. The
settings include if Organizations\n      integration has been enabled, and which Regions data will be aggregated
from.</p>",

  "smithy.api#required": {}
            }
          },
          "AllowUpdate": {
            "target": "smithy.api#Boolean",
            "traits": {
              "smithy.api#documentation": "<p>Describes if updates are allowed to the service settings for Linux
subscriptions. If you\n      allow updates, you can aggregate Linux subscription data in more than one home
Region.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettingsResponse": {
        "type": "structure",
        "members": {
          "LinuxSubscriptionsDiscovery": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscovery",
            "traits": {
              "smithy.api#documentation": "<p>Lists if discovery has been enabled for Linux subscriptions.</p>"
            }
          },

          "LinuxSubscriptionsDiscoverySettings": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscoverySettings",
            "traits": {
              "smithy.api#documentation": "<p>The settings defined for Linux subscriptions discovery. The
settings include if Organizations\n      integration has been enabled, and which Regions data will be aggregated
from.</p>"
            }
          },
```

```
            "Status": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Status",
                "traits": {
                    "smithy.api#documentation": "<p>Indicates the status of Linux subscriptions settings being
applied.</p>"
                }
            },
            "StatusMessage": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringMap",
                "traits": {
                    "smithy.api#documentation":
 "<p>A message which details the Linux subscriptions service settings current status.</p>"
                }
            },
            "HomeRegions": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringList",
                "traits": {
                    "smithy.api#documentation": "<p>The Region in which License Manager displays the aggregated
data for Linux\n      subscriptions.</p>"
                }
            }
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException": {
        "type": "structure",
        "members": {
            "message": {
                "target": "smithy.api#String"
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>The provided input is not valid. Try your request again.</p>",
            "smithy.api#error": "client"
        }
    }
  }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)
```

```
// Checks in the specified license. Check in a license when it is no longer in use.
func (c *Client) CheckInLicense(ctx context.Context, params *CheckInLicenseInput, optFns ...func(*Options))
(*CheckInLicenseOutput, error) {
 if params == nil {
  params = &CheckInLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "CheckInLicense", params, optFns,
c.addOperationCheckInLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*CheckInLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type CheckInLicenseInput struct {

 // License consumption token.
 //
 // This member is required.
 LicenseConsumptionToken *string

 // License beneficiary.
 Beneficiary *string

 noSmithyDocumentSerde
}

type
 CheckInLicenseOutput struct {
 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationCheckInLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpCheckInLicense{}, middleware.After)
 if err != nil {
  return err
 }
```

```
err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpCheckInLicense{}, middleware.After)
if err != nil {
 return err
}
if err := addProtocolFinalizerMiddlewares(stack, options, "CheckInLicense"); err != nil {
 return fmt.Errorf("add protocol finalizers: %v", err)
}

if err = addlegacyEndpointContextSetter(stack, options); err != nil {
 return err
}
if err = addSetLoggerMiddleware(stack, options); err != nil {
 return err
}
if err = addClientRequestID(stack); err != nil {
 return err
}
if
err = addComputeContentLength(stack); err != nil {
 return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
 return err
}
if err = addComputePayloadSHA256(stack); err != nil {
 return err
}
if err = addRetry(stack, options); err != nil {
 return err
}
if err = addRawResponseToMetadata(stack); err != nil {
 return err
}
if err = addRecordResponseTiming(stack); err != nil {
 return err
}
if err = addClientUserAgent(stack, options); err != nil {
 return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
 return err
}
```

```
 if err = addOpCheckInLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opCheckInLicense(options.Region),
middleware.Before); err != nil {
  return
 err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opCheckInLicense(region string) *awsmiddleware.RegisterServiceMetadata
{
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:    ServiceID,
  OperationName: "CheckInLicense",
 }
}
CheckoutBorrowLicense
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
  OperationInputValidation
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
 Build stack step
  ClientRequestID
  ComputeContentLength
  UserAgent
```

RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
RecordResponseTiming
RequestResponseLogger
DisassociateLicense
Initialize stack step
RegisterServiceMetadata
legacyEndpointContextSetter
SetLogger
OperationInputValidation
Serialize stack step
setOperationInput
ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
UserAgent
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody

```
  CloseResponseBody
  ResponseErrorWrapper
  RequestIDRetriever
  OperationDeserializer
  RecordResponseTiming
  RequestResponseLogger
CheckoutLicense
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
  OperationInputValidation
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
 Build stack step
  ClientRequestID
  ComputeContentLength
  UserAgent
  RecursionDetection
 Finalize stack step
  ResolveAuthScheme
  GetIdentity
  ResolveEndpointV2
  disableHTTPS
  ComputePayloadHash
  Retry
  RetryMetricsHeader
  setLegacyContextSigningOptions
  Signing
 Deserialize stack step
  AddRawResponseToMetadata
  ErrorCloseResponseBody
  CloseResponseBody
  ResponseErrorWrapper
  RequestIDRetriever
  OperationDeserializer
  RecordResponseTiming
  RequestResponseLogger
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
```

```
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Checks out the specified license.
//
// If the account that created the license is the same that is performing the
// check out, you must specify the account as the beneficiary.
func (c *Client) CheckoutLicense(ctx context.Context, params *CheckoutLicenseInput, optFns ...func(*Options))
(*CheckoutLicenseOutput, error) {
 if params == nil {
  params = &CheckoutLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "CheckoutLicense", params, optFns,
c.addOperationCheckoutLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*CheckoutLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type CheckoutLicenseInput struct {

 //
 Checkout type.
 //
 // This member is required.
 CheckoutType types.CheckoutType

 // Unique, case-sensitive identifier that you provide to ensure the idempotency of
 // the request.
 //
 // This member is required.
 ClientToken *string

 // License entitlements.
 //
 // This member is required.
 Entitlements []types.EntitlementData

 // Key fingerprint identifying the license.
 //
 // This member is required.
```

```
 KeyFingerprint *string

 // Product SKU.
 //
 // This member is required.
 ProductSKU *string

 // License beneficiary.
 Beneficiary *string

 // Node ID.
 NodeId *string

 noSmithyDocumentSerde
}

type CheckoutLicenseOutput struct {

 // Checkout type.
 CheckoutType types.CheckoutType

 // Allowed license entitlements.
 EntitlementsAllowed []types.EntitlementData

 // Date and time at which the license checkout expires.
 Expiration *string

 // Date and time at which the license checkout is issued.
 IssuedAt *string

 // Amazon Resource Name (ARN) of the checkout license.
 LicenseArn
 *string

 // License consumption token.
 LicenseConsumptionToken *string

 // Node ID.
 NodeId *string

 // Signed token.
 SignedToken *string

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}
```

```
func (c *Client) addOperationCheckoutLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpCheckoutLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpCheckoutLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "CheckoutLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack,
 options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
```

```
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addOpCheckoutLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err
 = stack.Initialize.Add(newServiceMetadataMiddleware_opCheckoutLicense(options.Region), middleware.Before);
err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opCheckoutLicense(region string) *awsmiddleware.RegisterServiceMetadata
{
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName: "CheckoutLicense",
 }
}
AssociateLicense
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
```

OperationInputValidation
Serialize stack step
setOperationInput
ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
UserAgent
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
RecordResponseTiming
RequestResponseLogger
CheckInLicense
Initialize stack step
RegisterServiceMetadata
legacyEndpointContextSetter
SetLogger
OperationInputValidation
Serialize stack step
setOperationInput
ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
UserAgent
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2

```
 disableHTTPS
 ComputePayloadHash
 Retry
 RetryMetricsHeader
 setLegacyContextSigningOptions
 Signing
Deserialize stack step
 AddRawResponseToMetadata
 ErrorCloseResponseBody
 CloseResponseBody
 ResponseErrorWrapper
 RequestIDRetriever
 OperationDeserializer
 RecordResponseTiming
 RequestResponseLogger
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Lists received licenses.
func (c *Client) ListReceivedLicenses(ctx context.Context, params *ListReceivedLicensesInput, optFns
...func(*Options)) (*ListReceivedLicensesOutput, error) {
 if params == nil {
  params = &ListReceivedLicensesInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "ListReceivedLicenses", params, optFns,
c.addOperationListReceivedLicensesMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*ListReceivedLicensesOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type ListReceivedLicensesInput struct {
```

```
 // Filters to scope the results. The following filters are supported:
 //
 //   - ProductSKU
 //
 //   - Status
 //
 //
   - Fingerprint
 //
 //   - IssuerName
 //
 //   - Beneficiary
 Filters []types.Filter

 // Amazon Resource Names (ARNs) of the licenses.
 LicenseArns []string

 // Maximum number of results to return in a single call.
 MaxResults *int32

 // Token for the next set of results.
 NextToken *string

 noSmithyDocumentSerde
}

type ListReceivedLicensesOutput struct {

 // Received license details.
 Licenses []types.GrantedLicense

 // Token for the next set of results.
 NextToken *string

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationListReceivedLicensesMiddlewares(stack *middleware.Stack, options Options) (err
error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpListReceivedLicenses{}, middleware.After)
 if err != nil {
  return err
```

```
}
err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpListReceivedLicenses{},
middleware.After)
if err != nil {
 return err
}
if err := addProtocolFinalizerMiddlewares(stack, options, "ListReceivedLicenses"); err != nil {
 return fmt.Errorf("add protocol finalizers: %v", err)
}

if err = addlegacyEndpointContextSetter(stack, options); err != nil {
 return err
}
if err = addSetLoggerMiddleware(stack, options); err != nil {
 return err
}
if err = addClientRequestID(stack); err != nil {
 return err
}
if err = addComputeContentLength(stack); err != nil {
 return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
 return err
}
if err = addComputePayloadSHA256(stack); err != nil {
 return err
}
if err = addRetry(stack, options); err != nil {
 return err
}
if err = addRawResponseToMetadata(stack); err != nil {
 return err
}
if err = addRecordResponseTiming(stack); err != nil {
 return err
}
if err = addClientUserAgent(stack, options); err != nil {
 return err
}
if err
= smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
```

```
 return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opListReceivedLicenses(options.Region),
middleware.Before); err != nil {
 return err
 }
 if err = addRecursionDetection(stack); err != nil {
 return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
 return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
 return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
 return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
 return err
 }
 return nil
}

func newServiceMetadataMiddleware_opListReceivedLicenses(region string)
*awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:
    ServiceID,
  OperationName: "ListReceivedLicenses",
 }
}
AWS SDK for Go
Copyright 2015 Amazon.com, Inc. or its affiliates. All Rights Reserved.
Copyright 2014-2015 Stripe, Inc.
CreateLicense
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
  OperationInputValidation
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
 Build stack step
  ClientRequestID
```

ComputeContentLength
UserAgent
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
RecordResponseTiming
RequestResponseLogger
GetLicense
Initialize stack step
RegisterServiceMetadata
legacyEndpointContextSetter
SetLogger
OperationInputValidation
Serialize stack step
setOperationInput
ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
UserAgent
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step

```
 AddRawResponseToMetadata
 ErrorCloseResponseBody
 CloseResponseBody
 ResponseErrorWrapper
 RequestIDRetriever
 OperationDeserializer
 RecordResponseTiming
 RequestResponseLogger
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Creates a license.
func (c *Client) CreateLicense(ctx context.Context, params *CreateLicenseInput, optFns ...func(*Options))
(*CreateLicenseOutput, error) {
 if params == nil {
  params = &CreateLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "CreateLicense", params, optFns,
c.addOperationCreateLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*CreateLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type CreateLicenseInput struct {

 // License beneficiary.
 //
 // This member is required.
 Beneficiary *string

 // Unique, case-sensitive identifier that you provide to ensure the idempotency of
 // the request.
```

```
//
//
This member is required.
ClientToken *string

// Configuration for consumption of the license. Choose a provisional
// configuration for workloads running with continuous connectivity. Choose a
// borrow configuration for workloads with offline usage.
//
// This member is required.
ConsumptionConfiguration *types.ConsumptionConfiguration

// License entitlements.
//
// This member is required.
Entitlements []types.Entitlement

// Home Region for the license.
//
// This member is required.
HomeRegion *string

// License issuer.
//
// This member is required.
Issuer *types.Issuer

// License name.
//
// This member is required.
LicenseName *string

// Product name.
//
// This member is required.
ProductName *string

// Product SKU.
//
// This member is required.
ProductSKU *string

// Date and time range during which the license is valid, in ISO8601-UTC format.
//
// This member is required.
Validity *types.DatetimeRange

// Information about
```

```
 the license.
 LicenseMetadata []types.Metadata

 noSmithyDocumentSerde
}

type CreateLicenseOutput struct {

 // Amazon Resource Name (ARN) of the license.
 LicenseArn *string

 // License status.
 Status types.LicenseStatus

 // License version.
 Version *string

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationCreateLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpCreateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpCreateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "CreateLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if
 err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
```

```
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return
 err
 }
 if err = addOpCreateLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opCreateLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
```

```
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opCreateLicense(region string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:    ServiceID,
  OperationName: "CreateLicense",
 }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Checks out the specified license for offline use.
func (c *Client) CheckoutBorrowLicense(ctx context.Context, params *CheckoutBorrowLicenseInput, optFns
...func(*Options)) (*CheckoutBorrowLicenseOutput, error) {
 if params == nil {
  params = &CheckoutBorrowLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "CheckoutBorrowLicense", params, optFns,
c.addOperationCheckoutBorrowLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*CheckoutBorrowLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type CheckoutBorrowLicenseInput struct {
```

```
 // Unique, case-sensitive identifier that you provide to ensure the idempotency of
 //
 the request.
 //
 // This member is required.
 ClientToken *string

 // Digital signature method. The possible value is JSON Web Signature (JWS)
 // algorithm PS384. For more information, see [RFC 7518 Digital Signature with RSASSA-PSS].
 //
 // [RFC 7518 Digital Signature with RSASSA-PSS]: https://tools.ietf.org/html/rfc7518#section-3.5
 //
 // This member is required.
 DigitalSignatureMethod types.DigitalSignatureMethod

 // License entitlements. Partial checkouts are not supported.
 //
 // This member is required.
 Entitlements []types.EntitlementData

 // Amazon Resource Name (ARN) of the license. The license must use the borrow
 // consumption configuration.
 //
 // This member is required.
 LicenseArn *string

 // Information about constraints.
 CheckoutMetadata []types.Metadata

 // Node ID.
 NodeId *string

 noSmithyDocumentSerde
}

type CheckoutBorrowLicenseOutput struct {

 // Information about constraints.
 CheckoutMetadata []types.Metadata

 // Allowed license entitlements.
 EntitlementsAllowed
 []types.EntitlementData

 // Date and time at which the license checkout expires.
 Expiration *string
```

```
// Date and time at which the license checkout is issued.
IssuedAt *string

// Amazon Resource Name (ARN) of the license.
LicenseArn *string

// License consumption token.
LicenseConsumptionToken *string

// Node ID.
NodeId *string

// Signed token.
SignedToken *string

// Metadata pertaining to the operation's result.
ResultMetadata middleware.Metadata

noSmithyDocumentSerde
}

func (c *Client) addOperationCheckoutBorrowLicenseMiddlewares(stack *middleware.Stack, options Options) (err
error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpCheckoutBorrowLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpCheckoutBorrowLicense{}, middleware.After)
 if err != nil {
  return
 err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "CheckoutBorrowLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
```

```
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return
 err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addOpCheckoutBorrowLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opCheckoutBorrowLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
```

```
 return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opCheckoutBorrowLicense(region string)
*awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:
       region,
  ServiceID:     ServiceID,
  OperationName: "CheckoutBorrowLicense",
 }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Gets detailed information about the specified license.
func (c *Client) GetLicense(ctx context.Context, params *GetLicenseInput, optFns ...func(*Options))
(*GetLicenseOutput, error) {
 if params == nil {
  params = &GetLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "GetLicense", params, optFns,
c.addOperationGetLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*GetLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}
```

```
type GetLicenseInput struct {

 // Amazon Resource Name (ARN) of the license.
 //
 // This member is required.
 LicenseArn *string

 // License version.
 Version *string

 noSmithyDocumentSerde
}

type
 GetLicenseOutput struct {

 // License details.
 License *types.License

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationGetLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpGetLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpGetLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "GetLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err
```

```
!= nil {
 return err
}
if err = addComputeContentLength(stack); err != nil {
 return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
 return err
}
if err = addComputePayloadSHA256(stack); err != nil {
 return err
}
if err = addRetry(stack, options); err != nil {
 return err
}
if err = addRawResponseToMetadata(stack); err != nil {
 return err
}
if err = addRecordResponseTiming(stack); err != nil {
 return err
}
if err = addClientUserAgent(stack, options); err != nil {
 return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
 return err
}
if err = addOpGetLicenseValidationMiddleware(stack); err != nil {
 return err
}
if err = stack.Initialize.Add(newServiceMetadataMiddleware_opGetLicense(options.Region), middleware.Before);
err != nil {
 return err
}
if err = addRecursionDetection(stack); err != nil {
 return err
}
if err = addRequestIDRetrieverMiddleware(stack); err != nil {
 return err
}
if err = addResponseErrorMiddleware(stack); err != nil {
 return err
```

```
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opGetLicense(region string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:    ServiceID,
  OperationName: "GetLicense",
 }
}
DeleteLicense
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
  OperationInputValidation
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
 Build stack step
  ClientRequestID
  ComputeContentLength
  UserAgent
  RecursionDetection
 Finalize stack step
  ResolveAuthScheme
  GetIdentity
  ResolveEndpointV2
  disableHTTPS
  ComputePayloadHash
  Retry
  RetryMetricsHeader
  setLegacyContextSigningOptions
  Signing
 Deserialize stack step
  AddRawResponseToMetadata
  ErrorCloseResponseBody
  CloseResponseBody
  ResponseErrorWrapper
  RequestIDRetriever
```

```
  OperationDeserializer
  RecordResponseTiming
  RequestResponseLogger
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Lists the licenses for your account.
func (c *Client) ListLicenses(ctx context.Context, params *ListLicensesInput, optFns ...func(*Options))
(*ListLicensesOutput, error) {
 if params == nil {
  params = &ListLicensesInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "ListLicenses", params, optFns,
c.addOperationListLicensesMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*ListLicensesOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type ListLicensesInput struct {

 // Filters to scope the results. The following filters are supported:
 //
 //   - Beneficiary
 //
 //   - ProductSKU
 //
 //   - Fingerprint
 //
 //   - Status
 Filters
 []types.Filter
```

```
 // Amazon Resource Names (ARNs) of the licenses.
 LicenseArns []string

 // Maximum number of results to return in a single call.
 MaxResults *int32

 // Token for the next set of results.
 NextToken *string

 noSmithyDocumentSerde
}

type ListLicensesOutput struct {

 // License details.
 Licenses []types.License

 // Token for the next set of results.
 NextToken *string

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationListLicensesMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpListLicenses{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpListLicenses{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack,
 options, "ListLicenses"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
```

```
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack);
 err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opListLicenses(options.Region), middleware.Before);
err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
```

```
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opListLicenses(region string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName: "ListLicenses",
 }
}
```

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```
ListReceivedLicenses
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
```

SetLogger
Serialize stack step
setOperationInput
ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
UserAgent
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
RecordResponseTiming
RequestResponseLogger

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```
// Code generated by smithy-go-codegen DO NOT EDIT.

package grafana

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/grafana/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Removes the Grafana Enterprise license from a workspace.
func (c *Client) DisassociateLicense(ctx context.Context, params *DisassociateLicenseInput, optFns
...func(*Options)) (*DisassociateLicenseOutput, error) {
 if params == nil {
  params = &DisassociateLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "DisassociateLicense", params, optFns,
c.addOperationDisassociateLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*DisassociateLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type DisassociateLicenseInput struct {

 // The type of license to remove from the workspace.
 //
 // This member is required.
 LicenseType types.LicenseType

 //
 The ID of the workspace to remove the Grafana Enterprise license from.
 //
 // This member is required.
 WorkspaceId *string

 noSmithyDocumentSerde
}

type DisassociateLicenseOutput struct {
```

```
 // A structure containing information about the workspace.
 //
 // This member is required.
 Workspace *types.WorkspaceDescription

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationDisassociateLicenseMiddlewares(stack *middleware.Stack, options Options) (err
error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsRestjson1_serializeOpDisassociateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsRestjson1_deserializeOpDisassociateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "DisassociateLicense");
 err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
```

```
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil
 {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addOpDisassociateLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opDisassociateLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opDisassociateLicense(region string)
```

```
*awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName: "DisassociateLicense",
 }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package grafana

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/grafana/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Assigns a Grafana Enterprise license to a workspace. To upgrade, you must use
// ENTERPRISE for the licenseType , and pass in a valid Grafana Labs token for the
// grafanaToken . Upgrading to Grafana Enterprise incurs additional fees. For more
// information, see [Upgrade a workspace to Grafana Enterprise].
//
// [Upgrade a workspace to Grafana Enterprise]: https://docs.aws.amazon.com/grafana/latest/userguide/upgrade-to-
Grafana-Enterprise.html
func (c *Client) AssociateLicense(ctx context.Context, params *AssociateLicenseInput, optFns ...func(*Options))
(*AssociateLicenseOutput, error) {
 if params == nil {
  params = &AssociateLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx,
 "AssociateLicense", params, optFns, c.addOperationAssociateLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*AssociateLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type AssociateLicenseInput struct {

 // The type of license to associate with the workspace.
 //
```

```
 // Amazon Managed Grafana workspaces no longer support Grafana Enterprise free
 // trials.
 //
 // This member is required.
 LicenseType types.LicenseType

 // The ID of the workspace to associate the license with.
 //
 // This member is required.
 WorkspaceId *string

 // A token from Grafana Labs that ties your Amazon Web Services account with a
 // Grafana Labs account. For more information, see [Link your account with Grafana Labs].
 //
 // [Link your account with Grafana Labs]: https://docs.aws.amazon.com/grafana/latest/userguide/upgrade-to-
Grafana-Enterprise.html#AMG-workspace-register-enterprise
 GrafanaToken *string

 noSmithyDocumentSerde
}

type AssociateLicenseOutput
 struct {

 // A structure containing data about the workspace.
 //
 // This member is required.
 Workspace *types.WorkspaceDescription

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationAssociateLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsRestjson1_serializeOpAssociateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsRestjson1_deserializeOpAssociateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "AssociateLicense"); err != nil {
```

```
 return fmt.Errorf("add protocol finalizers: %v", err)
}

if err = addlegacyEndpointContextSetter(stack, options); err != nil {
 return err
}
if err = addSetLoggerMiddleware(stack,
options); err != nil {
 return err
}
if err = addClientRequestID(stack); err != nil {
 return err
}
if err = addComputeContentLength(stack); err != nil {
 return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
 return err
}
if err = addComputePayloadSHA256(stack); err != nil {
 return err
}
if err = addRetry(stack, options); err != nil {
 return err
}
if err = addRawResponseToMetadata(stack); err != nil {
 return err
}
if err = addRecordResponseTiming(stack); err != nil {
 return err
}
if err = addClientUserAgent(stack, options); err != nil {
 return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
 return err
}
if err = addOpAssociateLicenseValidationMiddleware(stack); err != nil {
 return err
}
if err
```

```
 = stack.Initialize.Add(newServiceMetadataMiddleware_opAssociateLicense(options.Region), middleware.Before);
err != nil {
 return err
 }
 if err = addRecursionDetection(stack); err != nil {
 return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
 return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
 return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
 return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
 return err
 }
 return nil
}

func newServiceMetadataMiddleware_opAssociateLicense(region string)
*awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:    ServiceID,
  OperationName: "AssociateLicense",
 }
}
{
  "smithy": "2.0",
  "shapes": {
    "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException": {
      "type": "structure",
      "members": {
        "message": {
          "target": "smithy.api#String"
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>You don't have sufficient access to perform this action.</p>",
        "smithy.api#error": "client"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ActiveDirectoryIdentityProvider": {
      "type": "structure",
      "members": {
```

```
        "DirectoryId": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The directory ID for an Active Directory identity provider.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#documentation":
"<p>Details about an Active Directory identity provider.</p>"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#AssociateUser": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#AssociateUserRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#AssociateUserResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
         },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Associates the user to an EC2 instance to utilize user-based
subscriptions.</p>\n        <note>\n        <p>Your estimated bill for charges on the number of users and related
costs will take 48\n        hours to appear for billing periods that haven't closed (marked as <b>Pending</b> billing
status) in Amazon Web Services Billing. For more information, see <a
```

```
href=\"https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/invoice.html\">Viewing your\n
        monthly charges</a> in the <i>Amazon Web Services Billing User Guide</i>.</p>\n        </note>",
            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/user/AssociateUser"
            },
            "smithy.api#idempotent": {}
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#AssociateUserRequest": {
        "type": "structure",
        "members": {
            "Username": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The user name from the identity provider for the user.</p>",
                    "smithy.api#required": {}
                }
            },
            "InstanceId": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The ID of the
EC2 instance, which provides user-based subscriptions.</p>",
                    "smithy.api#required": {}
                }
            },
            "IdentityProvider": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
                "traits": {
                    "smithy.api#documentation": "<p>The identity provider of the user.</p>",
                    "smithy.api#required": {}
                }
            },
            "Domain": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The domain name of the user.</p>"
                }
            }
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#AssociateUserResponse": {
        "type": "structure",
        "members": {
            "InstanceUserSummary": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummary",
```

```
                "traits": {
                  "smithy.api#documentation": "<p>Metadata that describes the associate user operation.</p>",
                  "smithy.api#required": {}
                }
              }
            }
        },
        "com.amazonaws.licensemanagerusersubscriptions#BoxInteger": {
            "type": "integer"
        },
        "com.amazonaws.licensemanagerusersubscriptions#ConflictException": {
            "type": "structure",
            "members": {
                "message": {
                    "target": "smithy.api#String"
                }
            },
            "traits": {
                "smithy.api#documentation": "<p>The request couldn't be completed because it conflicted with the current state of the\n      resource.</p>",
                "smithy.api#error": "server"
            }
        },
        "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProvider":
 {
            "type": "operation",
            "input": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProviderRequest"
            },
            "output": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProviderResponse"
            },
            "errors": [
                {
                    "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
                },
                {
                    "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
                },
                {
                    "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
                },
                {
                    "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
                },
                {
                    "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
```

```
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Deregisters the identity provider from providing user-based
subscriptions.</p>",
            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/identity-provider/DeregisterIdentityProvider"
            },
            "smithy.api#idempotent": {}
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProviderRequest": {
        "type": "structure",
        "members": {
            "IdentityProvider": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
                "traits": {
                    "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
                    "smithy.api#required": {}
                }
            },
            "Product": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
                    "smithy.api#required": {}
                }
            }
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProviderResponse": {
        "type": "structure",
        "members": {
            "IdentityProviderSummary": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary",
                "traits": {
                    "smithy.api#documentation":
"<p>Metadata that describes the results of an identity provider operation.</p>",
                    "smithy.api#required": {}
                }
```

```
            }
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#DisassociateUser": {
          "type": "operation",
          "input": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#DisassociateUserRequest"
          },
          "output": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#DisassociateUserResponse"
          },
          "errors": [
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
             },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Disassociates the user from an EC2 instance providing user-based
subscriptions.</p>",
            "smithy.api#http": {
              "code": 200,
              "method": "POST",
              "uri": "/user/DisassociateUser"
            },
            "smithy.api#idempotent": {}
          }

 },
        "com.amazonaws.licensemanagerusersubscriptions#DisassociateUserRequest": {
          "type": "structure",
```

```
        "members": {
          "Username": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The user name from the identity provider for the user.</p>",
              "smithy.api#required": {}
            }
          },
          "InstanceId": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The ID of the EC2 instance, which provides user-based
subscriptions.</p>",
              "smithy.api#required": {}
            }
          },
          "IdentityProvider": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
            "traits": {
              "smithy.api#documentation":
 "<p>An object that specifies details for the identity provider.</p>",
              "smithy.api#required": {}
            }
          },
          "Domain": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The domain name of the user.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#DisassociateUserResponse": {
        "type": "structure",
        "members": {
          "InstanceUserSummary": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummary",
            "traits": {
              "smithy.api#documentation": "<p>Metadata that describes the associate user operation.</p>",
              "smithy.api#required": {}
            }
          }
        }
      },

 "com.amazonaws.licensemanagerusersubscriptions#Filter": {
        "type": "structure",
        "members": {
```

```
            "Attribute": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The name of an attribute to use as a filter.</p>"
              }
            },
            "Operation": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The type of search (For example, eq, geq, leq)</p>"
              }
            },
            "Value": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>Value of the filter.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>A filter name and value pair that is used
 to return more specific results from a describe\n      operation. Filters can be used to match a set of resources by
specific criteria, such as tags,\n      attributes, or IDs.</p>"
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#FilterList": {
          "type": "list",
          "member": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#Filter"
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider": {
          "type": "union",
          "members": {
            "ActiveDirectoryIdentityProvider": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ActiveDirectoryIdentityProvider",
              "traits": {
                "smithy.api#documentation": "<p>An object that details an Active Directory identity provider.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#documentation":
 "<p>Details about an identity provider.</p>"
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary": {
          "type": "structure",
```

```
        "members": {
          "IdentityProvider": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
            "traits": {
              "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
              "smithy.api#required": {}
            }
          },
          "Settings": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#Settings",
            "traits": {
              "smithy.api#documentation": "<p>An object that details the registered identity providers product related configuration\n      settings such as the subnets to provision VPC endpoints.</p>",
              "smithy.api#required":
 {}
            }
          },
          "Product": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
              "smithy.api#required": {}
            }
          },
          "Status": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The status of an identity provider.</p>",
              "smithy.api#required": {}
            }
          },
          "FailureMessage": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The failure message associated with an identity provider.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation":
 "<p>Describes an identity provider.</p>"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummaryList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary"
        }
```

```
    },
    "com.amazonaws.licensemanagerusersubscriptions#InstanceSummary": {
      "type": "structure",
      "members": {
        "InstanceId": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The ID of the EC2 instance, which provides user-based
subscriptions.</p>",
            "smithy.api#required": {}
          }
        },
        "Status": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The status
 of an EC2 instance resource.</p>",
            "smithy.api#required": {}
          }
        },
        "Products": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#StringList",
          "traits": {
            "smithy.api#documentation": "<p>A list of provided user-based subscription products.</p>",
            "smithy.api#required": {}
          }
        },
        "LastStatusCheckDate": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The date of the last status check.</p>"
          }
        },
        "StatusMessage": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The status message for an EC2 instance.</p>"
          }

    }
      },
      "traits": {
        "smithy.api#documentation": "<p>Describes an EC2 instance providing user-based subscriptions.</p>"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#InstanceSummaryList": {
      "type": "list",
      "member": {
```

```
            "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceSummary"
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummary": {
          "type": "structure",
          "members": {
            "Username": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The user name from the identity provider for the user.</p>",
                "smithy.api#required": {}
              }
            },
            "InstanceId": {
              "target": "smithy.api#String",
              "traits":
{
                "smithy.api#documentation": "<p>The ID of the EC2 instance, which provides user-based
subscriptions.</p>",
                "smithy.api#required": {}
              }
            },
            "IdentityProvider": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
              "traits": {
                "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
                "smithy.api#required": {}
              }
            },
            "Status": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The status of a user associated with an EC2 instance.</p>",
                "smithy.api#required": {}
              }
            },
            "StatusMessage": {
              "target": "smithy.api#String",
               "traits": {
                "smithy.api#documentation": "<p>The status message for users of an EC2 instance.</p>"
              }
            },
            "Domain": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The domain name of the user.</p>"
              }
            },
```

```
            "AssociationDate": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The date a user was associated with an EC2 instance.</p>"
               }
            },
            "DisassociationDate": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The date a user was disassociated from an EC2 instance.</p>"
               }
            }

   },
         "traits": {
            "smithy.api#documentation": "<p>Describes users of an EC2 instance providing user-based
subscriptions.</p>"
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummaryList": {
         "type": "list",
         "member": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummary"
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#InternalServerException": {
         "type": "structure",
         "members": {
            "message": {
               "target": "smithy.api#String"
            }
         },
         "traits": {
            "smithy.api#documentation": "<p>An exception occurred with the service.</p>",
            "smithy.api#error": "server"
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#LicenseManagerUserSubscriptions": {
         "type": "service",

       "version": "2018-05-10",
         "operations": [
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#AssociateUser"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProvider"
            },
```

```
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#DisassociateUser"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProviders"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListInstances"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptions"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociations"

},
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProvider"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscription"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscription"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettings"
        }
      ],
      "traits": {
        "aws.api#service": {
          "sdkId": "License Manager User Subscriptions",
          "arnNamespace": "license-manager-user-subscriptions",
          "cloudTrailEventSource": "license-manager-user-subscriptions.amazonaws.com"
        },
        "aws.auth#sigv4": {
          "name": "license-manager-user-subscriptions"
         },
        "aws.protocols#restJson1": {},
        "smithy.api#cors": {
          "additionalAllowedHeaders": [
            "*",
            "content-type",
            "x-amz-content-sha256",
            "x-amz-user-agent",
            "x-amzn-platform-id",
            "x-amzn-trace-id",
            "content-length",
```

```
                "x-api-key",
                "authorization",
                "x-amz-date",
                "x-amz-security-token",
                "Access-Control-Allow-Headers",
                "Access-Control-Allow-Methods",
                "Access-Control-Allow-Origin"
            ],
            "additionalExposedHeaders": [
                "x-amzn-errortype",
                "x-amzn-requestid",
                "x-amzn-trace-id"

]
        },
        "smithy.api#documentation": "<p>With License Manager, you can create user-based subscriptions to utilize licensed software with\n      a per user subscription fee on Amazon EC2 instances.</p>",
        "smithy.api#title": "AWS License Manager User Subscriptions",
        "smithy.rules#endpointRuleSet": {
            "version": "1.0",
            "parameters": {
                "Region": {
                    "builtIn": "AWS::Region",
                    "required": false,
                    "documentation": "The AWS region used to dispatch the request.",
                    "type": "String"
                },
                "UseDualStack": {
                    "builtIn": "AWS::UseDualStack",
                    "required": true,
                    "default": false,
                    "documentation": "When true, use the dual-stack
 endpoint. If the configured endpoint does not support dual-stack, dispatching the request MAY return an error.",
                    "type": "Boolean"
                },
                "UseFIPS": {
                    "builtIn": "AWS::UseFIPS",
                    "required": true,
                    "default": false,
                    "documentation": "When true, send this request to the FIPS-compliant regional endpoint. If the configured endpoint does not have a FIPS compliant endpoint, dispatching the request will return an error.",
                    "type": "Boolean"
                },
                "Endpoint": {
                    "builtIn": "SDK::Endpoint",
                    "required": false,
                    "documentation": "Override the endpoint used to send this request",
                    "type": "String"
```

```
            }

    },
        "rules": [
            {
                "conditions": [
                    {
                        "fn": "isSet",
                        "argv": [
                            {
                                "ref": "Endpoint"
                            }
                        ]
                    }
                ],
                "type": "tree",
                "rules": [
                    {
                        "conditions": [
                            {
                                "fn": "booleanEquals",
                                "argv": [
                                    {
                                        "ref": "UseFIPS"
                                    },

                                    true
                                    ]
                            }
                        ],
                        "error": "Invalid Configuration: FIPS and custom endpoint are not supported",
                        "type": "error"
                    },
                    {
                        "conditions": [
                            {
                                "fn": "booleanEquals",
                                "argv": [
                                    {
                                        "ref": "UseDualStack"
                                    },
                                    true
                                ]
                            }
                        ],

        "error": "Invalid Configuration: Dualstack and custom endpoint are not supported",
                        "type": "error"
```

```
            },
            {
              "conditions": [],
              "endpoint": {
                "url": {
                  "ref": "Endpoint"
                },
                "properties": {},
                "headers": {}
              },
              "type": "endpoint"
            }
          ]
        },
        {
          "conditions": [
            {
              "fn": "isSet",
              "argv": [

    {
                  "ref": "Region"
                }
              ]
            }
          ],
          "type": "tree",
          "rules": [
            {
              "conditions": [
                {
                  "fn": "aws.partition",
                  "argv": [
                    {
                      "ref": "Region"
                    }
                  ],
                  "assign": "PartitionResult"
                }
              ],
              "type": "tree",

"rules": [
                {
                  "conditions": [
                    {
                      "fn": "booleanEquals",
                      "argv": [
```

```
                {
                  "ref": "UseFIPS"
                },
                true
              ]
            },
            {
              "fn": "booleanEquals",
              "argv": [
                {
                  "ref": "UseDualStack"

                },
                true
              ]
            }
          ],
          "type": "tree",
          "rules": [
            {
              "conditions": [
                {
                  "fn": "booleanEquals",
                  "argv": [
                    true,
                    {
                      "fn": "getAttr",

"argv": [
                        {
                          "ref": "PartitionResult"
                        },
                        "supportsFIPS"
                      ]
                    }
                  ]
                },
                {
                  "fn": "booleanEquals",
                  "argv": [
                    true,
                    {

        "fn": "getAttr",
                        "argv": [
                          {
                            "ref": "PartitionResult"
                          },
```

```
                                    "supportsDualStack"
                                ]
                            }
                        ]
                    }
                ],
                "type": "tree",
                "rules": [
                    {

            "conditions": [],
                        "endpoint": {
                            "url": "https://license-manager-user-subscriptions-
fips.{Region}.{PartitionResult#dualStackDnsSuffix}",
                            "properties": {},
                            "headers": {}
                        },
                        "type": "endpoint"
                    }
                ]
            },
            {
                "conditions": [],
                "error": "FIPS and DualStack are enabled, but this partition does not support one or
both",
                 "type": "error"
            }
        ]
    },
    {
        "conditions": [
            {
                "fn": "booleanEquals",
                "argv": [
                    {
                        "ref": "UseFIPS"
                    },
                    true
                ]
            }
        ],
        "type": "tree",

      "rules": [
            {
                "conditions": [
                    {
                        "fn": "booleanEquals",
```

```
                "argv": [
                  true,
                  {
                    "fn": "getAttr",
                    "argv": [
                      {
                        "ref": "PartitionResult"
                      },
                      "supportsFIPS"

                ]
                    }
                ]
              }
            ],
            "type": "tree",
            "rules": [
              {
                "conditions": [],
                "endpoint": {
                  "url": "https://license-manager-user-subscriptions-
fips.{Region}.{PartitionResult#dnsSuffix}",
                  "properties": {},
                  "headers": {}

        },
                "type": "endpoint"
              }
            ]
          },
          {
            "conditions": [],
            "error": "FIPS is enabled but this partition does not support FIPS",
            "type": "error"
          }
        ]
      },
      {
        "conditions": [
          {
            "fn": "booleanEquals",
            "argv": [
              {
                "ref": "UseDualStack"
              },
              true
            ]
          }
```

```
                ],
                "type": "tree",
                "rules": [
                    {
                        "conditions": [
                            {
                                "fn": "booleanEquals",
                                "argv": [
                                    true,
                                    {

                                     "fn": "getAttr",
                                        "argv": [
                                            {
                                                "ref": "PartitionResult"
                                            },
                                            "supportsDualStack"
                                        ]
                                    }
                                ]
                            }
                        ],
                        "type": "tree",
                        "rules": [
                            {

                               "conditions": [],
                                "endpoint": {
                                    "url": "https://license-manager-user-
subscriptions.{Region}.{PartitionResult#dualStackDnsSuffix}",
                                    "properties": {},
                                    "headers": {}
                                },
                                "type": "endpoint"
                            }
                        ]
                    },
                    {
                        "conditions": [],
                        "error": "DualStack is enabled but this partition does
not support DualStack",
                        "type": "error"
                    }
                ]
            },
            {
                "conditions": [],
                "endpoint": {
```

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                                "url": "https://license-manager-user-
subscriptions.{Region}.{PartitionResult#dnsSuffix}",
                                "properties": {},
                                "headers": {}
                            },
                            "type": "endpoint"
                        }
                    ]
                }
            ]
        },
        {
            "conditions":
[],
            "error": "Invalid Configuration: Missing Region",
            "type": "error"
        }
    ]
},
"smithy.rules#endpointTests": {
    "testCases": [
        {
            "documentation": "For region us-east-1 with FIPS enabled and DualStack enabled",
            "expect": {
                "endpoint": {
                    "url": "https://license-manager-user-subscriptions-fips.us-east-1.api.aws"
                }
            },
            "params": {
                "Region": "us-east-1",
                "UseFIPS": true,
                "UseDualStack": true
            }
        },
        {
            "documentation":
"For region us-east-1 with FIPS enabled and DualStack disabled",
            "expect": {
                "endpoint": {
                    "url": "https://license-manager-user-subscriptions-fips.us-east-1.amazonaws.com"
                }
            },
            "params": {
                "Region": "us-east-1",
                "UseFIPS": true,
                "UseDualStack": false
            }
        },
```

```
    {
      "documentation": "For region us-east-1 with FIPS disabled and DualStack enabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-user-subscriptions.us-east-1.api.aws"
        }
      },

    "params": {
        "Region": "us-east-1",
        "UseFIPS": false,
        "UseDualStack": true
      }
    },
    {
      "documentation": "For region us-east-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-user-subscriptions.us-east-1.amazonaws.com"
        }
      },
      "params": {
        "Region": "us-east-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region cn-north-1 with
 FIPS enabled and DualStack enabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-user-subscriptions-fips.cn-north-
1.api.amazonwebservices.com.cn"
        }
      },
      "params": {
        "Region": "cn-north-1",
        "UseFIPS": true,
        "UseDualStack": true
      }
    },
    {
      "documentation": "For region cn-north-1 with FIPS enabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-user-subscriptions-fips.cn-north-1.amazonaws.com.cn"
        }
```

```
        },

    "params": {
            "Region": "cn-north-1",
            "UseFIPS": true,
            "UseDualStack": false
        }
      },
      {
        "documentation": "For region cn-north-1 with FIPS disabled and DualStack enabled",
        "expect": {
          "endpoint": {
            "url": "https://license-manager-user-subscriptions.cn-north-1.api.amazonwebservices.com.cn"
          }
        },
        "params": {
          "Region": "cn-north-1",
          "UseFIPS": false,
          "UseDualStack": true
        }
      },
      {
        "documentation": "For region cn-north-1
with FIPS disabled and DualStack disabled",
        "expect": {
          "endpoint": {
            "url": "https://license-manager-user-subscriptions.cn-north-1.amazonaws.com.cn"
          }
        },
        "params": {
          "Region": "cn-north-1",
          "UseFIPS": false,
          "UseDualStack": false
        }
      },
      {
        "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack enabled",
        "expect": {
          "endpoint": {
            "url": "https://license-manager-user-subscriptions-fips.us-gov-east-1.api.aws"
          }
        },

    "params": {
            "Region": "us-gov-east-1",
            "UseFIPS": true,
            "UseDualStack": true
        }
```

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    },
    {
      "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-user-subscriptions-fips.us-gov-east-1.amazonaws.com"
        }
      },
      "params": {
        "Region": "us-gov-east-1",
        "UseFIPS": true,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region us-gov-east-1
with FIPS disabled and DualStack enabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-user-subscriptions.us-gov-east-1.api.aws"
        }
      },
      "params": {
        "Region": "us-gov-east-1",
        "UseFIPS": false,
        "UseDualStack": true
      }
    },
    {
      "documentation": "For region us-gov-east-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-user-subscriptions.us-gov-east-1.amazonaws.com"
        }
      },

  "params": {
        "Region": "us-gov-east-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack enabled",
      "expect": {
        "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
      },
      "params": {
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```
            "Region": "us-iso-east-1",
            "UseFIPS": true,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack disabled",
          "expect":
{
            "endpoint": {
              "url": "https://license-manager-user-subscriptions-fips.us-iso-east-1.c2s.ic.gov"
            }
          },
          "params": {
            "Region": "us-iso-east-1",
            "UseFIPS": true,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack enabled",
          "expect": {
            "error": "DualStack is enabled but this partition does not support DualStack"
          },
          "params": {
            "Region": "us-iso-east-1",
            "UseFIPS": false,
            "UseDualStack":
true
          }
        },
        {
          "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-user-subscriptions.us-iso-east-1.c2s.ic.gov"
            }
          },
          "params": {
            "Region": "us-iso-east-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack enabled",
          "expect": {
            "error": "FIPS and DualStack are enabled, but
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this partition does not support one or both"
                },
                "params": {
                  "Region": "us-isob-east-1",
                  "UseFIPS": true,
                  "UseDualStack": true
                }
              },
              {
                "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack disabled",
                "expect": {
                  "endpoint": {
                    "url": "https://license-manager-user-subscriptions-fips.us-isob-east-1.sc2s.sgov.gov"
                  }
                },
                "params": {
                  "Region": "us-isob-east-1",
                  "UseFIPS": true,
                  "UseDualStack": false
                }

    },
              {
                "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack enabled",
                "expect": {
                  "error": "DualStack is enabled but this partition does not support DualStack"
                },
                "params": {
                  "Region": "us-isob-east-1",
                  "UseFIPS": false,
                  "UseDualStack": true
                }
              },
              {
                "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack disabled",
                "expect": {
                  "endpoint": {
                    "url": "https://license-manager-user-subscriptions.us-isob-east-1.sc2s.sgov.gov"
                  }
                },
                 "params": {
                  "Region": "us-isob-east-1",
                  "UseFIPS": false,
                  "UseDualStack": false
                }
              },
              {
                "documentation": "For custom endpoint with region set and fips disabled and dualstack disabled",
```

```
      "expect": {
        "endpoint": {
          "url": "https://example.com"
        }
      },
      "params": {
        "Region": "us-east-1",
        "UseFIPS": false,
        "UseDualStack": false,
        "Endpoint": "https://example.com"
      }
    },
    {

"documentation": "For custom endpoint with region not set and fips disabled and dualstack disabled",
      "expect": {
        "endpoint": {
          "url": "https://example.com"
        }
      },
      "params": {
        "UseFIPS": false,
        "UseDualStack": false,
        "Endpoint": "https://example.com"
      }
    },
    {
      "documentation": "For custom endpoint with fips enabled and dualstack disabled",
      "expect": {
        "error": "Invalid Configuration: FIPS and custom endpoint are not supported"
      },
      "params": {
        "Region": "us-east-1",
         "UseFIPS": true,
        "UseDualStack": false,
        "Endpoint": "https://example.com"
      }
    },
    {
      "documentation": "For custom endpoint with fips disabled and dualstack enabled",
      "expect": {
        "error": "Invalid Configuration: Dualstack and custom endpoint are not supported"
      },
      "params": {
        "Region": "us-east-1",
        "UseFIPS": false,
        "UseDualStack": true,
        "Endpoint": "https://example.com"
```

```
                }
            },
            {
                "documentation": "Missing region",
                "expect": {
                    "error": "Invalid Configuration: Missing Region"
                }
            }
        ],
        "version": "1.0"
    }
  }
},
"com.amazonaws.licensemanagerusersubscriptions#ListIdentityProviders": {
  "type": "operation",
  "input": {
    "target": "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProvidersRequest"
  },
  "output": {
    "target": "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProvidersResponse"
  },
  "errors": [
    {
      "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
    },
    {
      "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
    },
    {
      "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
     },
    {
      "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
    },
    {
      "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
    },
    {
      "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
    },
    {
      "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
    }
  ],
  "traits": {
    "smithy.api#documentation": "<p>Lists the identity providers for user-based subscriptions.</p>",
    "smithy.api#http": {
      "code": 200,
```

```
            "method": "POST",
            "uri": "/identity-provider/ListIdentityProviders"
          },
          "smithy.api#paginated":
{
            "inputToken": "NextToken",
            "outputToken": "NextToken",
            "pageSize": "MaxResults",
            "items": "IdentityProviderSummaries"
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProvidersRequest": {
        "type": "structure",
        "members": {
          "MaxResults": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#BoxInteger",
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProvidersResponse":
{
        "type": "structure",
        "members": {
          "IdentityProviderSummaries": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummaryList",
            "traits": {
              "smithy.api#documentation": "<p>Metadata that describes the list identity providers operation.</p>",
              "smithy.api#required": {}
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        }
      },
```

```
"com.amazonaws.licensemanagerusersubscriptions#ListInstances": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#ListInstancesRequest"
    },
    "output": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#ListInstancesResponse"
    },
    "errors": [
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
        }
    ],
    "traits": {
        "smithy.api#documentation": "<p>Lists the EC2 instances providing user-based subscriptions.</p>",
        "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/instance/ListInstances"
        },
        "smithy.api#paginated": {
            "inputToken": "NextToken",
            "outputToken": "NextToken",
            "pageSize": "MaxResults",
            "items": "InstanceSummaries"
        }
    }
},
"com.amazonaws.licensemanagerusersubscriptions#ListInstancesRequest": {
    "type": "structure",
```

```
        "members": {
          "MaxResults": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#BoxInteger",
             "traits": {
               "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
             }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          },
          "Filters": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#FilterList",
            "traits": {
              "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those
that match one or\n      more sets of key-value pairs that you specify.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListInstancesResponse": {
        "type":
 "structure",
        "members": {
          "InstanceSummaries": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceSummaryList",
            "traits": {
              "smithy.api#documentation": "<p>Metadata that describes the list instances operation.</p>"
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptions": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptionsRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptionsResponse"
```

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        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Lists the user-based subscription products available from an identity provider.</p>",
          "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/user/ListProductSubscriptions"
          },
          "smithy.api#paginated": {
            "inputToken": "NextToken",
            "outputToken": "NextToken",
            "pageSize": "MaxResults",
            "items": "ProductUserSummaries"
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptionsRequest": {
        "type": "structure",
        "members": {
          "Product": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The name
```

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of the user-based subscription product.</p>",
                    "smithy.api#required": {}
                }
            },
            "IdentityProvider": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
                "traits": {
                    "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
                    "smithy.api#required": {}
                }
            },
            "MaxResults": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#BoxInteger",
                "traits": {
                    "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
                }
            },
            "Filters": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#FilterList",
                "traits": {

  "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those that match
one or\n      more sets of key-value pairs that you specify.</p>"
                }
            },
            "NextToken": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>Token for the next set of results.</p>"
                }
            }
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptionsResponse": {
        "type": "structure",
        "members": {
            "ProductUserSummaries": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummaryList",
                "traits": {
                    "smithy.api#documentation": "<p>Metadata that describes the list product subscriptions
operation.</p>"
                }
            },

     "NextToken": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>Token for the next set of results.</p>"
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            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociations": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociationsRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociationsResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
          },
          {
            "target":
"com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Lists user associations for an identity provider.</p>",
          "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/user/ListUserAssociations"
          },
          "smithy.api#paginated":
{
            "inputToken": "NextToken",
            "outputToken": "NextToken",
            "pageSize": "MaxResults",
```

```
            "items": "InstanceUserSummaries"
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociationsRequest": {
        "type": "structure",
        "members": {
          "InstanceId": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The ID of the EC2 instance, which provides user-based
subscriptions.</p>",
              "smithy.api#required": {}
            }
          },
          "IdentityProvider": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
            "traits": {
              "smithy.api#documentation": "<p>An object that specifies details for the identity
 provider.</p>",
              "smithy.api#required": {}
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#BoxInteger",
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          },
          "Filters": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#FilterList",
            "traits": {
              "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those
that match one or\n      more sets of key-value pairs that you specify.</p>"
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for
 the next set of results.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociationsResponse": {
        "type": "structure",
        "members": {
```

```
        "InstanceUserSummaries": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummaryList",
          "traits": {
            "smithy.api#documentation": "<p>Metadata that describes the list user association operation.</p>"
          }
        },
        "NextToken": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>Token for the next set of results.</p>"
          }
        }
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummary": {
      "type": "structure",
      "members": {

      "Username": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The user name from the identity provider of the user.</p>",
              "smithy.api#required": {}
            }
          },
          "Product": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
              "smithy.api#required": {}
            }
          },
          "IdentityProvider": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
            "traits": {
              "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
              "smithy.api#required": {}
            }

    },
          "Status": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The status of a product for a user.</p>",
              "smithy.api#required": {}
            }
          },
          "StatusMessage": {
```

```
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The status message for a product for a user.</p>"
            }
          },
          "Domain": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The domain name of the user.</p>"
            }
          },
          "SubscriptionStartDate": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The
start date of a subscription.</p>"
            }
          },
          "SubscriptionEndDate": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The end date of a subscription.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>The summary of the user-based subscription products for a user.</p>"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummaryList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummary"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProvider": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProviderRequest"
         },
        "output": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProviderResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
          },
          {
```

```
                "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
             },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Registers an identity provider for user-based subscriptions.</p>",
            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/identity-provider/RegisterIdentityProvider"
            },
            "smithy.api#idempotent": {}
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProviderRequest": {
        "type": "structure",
        "members": {
            "IdentityProvider": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
                "traits": {
                    "smithy.api#documentation": "<p>An object that specifies details for the identity
provider.</p>",
                    "smithy.api#required": {}
                }
            },
            "Product": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
                    "smithy.api#required": {}
                }
            },
            "Settings": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#Settings",
```

```
            "traits": {
                "smithy.api#documentation": "<p>The registered identity providers product related configuration settings such as the\n      subnets to provision VPC endpoints.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProviderResponse": {
        "type": "structure",
        "members": {
          "IdentityProviderSummary":
 {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary",
            "traits": {
              "smithy.api#documentation": "<p>Metadata that describes the results of an identity provider operation.</p>",
              "smithy.api#required": {}
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException": {
        "type": "structure",
        "members": {
          "message": {
            "target": "smithy.api#String"
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>The resource couldn't be found.</p>",
          "smithy.api#error": "client",
          "smithy.api#httpError": 404
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#SecurityGroup": {
        "type": "string",

    "traits": {
          "smithy.api#length": {
            "min": 5,
            "max": 200
          },
          "smithy.api#pattern": "^sg-(([0-9a-z]{8})|([0-9a-z]{17}))$"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException": {
        "type": "structure",
        "members": {
```

```
            "message": {
                "target": "smithy.api#String"
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>The request failed because a service quota is exceeded.</p>",
            "smithy.api#error": "client"
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#Settings": {
        "type": "structure",
        "members": {
            "Subnets": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#Subnets",
                "traits": {
                    "smithy.api#documentation":
"<p>The subnets defined for the registered identity provider.</p>",
                    "smithy.api#length": {
                        "min": 1
                    },
                    "smithy.api#required": {}
                }
            },
            "SecurityGroupId": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#SecurityGroup",
                "traits": {
                    "smithy.api#documentation": "<p>A security group ID that allows inbound TCP port 1688
communication between resources in\n      your VPC and the VPC endpoint for activation servers.</p>",
                    "smithy.api#required": {}
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>The registered identity providers product related configuration settings
such as the\n      subnets to provision VPC endpoints, and the security group ID that
 is associated with the VPC\n      endpoints. The security group should permit inbound TCP port 1688
communication from resources\n      in the VPC.</p>"
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscription": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscriptionRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscriptionResponse"
        },
        "errors": [
```

```
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Starts a product subscription for a user with the specified identity provider.</p>\n <note>\n <p>Your estimated bill for charges on the number of users and related costs will take 48\n hours to appear for billing periods that haven't closed (marked as <b>Pending</b> billing status) in Amazon Web Services Billing.
 For more information, see <a href=\"https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/invoice.html\">Viewing your\n monthly charges</a> in the <i>Amazon Web Services Billing User Guide</i>.</p>\n </note>",
            "smithy.api#http": {
              "code": 200,
              "method": "POST",
              "uri": "/user/StartProductSubscription"
            }
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscriptionRequest": {
          "type": "structure",
          "members": {
            "Username": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The user name from the identity provider of the user.</p>",
                "smithy.api#required": {}
              }
            },
            "IdentityProvider": {
```

```
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
             "traits": {
               "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
               "smithy.api#required": {}
             }
           },
           "Product": {
             "target": "smithy.api#String",
             "traits": {
               "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
               "smithy.api#required": {}
             }
           },
           "Domain": {
             "target": "smithy.api#String",
             "traits": {
               "smithy.api#documentation": "<p>The domain name of the user.</p>"
             }
           }
         }
       },
       "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscriptionResponse": {
         "type": "structure",
          "members": {
           "ProductUserSummary": {
             "target": "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummary",
             "traits": {
               "smithy.api#documentation": "<p>Metadata that describes the start product subscription
operation.</p>",
               "smithy.api#required": {}
             }
           }
         }
       },
       "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscription": {
         "type": "operation",
         "input": {
           "target": "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscriptionRequest"
         },
         "output": {
           "target": "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscriptionResponse"
         },
         "errors": [
           {
             "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"

   },
           {
```

```
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Stops a product subscription for a user with the specified identity
provider.</p>",
          "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/user/StopProductSubscription"
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscriptionRequest": {
        "type": "structure",
        "members": {
          "Username": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The user name from the identity provider for the user.</p>",
              "smithy.api#required": {}
            }
          },
          "IdentityProvider": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
            "traits": {
              "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
              "smithy.api#required":
{}
            }
          },
          "Product": {
            "target": "smithy.api#String",
```

```
            "traits": {
              "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
              "smithy.api#required": {}
            }
          },
          "Domain": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The domain name of the user.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscriptionResponse": {
        "type": "structure",
        "members": {
          "ProductUserSummary": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummary",
            "traits": {
              "smithy.api#documentation":
"<p>Metadata that describes the start product subscription operation.</p>",
              "smithy.api#required": {}
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#StringList": {
        "type": "list",
        "member": {
          "target": "smithy.api#String"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#Subnet": {
        "type": "string",
        "traits": {
          "smithy.api#pattern": "subnet-[a-z0-9]{8,17}"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#Subnets": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#Subnet"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException": {
        "type": "structure",
        "members": {
          "message": {
```

```
            "target": "smithy.api#String"
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>The request was denied because of request throttling. Retry the
request.</p>",
          "smithy.api#error": "client"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettings": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettingsRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettingsResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Updates additional product configuration settings for the registered
identity\n      provider.</p>",
          "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/identity-provider/UpdateIdentityProviderSettings"
          },
          "smithy.api#idempotent": {}
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettingsRequest": {
        "type": "structure",
        "members": {
          "IdentityProvider": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
```

```
            "traits": {
              "smithy.api#required": {}
            }
          },
          "Product": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
              "smithy.api#required": {}
            }
          },
          "UpdateSettings": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#UpdateSettings",
            "traits": {
              "smithy.api#documentation": "<p>Updates the registered identity providers product related configuration settings. You can\n      update any combination of settings in a single operation such as the:</p>\n <ul>\n <li>\n <p>Subnets which you want to add to provision VPC endpoints.</p>\n </li>\n <li>\n <p>Subnets which you want to remove the VPC endpoints from.</p>\n </li>\n <li>\n <p>Security group ID which permits traffic to the VPC endpoints.</p>\n </li>\n </ul>",
              "smithy.api#required": {}
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettingsResponse": {
        "type": "structure",
        "members": {
          "IdentityProviderSummary": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary",
            "traits": {
              "smithy.api#required": {}
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#UpdateSettings": {
        "type": "structure",
        "members": {
          "AddSubnets": {

           "target": "com.amazonaws.licensemanagerusersubscriptions#Subnets",
            "traits": {
              "smithy.api#documentation": "<p>The ID of one or more subnets in which License Manager will create a VPC endpoint for products that\n      require connectivity to activation servers.</p>",
              "smithy.api#required": {}
            }
          },
          "RemoveSubnets": {
```

```
            "target": "com.amazonaws.licensemanagerusersubscriptions#Subnets",
            "traits": {
              "smithy.api#documentation": "<p>The ID of one or more subnets to remove.</p>",
              "smithy.api#required": {}
            }
          },
          "SecurityGroupId": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#SecurityGroup",
            "traits": {
              "smithy.api#documentation": "<p>A security group ID
 that allows inbound TCP port 1688 communication between resources in\n      your VPC and the VPC endpoints for activation servers.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Updates the registered identity providers product related configuration settings such as\n      the subnets to provision VPC endpoints.</p>"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ValidationException": {
        "type": "structure",
        "members": {
          "message": {
            "target": "smithy.api#String"
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>A parameter is not valid.</p>",
          "smithy.api#error": "client"
        }
      }
    }
}
{
  "smithy": "2.0",
  "metadata": {
    "suppressions": [
      {
        "id": "HttpMethodSemantics",
        "namespace": "*"
      },
      {
        "id": "HttpResponseCodeSemantics",
        "namespace": "*"
      },
      {
        "id": "PaginatedTrait",
```

```
            "namespace": "*"
        },
        {
            "id": "HttpHeaderTrait",
            "namespace": "*"
        },
        {
            "id": "HttpUriConflict",
            "namespace": "*"
        },
        {
            "id": "Service",
            "namespace": "*"
        }
    ]
},
"shapes": {
    "com.amazonaws.licensemanager#AWSLicenseManager": {
        "type": "service",
        "version": "2018-08-01",
        "operations": [
            {
                "target": "com.amazonaws.licensemanager#AcceptGrant"
            },

 {
                "target": "com.amazonaws.licensemanager#CheckInLicense"
            },
            {
                "target": "com.amazonaws.licensemanager#CheckoutBorrowLicense"
            },
            {
                "target": "com.amazonaws.licensemanager#CheckoutLicense"
            },
            {
                "target": "com.amazonaws.licensemanager#CreateGrant"
            },
            {
                "target": "com.amazonaws.licensemanager#CreateGrantVersion"
            },
            {
                "target": "com.amazonaws.licensemanager#CreateLicense"
            },
            {
                "target": "com.amazonaws.licensemanager#CreateLicenseConfiguration"
            },
            {
                "target": "com.amazonaws.licensemanager#CreateLicenseConversionTaskForResource"
```

```
    },
    {
      "target": "com.amazonaws.licensemanager#CreateLicenseManagerReportGenerator"
    },
    {
      "target": "com.amazonaws.licensemanager#CreateLicenseVersion"
    },
    {
      "target": "com.amazonaws.licensemanager#CreateToken"
    },
    {
      "target": "com.amazonaws.licensemanager#DeleteGrant"
    },
    {
      "target": "com.amazonaws.licensemanager#DeleteLicense"
    },
    {
      "target": "com.amazonaws.licensemanager#DeleteLicenseConfiguration"
    },
    {
      "target": "com.amazonaws.licensemanager#DeleteLicenseManagerReportGenerator"
    },
    {
      "target": "com.amazonaws.licensemanager#DeleteToken"
    },
    {
      "target": "com.amazonaws.licensemanager#ExtendLicenseConsumption"

  },
    {
      "target": "com.amazonaws.licensemanager#GetAccessToken"
    },
    {
      "target": "com.amazonaws.licensemanager#GetGrant"
    },
    {
      "target": "com.amazonaws.licensemanager#GetLicense"
    },
    {
      "target": "com.amazonaws.licensemanager#GetLicenseConfiguration"
    },
    {
      "target": "com.amazonaws.licensemanager#GetLicenseConversionTask"
    },
    {
      "target": "com.amazonaws.licensemanager#GetLicenseManagerReportGenerator"
    },
    {
```

```
    "target": "com.amazonaws.licensemanager#GetLicenseUsage"
  },
  {
    "target": "com.amazonaws.licensemanager#GetServiceSettings"
  },
  {
    "target": "com.amazonaws.licensemanager#ListAssociationsForLicenseConfiguration"
  },
  {
    "target": "com.amazonaws.licensemanager#ListDistributedGrants"
  },
  {
    "target": "com.amazonaws.licensemanager#ListFailuresForLicenseConfigurationOperations"
  },
  {
    "target": "com.amazonaws.licensemanager#ListLicenseConfigurations"
  },
  {
    "target": "com.amazonaws.licensemanager#ListLicenseConversionTasks"
  },
  {
    "target": "com.amazonaws.licensemanager#ListLicenseManagerReportGenerators"
  },
  {
    "target": "com.amazonaws.licensemanager#ListLicenses"
  },
  {
    "target": "com.amazonaws.licensemanager#ListLicenseSpecificationsForResource"
  },
  {

   "target": "com.amazonaws.licensemanager#ListLicenseVersions"
  },
  {
    "target": "com.amazonaws.licensemanager#ListReceivedGrants"
  },
  {
    "target": "com.amazonaws.licensemanager#ListReceivedGrantsForOrganization"
  },
  {
    "target": "com.amazonaws.licensemanager#ListReceivedLicenses"
  },
  {
    "target": "com.amazonaws.licensemanager#ListReceivedLicensesForOrganization"
  },
  {
    "target": "com.amazonaws.licensemanager#ListResourceInventory"
  },
```

```
            {
               "target": "com.amazonaws.licensemanager#ListTagsForResource"
            },
            {
               "target": "com.amazonaws.licensemanager#ListTokens"
            },
            {
               "target": "com.amazonaws.licensemanager#ListUsageForLicenseConfiguration"
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            {
               "target": "com.amazonaws.licensemanager#RejectGrant"
            },
            {
               "target": "com.amazonaws.licensemanager#TagResource"
            },
            {
               "target": "com.amazonaws.licensemanager#UntagResource"
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               "target": "com.amazonaws.licensemanager#UpdateLicenseConfiguration"
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            {
               "target": "com.amazonaws.licensemanager#UpdateLicenseManagerReportGenerator"
            },
            {
               "target": "com.amazonaws.licensemanager#UpdateLicenseSpecificationsForResource"
            },
            {
               "target": "com.amazonaws.licensemanager#UpdateServiceSettings"
            }
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            "aws.api#service": {
                "sdkId": "License Manager",
               "arnNamespace": "license-manager",
               "cloudFormationName": "LicenseManager",
               "cloudTrailEventSource": "licensemanager.amazonaws.com",
               "endpointPrefix": "license-manager"
            },
            "aws.auth#sigv4": {
               "name": "license-manager"
            },
            "aws.protocols#awsJson1_1": {},
            "smithy.api#documentation": "<p>License Manager makes it easier to manage licenses from software
vendors across multiple \n         Amazon Web Services accounts and on-premises servers.</p>",
            "smithy.api#title": "AWS License Manager",
            "smithy.api#xmlNamespace": {
               "uri": "https://license-manager.amazonaws.com/doc/2018_08_01"
```

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    "smithy.rules#endpointRuleSet": {
      "version": "1.0",
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          "builtIn": "AWS::Region",
          "required": false,
          "documentation": "The AWS region used to dispatch the request.",
          "type": "String"
        },
        "UseDualStack": {
          "builtIn": "AWS::UseDualStack",
          "required": true,
          "default": false,
          "documentation": "When true, use the dual-stack endpoint. If the configured endpoint does not
support dual-stack, dispatching the request MAY return an error.",
          "type": "Boolean"
        },
        "UseFIPS": {
          "builtIn": "AWS::UseFIPS",
          "required": true,
          "default": false,
          "documentation": "When true, send
 this request to the FIPS-compliant regional endpoint. If the configured endpoint does not have a FIPS compliant
endpoint, dispatching the request will return an error.",
          "type": "Boolean"
        },
        "Endpoint": {
          "builtIn": "SDK::Endpoint",
          "required": false,
          "documentation": "Override the endpoint used to send this request",
          "type": "String"
        }
      },
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              "argv": [
                {
                  "ref": "Endpoint"
                }
              ]

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          ],
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```

```
      "rules": [
        {
          "conditions": [
            {
              "fn": "booleanEquals",
              "argv": [
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                  "ref": "UseFIPS"
                },
                true
              ]
            }
          ],
          "error": "Invalid Configuration: FIPS and custom endpoint are not supported",
          "type": "error"
        },
        {

"conditions": [
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                },
                true
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            }
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          "error": "Invalid Configuration: Dualstack and custom endpoint are not supported",
          "type": "error"
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          "conditions": [],
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          "type": "endpoint"
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    },
    {
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        {
```

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                    "argv": [
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                    ],
                    "assign": "PartitionResult"
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                "rules": [
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                        "argv": [
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"UseFIPS"
                          },
                          true
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                        "argv": [
                          {
                            "ref": "UseDualStack"
                          },
                          true
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                    "rules": [
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                                                        "argv": [
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                                                            },
                                                            "supportsFIPS"
                                                        ]

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                                                ]
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                                                        "argv": [
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                                                                "ref": "PartitionResult"
                                                            },

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                                                        ]
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fips.{Region}.{PartitionResult#dualStackDnsSuffix}",
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                                                "type": "endpoint"
                                            }
```

```
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both",
                "type": "error"
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                        "argv": [
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                          },
                          "supportsFIPS"
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                    ]
                  }
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```
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                      "headers": {}
                    },
                    "type": "endpoint"
                  }
                ]
              },
              {
                "conditions": [],
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partition does not support FIPS",
                "type": "error"
              }
            ]
          },
          {
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                "fn": "booleanEquals",
                "argv": [
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                    "ref": "UseDualStack"
                  },
                  true
                ]
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                "conditions": [
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                    "argv": [
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                      {
                        "fn": "getAttr",
                        "argv": [
                          {
                            "ref": "PartitionResult"
                          },

    "supportsDualStack"
                          ]
```

```
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manager.{Region}.{PartitionResult#dualStackDnsSuffix}",
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                                        "headers": {}

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                                    "type": "endpoint"
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                            "type": "error"
                        }
                    ]
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                        "headers": {}
                    },
                    "type": "endpoint"
                }
            ]
        }
    ]
},
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    "type": "error"
}
]
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"smithy.rules#endpointTests": {
    "testCases": [
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                  "params": {
                    "Region": "af-south-1",
                    "UseFIPS": false,
                    "UseDualStack": false
                  }
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                {
                  "documentation": "For region ap-east-1 with FIPS disabled and DualStack disabled",
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                    "UseFIPS": false,
                    "UseDualStack": false
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                  "expect": {
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                    "Region": "ap-northeast-1",
                    "UseFIPS": false,
                    "UseDualStack": false
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                  "documentation": "For region ap-northeast-2 with FIPS disabled and DualStack disabled",
                  "expect": {
                    "endpoint": {
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                  },
                  "params": {
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            "UseDualStack": false
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          "expect": {
            "endpoint": {
              "url": "https://license-manager.ap-northeast-3.amazonaws.com"
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          "params": {
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            "UseFIPS": false,
            "UseDualStack": false
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            "endpoint": {
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            }
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          "params": {
            "Region": "ap-south-1",
            "UseFIPS": false,
            "UseDualStack": false
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          "documentation": "For region ap-southeast-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager.ap-southeast-1.amazonaws.com"

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            },
          "params": {
            "Region": "ap-southeast-1",
            "UseFIPS": false,
            "UseDualStack": false
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        },
        {
          "documentation": "For region ap-southeast-2 with FIPS disabled and DualStack disabled",
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      "expect": {
        "endpoint": {
          "url": "https://license-manager.ap-southeast-2.amazonaws.com"
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        "Region": "ap-southeast-2",
        "UseFIPS": false,
        "UseDualStack": false
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    },
    {

"documentation": "For region ap-southeast-3 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager.ap-southeast-3.amazonaws.com"
        }
      },
      "params": {
        "Region": "ap-southeast-3",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region ca-central-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager.ca-central-1.amazonaws.com"
        }
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     "params": {
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        "UseFIPS": false,
        "UseDualStack": false
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      "documentation": "For region eu-central-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager.eu-central-1.amazonaws.com"
        }
      },
      "params": {
        "Region": "eu-central-1",
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disabled and DualStack disabled",
          "expect": {
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              "url": "https://license-manager.eu-north-1.amazonaws.com"
            }
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          "params": {
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            "UseFIPS": false,
            "UseDualStack": false
          }
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        {
          "documentation": "For region eu-south-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager.eu-south-1.amazonaws.com"
            }
          },
          "params": {
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"eu-south-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region eu-west-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager.eu-west-1.amazonaws.com"
            }
          },
          "params": {
            "Region": "eu-west-1",
            "UseFIPS": false,
            "UseDualStack": false
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        },
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          "documentation": "For region eu-west-2 with FIPS disabled and DualStack disabled",
          "expect": {
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      "endpoint": {
          "url": "https://license-manager.eu-west-2.amazonaws.com"
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        "Region": "eu-west-2",
        "UseFIPS": false,
        "UseDualStack": false
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    },
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      "documentation": "For region eu-west-3 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
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        "UseFIPS": false,

"UseDualStack": false
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      "expect": {
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      "params": {
        "Region": "me-south-1",
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        "UseDualStack": false
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          "url": "https://license-manager.sa-east-1.amazonaws.com"
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```
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          "params": {
            "Region": "us-east-1",
            "UseFIPS": false,
            "UseDualStack": false
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          "expect": {
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              "url": "https://license-manager-fips.us-east-1.amazonaws.com"
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          "params": {
            "Region": "us-east-1",
            "UseFIPS": true,
            "UseDualStack": false
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        },
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          "documentation": "For region us-east-2 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager.us-east-2.amazonaws.com"
            }

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          "params": {
            "Region": "us-east-2",
            "UseFIPS": false,
            "UseDualStack": false
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        },
        {
          "documentation": "For region us-east-2 with FIPS enabled and DualStack disabled",
          "expect": {
            "endpoint": {
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            "url": "https://license-manager-fips.us-east-2.amazonaws.com"
          }
        },
        "params": {
          "Region": "us-east-2",
          "UseFIPS": true,
          "UseDualStack": false
        }
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      {
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us-west-1 with FIPS disabled and DualStack disabled",
        "expect": {
          "endpoint": {
            "url": "https://license-manager.us-west-1.amazonaws.com"
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        "params": {
          "Region": "us-west-1",
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          "UseDualStack": false
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            "UseDualStack": false
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          "params": {
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        "UseDualStack": false
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      "expect": {
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        }
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      "params": {
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        "UseFIPS": true,

        "UseDualStack": true
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        }
      },
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        "Region": "us-east-1",
        "UseFIPS": false,
        "UseDualStack": true
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    },
    {
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      "expect": {
        "endpoint": {
          "url":
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"https://license-manager.cn-north-1.amazonaws.com.cn"
            }
          },
          "params": {
            "Region": "cn-north-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region cn-northwest-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager.cn-northwest-1.amazonaws.com.cn"
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        },
        {
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            "endpoint": {
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            }
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          "params": {
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              "url": "https://license-manager-fips.cn-north-1.amazonaws.com.cn"
             }
          },
          "params": {
            "Region": "cn-north-1",
            "UseFIPS": true,
            "UseDualStack": false
          }
```

```
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        }
      },
      "params": {
        "Region": "cn-north-1",
        "UseFIPS": false,
        "UseDualStack": true
      }
    },

{
      "documentation": "For region us-gov-east-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager.us-gov-east-1.amazonaws.com"
        }
      },
      "params": {
        "Region": "us-gov-east-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-fips.us-gov-east-1.amazonaws.com"
        }
       },
      "params": {
        "Region": "us-gov-east-1",
        "UseFIPS": true,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region us-gov-west-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager.us-gov-west-1.amazonaws.com"
        }
      },
```

```
      "params": {
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        "UseDualStack": false
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"For region us-gov-west-1 with FIPS enabled and DualStack disabled",
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        "UseDualStack": false
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        }
      },

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        "UseDualStack": true
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        }
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        "UseFIPS": false,
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    },
    {
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disabled",
      "expect": {
        "endpoint": {
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        }
      },
      "params": {
        "Region": "us-iso-east-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack enabled",
      "expect": {
        "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
      },
      "params": {
        "Region": "us-iso-east-1",
        "UseFIPS": true,
         "UseDualStack": true
      }
    },
    {
      "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-fips.us-iso-east-1.c2s.ic.gov"
        }
      },
      "params": {
        "Region": "us-iso-east-1",
        "UseFIPS": true,
        "UseDualStack": false
      }
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      "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack enabled",
      "expect": {
        "error": "DualStack is enabled
but this partition does not support DualStack"
      },
      "params": {
        "Region": "us-iso-east-1",
        "UseFIPS": false,
        "UseDualStack": true
      }
```

```
    },
    {
      "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager.us-isob-east-1.sc2s.sgov.gov"
        }
      },
      "params": {
        "Region": "us-isob-east-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },

  {
      "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack enabled",
      "expect": {
        "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
      },
      "params": {
        "Region": "us-isob-east-1",
        "UseFIPS": true,
        "UseDualStack": true
      }
    },
    {
      "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-fips.us-isob-east-1.sc2s.sgov.gov"
        }
      },

"params": {
        "Region": "us-isob-east-1",
        "UseFIPS": true,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack enabled",
      "expect": {
        "error": "DualStack is enabled but this partition does not support DualStack"
      },
      "params": {
        "Region": "us-isob-east-1",
        "UseFIPS": false,
```

```
                "UseDualStack": true
            }
        },
        {
            "documentation": "For custom endpoint with region set and fips disabled and dualstack disabled",

    "expect": {
                "endpoint": {
                    "url": "https://example.com"
                }
            },
            "params": {
                "Region": "us-east-1",
                "UseFIPS": false,
                "UseDualStack": false,
                "Endpoint": "https://example.com"
            }
        },
        {
            "documentation": "For custom endpoint with region not set and fips disabled and dualstack
disabled",
            "expect": {
                "endpoint": {
                    "url": "https://example.com"
                }
            },
            "params": {
                "UseFIPS": false,

      "UseDualStack": false,
                "Endpoint": "https://example.com"
            }
        },
        {
            "documentation": "For custom endpoint with fips enabled and dualstack disabled",
            "expect": {
                "error": "Invalid Configuration: FIPS and custom endpoint are not supported"
            },
            "params": {
                "Region": "us-east-1",
                "UseFIPS": true,
                "UseDualStack": false,
                "Endpoint": "https://example.com"
            }
        },
        {
            "documentation": "For custom endpoint with fips disabled and dualstack enabled",
            "expect": {
```

```
                    "error":
"Invalid Configuration: Dualstack and custom endpoint are not supported"
                  },
                  "params": {
                    "Region": "us-east-1",
                    "UseFIPS": false,
                    "UseDualStack": true,
                    "Endpoint": "https://example.com"
                  }
                },
                {
                  "documentation": "Missing region",
                  "expect": {
                    "error": "Invalid Configuration: Missing Region"
                  }
                }
              ],
              "version": "1.0"
            }
          }
        },
        "com.amazonaws.licensemanager#AcceptGrant": {
          "type": "operation",
          "input": {
            "target": "com.amazonaws.licensemanager#AcceptGrantRequest"

},
          "output": {
            "target": "com.amazonaws.licensemanager#AcceptGrantResponse"
          },
          "errors": [
            {
              "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
              "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
              "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
              "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
              "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
              "target": "com.amazonaws.licensemanager#ServerInternalException"
```

```
            },
            {
               "target": "com.amazonaws.licensemanager#ValidationException"

   }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Accepts the specified grant.</p>"
         }
      },
      "com.amazonaws.licensemanager#AcceptGrantRequest": {
         "type": "structure",
         "members": {
            "GrantArn": {
               "target": "com.amazonaws.licensemanager#Arn",
               "traits": {
                  "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the grant.</p>",
                  "smithy.api#required": {}
               }
            }
         },
         "traits": {
            "smithy.api#input": {}
         }
      },
      "com.amazonaws.licensemanager#AcceptGrantResponse": {
         "type": "structure",
         "members": {
            "GrantArn": {
               "target": "com.amazonaws.licensemanager#Arn",
               "traits": {
                  "smithy.api#documentation": "<p>Grant
ARN.</p>"
               }
            },
            "Status": {
               "target": "com.amazonaws.licensemanager#GrantStatus",
               "traits": {
                  "smithy.api#documentation": "<p>Grant status.</p>"
               }
            },
            "Version": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Grant version.</p>"
               }
            }
         },
```

```
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanager#AccessDeniedException": {
      "type": "structure",
      "members": {
        "Message": {
          "target": "com.amazonaws.licensemanager#Message"
        }
      },
      "traits": {
        "aws.protocols#awsQueryError": {

"code": "ServiceAccessDenied",
          "httpResponseCode": 401
        },
        "smithy.api#documentation": "<p>Access to resource denied.</p>",
        "smithy.api#error": "client",
        "smithy.api#httpError": 401
      }
    },
    "com.amazonaws.licensemanager#ActivationOverrideBehavior": {
      "type": "enum",
      "members": {
        "DISTRIBUTED_GRANTS_ONLY": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "DISTRIBUTED_GRANTS_ONLY"
          }
        },
        "ALL_GRANTS_PERMITTED_BY_ISSUER": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "ALL_GRANTS_PERMITTED_BY_ISSUER"
          }
        }
      }
    },
    "com.amazonaws.licensemanager#AllowedOperation": {

   "type": "enum",
      "members": {
        "CREATE_GRANT": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "CreateGrant"
          }
```

```
            },
            "CHECKOUT_LICENSE": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "CheckoutLicense"
               }
            },
            "CHECKOUT_BORROW_LICENSE": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "CheckoutBorrowLicense"
               }
            },
            "CHECK_IN_LICENSE": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "CheckInLicense"
               }
            },
            "EXTEND_CONSUMPTION_LICENSE":
{
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "ExtendConsumptionLicense"
               }
            },
            "LIST_PURCHASED_LICENSES": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "ListPurchasedLicenses"
               }
            },
            "CREATE_TOKEN": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "CreateToken"
               }
            }
         }
      },
      "com.amazonaws.licensemanager#AllowedOperationList": {
         "type": "list",
         "member": {
            "target": "com.amazonaws.licensemanager#AllowedOperation"
         },
         "traits": {
            "smithy.api#length": {
               "min": 1,
```

```
            "max":
7
          }
        }
      },
      "com.amazonaws.licensemanager#Arn": {
        "type": "string",
        "traits": {
          "smithy.api#length": {
            "min": 0,
            "max": 2048
          },
          "smithy.api#pattern": "^arn:aws(-(cn|us-gov|iso-b|iso-c|iso-d))?:[A-Za-z0-9][A-Za-z0-9_/.-]{0,62}:[A-Za-
z0-9_/.-]{0,63}:[A-Za-z0-9_/.-]{0,63}:[A-Za-z0-9][A-Za-z0-9:_/+=,@.-]{0,1023}$"
        }
      },
      "com.amazonaws.licensemanager#ArnList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#Arn"
        }
      },
      "com.amazonaws.licensemanager#AuthorizationException": {
        "type": "structure",
        "members": {
          "Message": {
            "target": "com.amazonaws.licensemanager#Message"
          }
        },
        "traits": {
          "aws.protocols#awsQueryError":
{
            "code": "AuthorizationFailure",
            "httpResponseCode": 403
          },
          "smithy.api#documentation": "<p>The Amazon Web Services user account does not have permission to
perform the action. Check the IAM\n        policy associated with this account.</p>",
          "smithy.api#error": "client",
          "smithy.api#httpError": 403
        }
      },
      "com.amazonaws.licensemanager#AutomatedDiscoveryInformation": {
        "type": "structure",
        "members": {
          "LastRunTime": {
            "target": "com.amazonaws.licensemanager#DateTime",
            "traits": {
              "smithy.api#documentation": "<p>Time that automated discovery last ran.</p>"
```

```
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Describes automated discovery.</p>"
        }
      },

  "com.amazonaws.licensemanager#Boolean": {
        "type": "boolean",
        "traits": {
          "smithy.api#default": false
        }
      },
      "com.amazonaws.licensemanager#BorrowConfiguration": {
        "type": "structure",
        "members": {
          "AllowEarlyCheckIn": {
            "target": "com.amazonaws.licensemanager#BoxBoolean",
            "traits": {
              "smithy.api#documentation": "<p>Indicates whether early check-ins are allowed.</p>",
              "smithy.api#required": {}
            }
          },
          "MaxTimeToLiveInMinutes": {
            "target": "com.amazonaws.licensemanager#BoxInteger",
            "traits": {
              "smithy.api#documentation": "<p>Maximum time for the borrow configuration, in minutes.</p>",
              "smithy.api#required": {}
            }
          }

},
        "traits": {
          "smithy.api#documentation": "<p>Details about a borrow configuration.</p>"
        }
      },
      "com.amazonaws.licensemanager#BoxBoolean": {
        "type": "boolean"
      },
      "com.amazonaws.licensemanager#BoxInteger": {
        "type": "integer"
      },
      "com.amazonaws.licensemanager#BoxLong": {
        "type": "long"
      },
      "com.amazonaws.licensemanager#CheckInLicense": {
        "type": "operation",
```

```
        "input": {
            "target": "com.amazonaws.licensemanager#CheckInLicenseRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#CheckInLicenseResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"

      },
            {
                "target": "com.amazonaws.licensemanager#ConflictException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Checks in the specified license. Check in a license when it is no longer
in use.</p>"
        }
    },
    "com.amazonaws.licensemanager#CheckInLicenseRequest":
{
        "type": "structure",
        "members": {
            "LicenseConsumptionToken": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>License consumption token.</p>",
                    "smithy.api#required": {}
                }
```

```
            },
            "Beneficiary": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>License beneficiary.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#input": {}
         }
      },
      "com.amazonaws.licensemanager#CheckInLicenseResponse": {
         "type": "structure",
         "members": {},
         "traits": {
            "smithy.api#output": {}
         }
      },
      "com.amazonaws.licensemanager#CheckoutBorrowLicense":
{
         "type": "operation",
         "input": {
            "target": "com.amazonaws.licensemanager#CheckoutBorrowLicenseRequest"
         },
         "output": {
            "target": "com.amazonaws.licensemanager#CheckoutBorrowLicenseResponse"
         },
         "errors": [
            {
               "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
               "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
               "target": "com.amazonaws.licensemanager#EntitlementNotAllowedException"
            },
            {
               "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
               "target": "com.amazonaws.licensemanager#NoEntitlementsAllowedException"
            },
            {
               "target":
"com.amazonaws.licensemanager#RateLimitExceededException"
            },
```

```
            {
              "target": "com.amazonaws.licensemanager#RedirectException"
            },
            {
              "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
            },
            {
              "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
              "target": "com.amazonaws.licensemanager#UnsupportedDigitalSignatureMethodException"
            },
            {
              "target": "com.amazonaws.licensemanager#ValidationException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Checks out the specified license for offline use.</p>"
          }
        },
        "com.amazonaws.licensemanager#CheckoutBorrowLicenseRequest": {
          "type": "structure",
          "members":
{
            "LicenseArn": {
              "target": "com.amazonaws.licensemanager#Arn",
              "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license. The license must
use the borrow consumption configuration.</p>",
                "smithy.api#required": {}
              }
            },
            "Entitlements": {
              "target": "com.amazonaws.licensemanager#EntitlementDataList",
              "traits": {
                "smithy.api#documentation": "<p>License entitlements. Partial checkouts are not supported.</p>",
                "smithy.api#required": {}
              }
            },
            "DigitalSignatureMethod": {
              "target": "com.amazonaws.licensemanager#DigitalSignatureMethod",
              "traits": {
                "smithy.api#documentation": "<p>Digital signature method. The possible
 value is JSON Web Signature (JWS) algorithm PS384.\n         For more information, see <a
href=\"https://tools.ietf.org/html/rfc7518#section-3.5\">RFC 7518 Digital Signature with RSASSA-PSS</a>.</p>",
                "smithy.api#required": {}
              }
            },
```

```
            "NodeId": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Node ID.</p>"
              }
            },
            "CheckoutMetadata": {
              "target": "com.amazonaws.licensemanager#MetadataList",
              "traits": {
                "smithy.api#documentation": "<p>Information about constraints.</p>"
              }
            },
            "ClientToken": {
              "target": "com.amazonaws.licensemanager#ClientToken",
              "traits": {
                "smithy.api#documentation":
"<p>Unique, case-sensitive identifier that you provide to ensure the idempotency of the request.</p>",
                "smithy.api#required": {}
              }
            }
          },
          "traits": {
            "smithy.api#input": {}
          }
        },
        "com.amazonaws.licensemanager#CheckoutBorrowLicenseResponse": {
          "type": "structure",
          "members": {
            "LicenseArn": {
              "target": "com.amazonaws.licensemanager#Arn",
              "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>"
              }
            },
            "LicenseConsumptionToken": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>License consumption token.</p>"
              }
            },
            "EntitlementsAllowed":
{
              "target": "com.amazonaws.licensemanager#EntitlementDataList",
              "traits": {
                "smithy.api#documentation": "<p>Allowed license entitlements.</p>"
              }
            },
            "NodeId": {
```

```
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Node ID.</p>"
            }
          },
          "SignedToken": {
            "target": "com.amazonaws.licensemanager#SignedToken",
            "traits": {
              "smithy.api#documentation": "<p>Signed token.</p>"
            }
          },
          "IssuedAt": {
            "target": "com.amazonaws.licensemanager#ISO8601DateTime",
            "traits": {
              "smithy.api#documentation": "<p>Date and time at which the license checkout
is issued.</p>"
            }
          },
          "Expiration": {
            "target": "com.amazonaws.licensemanager#ISO8601DateTime",
            "traits": {
              "smithy.api#documentation": "<p>Date and time at which the license checkout expires.</p>"
            }
          },
          "CheckoutMetadata": {
            "target": "com.amazonaws.licensemanager#MetadataList",
            "traits": {
              "smithy.api#documentation": "<p>Information about constraints.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#CheckoutLicense": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#CheckoutLicenseRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#CheckoutLicenseResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
```

```
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {
            "target": "com.amazonaws.licensemanager#NoEntitlementsAllowedException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#RedirectException"
          },
          {
            "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
          },
          {
            "target":
"com.amazonaws.licensemanager#ServerInternalException"
          },
          {
            "target": "com.amazonaws.licensemanager#UnsupportedDigitalSignatureMethodException"
          },
          {
            "target": "com.amazonaws.licensemanager#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Checks out the specified license.</p>\n        <note>\n          <p>If the
account that created the license is the same that is performing the check out, you must\n            specify the account
as the beneficiary.</p>\n        </note>"
        }
      },
      "com.amazonaws.licensemanager#CheckoutLicenseRequest": {
        "type": "structure",
        "members": {
          "ProductSKU": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Product
SKU.</p>",
              "smithy.api#required": {}
            }
          },
          "CheckoutType": {
            "target": "com.amazonaws.licensemanager#CheckoutType",
            "traits": {
```

```
                "smithy.api#documentation": "<p>Checkout type.</p>",
                "smithy.api#required": {}
              }
            },
            "KeyFingerprint": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Key fingerprint identifying the license.</p>",
                "smithy.api#required": {}
              }
            },
            "Entitlements": {
              "target": "com.amazonaws.licensemanager#EntitlementDataList",
              "traits": {
                "smithy.api#documentation": "<p>License entitlements.</p>",

        "smithy.api#required": {}
              }
            },
            "ClientToken": {
              "target": "com.amazonaws.licensemanager#ClientToken",
              "traits": {
                "smithy.api#documentation": "<p>Unique, case-sensitive identifier that you provide to ensure the
idempotency of the request.</p>",
                "smithy.api#required": {}
              }
            },
            "Beneficiary": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>License beneficiary.</p>"
              }
            },
            "NodeId": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Node ID.</p>"
              }
            }
          },
          "traits": {

           "smithy.api#input": {}
          }
        },
        "com.amazonaws.licensemanager#CheckoutLicenseResponse": {
          "type": "structure",
          "members": {
```

```
        "CheckoutType": {
            "target": "com.amazonaws.licensemanager#CheckoutType",
            "traits": {
                "smithy.api#documentation": "<p>Checkout type.</p>"
            }
        },
        "LicenseConsumptionToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>License consumption token.</p>"
            }
        },
        "EntitlementsAllowed": {
            "target": "com.amazonaws.licensemanager#EntitlementDataList",
            "traits": {
                "smithy.api#documentation": "<p>Allowed license entitlements.</p>"
            }
        },
         "SignedToken": {
            "target": "com.amazonaws.licensemanager#SignedToken",
            "traits": {
                "smithy.api#documentation": "<p>Signed token.</p>"
            }
        },
        "NodeId": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Node ID.</p>"
            }
        },
        "IssuedAt": {
            "target": "com.amazonaws.licensemanager#ISO8601DateTime",
            "traits": {
                "smithy.api#documentation": "<p>Date and time at which the license checkout is issued.</p>"
            }
        },
        "Expiration": {
            "target": "com.amazonaws.licensemanager#ISO8601DateTime",
            "traits": {
                "smithy.api#documentation": "<p>Date and
time at which the license checkout expires.</p>"
            }
        },
        "LicenseArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the checkout license.</p>"
            }
```

```
        }
    },
    "traits": {
        "smithy.api#output": {}
    }
},
"com.amazonaws.licensemanager#CheckoutType": {
    "type": "enum",
    "members": {
        "PROVISIONAL": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "PROVISIONAL"
            }
        },
        "PERPETUAL": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "PERPETUAL"
            }
        }
    }
},
"com.amazonaws.licensemanager#ClientRequestToken": {
    "type": "string",
    "traits": {
        "smithy.api#length": {
            "min": 1,
            "max": 36
        }
    }
},
"com.amazonaws.licensemanager#ClientToken": {
    "type": "string",
    "traits": {
        "smithy.api#length": {
            "min": 0,
            "max": 2048
        },
        "smithy.api#pattern": "^\\S+$"
    }
},
"com.amazonaws.licensemanager#ConflictException": {
    "type": "structure",
    "members": {
        "Message": {
            "target": "com.amazonaws.licensemanager#Message"
        }
```

```
        },
        "traits": {
          "aws.protocols#awsQueryError": {
            "code": "ConflictException",
            "httpResponseCode":
409
          },
          "smithy.api#documentation": "<p>There was a conflict processing the request. Try your request
again.</p>",
          "smithy.api#error": "client",
          "smithy.api#httpError": 409
        }
      },
      "com.amazonaws.licensemanager#ConsumedLicenseSummary": {
        "type": "structure",
        "members": {
          "ResourceType": {
            "target": "com.amazonaws.licensemanager#ResourceType",
            "traits": {
              "smithy.api#documentation": "<p>Resource type of the resource consuming a license.</p>"
            }
          },
          "ConsumedLicenses": {
            "target": "com.amazonaws.licensemanager#BoxLong",
            "traits": {
              "smithy.api#documentation": "<p>Number of licenses consumed by the resource.</p>"
            }
          }
        },

 "traits": {
          "smithy.api#documentation": "<p>Details about license consumption.</p>"
        }
      },
      "com.amazonaws.licensemanager#ConsumedLicenseSummaryList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#ConsumedLicenseSummary"
        }
      },
      "com.amazonaws.licensemanager#ConsumptionConfiguration": {
        "type": "structure",
        "members": {
          "RenewType": {
            "target": "com.amazonaws.licensemanager#RenewType",
            "traits": {
              "smithy.api#documentation": "<p>Renewal frequency.</p>"
            }
```

```
            },
            "ProvisionalConfiguration": {
               "target": "com.amazonaws.licensemanager#ProvisionalConfiguration",
               "traits": {
                  "smithy.api#documentation": "<p>Details about a provisional configuration.</p>"
               }
            },
            "BorrowConfiguration": {
               "target": "com.amazonaws.licensemanager#BorrowConfiguration",
               "traits": {
                  "smithy.api#documentation": "<p>Details about a borrow configuration.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#documentation": "<p>Details about a consumption configuration.</p>"
         }
      },
      "com.amazonaws.licensemanager#CreateGrant": {
         "type": "operation",
         "input": {
            "target": "com.amazonaws.licensemanager#CreateGrantRequest"
         },
         "output": {
            "target": "com.amazonaws.licensemanager#CreateGrantResponse"
         },
         "errors": [
            {
               "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
               "target":
"com.amazonaws.licensemanager#AuthorizationException"
            },
            {
               "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
               "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
               "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
               "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
               "target": "com.amazonaws.licensemanager#ValidationException"
```

```
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Creates a grant for the specified license. A grant shares the use of license\n          entitlements with a specific Amazon Web Services account, an organization, or an\n organizational unit (OU). For more
 information, see <a href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/granted-licenses.html\">Granted licenses in License Manager</a> in the <i>License Manager User Guide</i>.</p>"
          }
        },
        "com.amazonaws.licensemanager#CreateGrantRequest": {
          "type": "structure",
          "members": {
            "ClientToken": {
              "target": "com.amazonaws.licensemanager#ClientToken",
              "traits": {
                "smithy.api#documentation": "<p>Unique, case-sensitive identifier that you provide to ensure the idempotency of the request.</p>",
                "smithy.api#required": {}
              }
            },
            "GrantName": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Grant name.</p>",
                "smithy.api#required": {}

    }
            },
            "LicenseArn": {
              "target": "com.amazonaws.licensemanager#Arn",
              "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>",
                "smithy.api#required": {}
              }
            },
            "Principals": {
              "target": "com.amazonaws.licensemanager#PrincipalArnList",
              "traits": {
                "smithy.api#documentation": "<p>The grant principals. You can specify one of the following as an Amazon Resource Name\n          (ARN):</p>\n          <ul>\n            <li>\n              <p>An Amazon Web Services account, which includes only the account specified.</p>\n            </li>\n          </ul>\n          <ul>\n            <li>\n
    <p>An organizational unit (OU), which includes all accounts in the OU.</p>\n            </li>\n          </ul>\n
<ul>\n
          <li>\n              <p>An organization, which will include all accounts across your organization.</p>\n
</li>\n          </ul>",
                "smithy.api#required": {}
              }
```

```
        },
        "HomeRegion": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Home Region of the grant.</p>",
            "smithy.api#required": {}
          }
        },
        "AllowedOperations": {
          "target": "com.amazonaws.licensemanager#AllowedOperationList",
          "traits": {
            "smithy.api#documentation": "<p>Allowed operations for the grant.</p>",
            "smithy.api#required": {}
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },

  "com.amazonaws.licensemanager#CreateGrantResponse": {
      "type": "structure",
      "members": {
        "GrantArn": {
          "target": "com.amazonaws.licensemanager#Arn",
          "traits": {
            "smithy.api#documentation": "<p>Grant ARN.</p>"
          }
        },
        "Status": {
          "target": "com.amazonaws.licensemanager#GrantStatus",
          "traits": {
            "smithy.api#documentation": "<p>Grant status.</p>"
          }
        },
        "Version": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Grant version.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanager#CreateGrantVersion":
```

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{
        "type": "operation",
        "input": {
           "target": "com.amazonaws.licensemanager#CreateGrantVersionRequest"
        },
        "output": {
           "target": "com.amazonaws.licensemanager#CreateGrantVersionResponse"
        },
        "errors": [
           {
              "target": "com.amazonaws.licensemanager#AccessDeniedException"
           },
           {
              "target": "com.amazonaws.licensemanager#AuthorizationException"
           },
           {
              "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
           },
           {
              "target": "com.amazonaws.licensemanager#RateLimitExceededException"
           },
           {
              "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
           },
           {
              "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
           {
              "target": "com.amazonaws.licensemanager#ValidationException"
           }
        ],
        "traits": {
           "smithy.api#documentation": "<p>Creates a new version of the specified grant. For more information,
see\n        <a href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/granted-
licenses.html\">Granted licenses in License Manager</a> in the <i>License Manager User Guide</i>.</p>"
        }
     },
     "com.amazonaws.licensemanager#CreateGrantVersionRequest": {
        "type": "structure",
        "members": {
           "ClientToken": {
              "target": "com.amazonaws.licensemanager#ClientToken",
              "traits": {
                 "smithy.api#documentation": "<p>Unique, case-sensitive identifier that you provide to ensure the
idempotency of the request.</p>",

   "smithy.api#required": {}
              }
```

```
    },
    "GrantArn": {
      "target": "com.amazonaws.licensemanager#Arn",
      "traits": {
        "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the grant.</p>",
        "smithy.api#required": {}
      }
    },
    "GrantName": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {
        "smithy.api#documentation": "<p>Grant name.</p>"
      }
    },
    "AllowedOperations": {
      "target": "com.amazonaws.licensemanager#AllowedOperationList",
      "traits": {
        "smithy.api#documentation": "<p>Allowed operations for the grant.</p>"
      }
    },
    "Status": {
      "target": "com.amazonaws.licensemanager#GrantStatus",
       "traits": {
        "smithy.api#documentation": "<p>Grant status.</p>"
      }
    },
    "StatusReason": {
      "target": "com.amazonaws.licensemanager#StatusReasonMessage",
      "traits": {
        "smithy.api#documentation": "<p>Grant status reason.</p>"
      }
    },
    "SourceVersion": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {
        "smithy.api#documentation": "<p>Current version of the grant.</p>"
      }
    },
    "Options": {
      "target": "com.amazonaws.licensemanager#Options",
      "traits": {
        "smithy.api#documentation": "<p>The options specified for the grant.</p>"
      }
    }
  },
  "traits": {
    "smithy.api#input": {}
  }
```

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    },
    "com.amazonaws.licensemanager#CreateGrantVersionResponse": {
      "type": "structure",
      "members": {
        "GrantArn": {
          "target": "com.amazonaws.licensemanager#Arn",
          "traits": {
            "smithy.api#documentation": "<p>Grant ARN.</p>"
          }
        },
        "Status": {
          "target": "com.amazonaws.licensemanager#GrantStatus",
          "traits": {
            "smithy.api#documentation": "<p>Grant status.</p>"
          }
        },
        "Version": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>New version of the grant.</p>"
          }
        }
      },
      "traits":
{
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanager#CreateLicense": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#CreateLicenseRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#CreateLicenseResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
```

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            },
            {
                "target": "com.amazonaws.licensemanager#RedirectException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Creates a license.</p>"
        }
    },
    "com.amazonaws.licensemanager#CreateLicenseConfiguration": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#CreateLicenseConfigurationRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#CreateLicenseConfigurationResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Creates a license configuration.</p>\n            <p>A license configuration is an abstraction of a customer license agreement that can be\n            consumed and enforced by License Manager. Components include specifications for the license\n            type (licensing by instance, socket, CPU, or vCPU), allowed tenancy (shared tenancy, \n            Dedicated Instance, Dedicated Host, or
```

```
all of these), license affinity  to host (how long a \n         license must be associated with a host), and the number of licenses purchased and used.</p>"
          }
       },
       "com.amazonaws.licensemanager#CreateLicenseConfigurationRequest": {
          "type": "structure",
          "members": {
             "Name": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                   "smithy.api#documentation": "<p>Name of the license configuration.</p>",
                   "smithy.api#required": {}
                }
             },
             "Description": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                   "smithy.api#documentation": "<p>Description of the license configuration.</p>"
                }
             },
             "LicenseCountingType": {
                "target": "com.amazonaws.licensemanager#LicenseCountingType",
                 "traits": {
                   "smithy.api#documentation": "<p>Dimension used to track the license inventory.</p>",
                   "smithy.api#required": {}
                }
             },
             "LicenseCount": {
                "target": "com.amazonaws.licensemanager#BoxLong",
                "traits": {
                   "smithy.api#documentation": "<p>Number of licenses managed by the license configuration.</p>"
                }
             },
             "LicenseCountHardLimit": {
                "target": "com.amazonaws.licensemanager#BoxBoolean",
                "traits": {
                   "smithy.api#documentation": "<p>Indicates whether hard or soft license enforcement is used. Exceeding a hard limit\n         blocks the launch of new instances.</p>"
                }
             },
             "LicenseRules": {
                "target":
 "com.amazonaws.licensemanager#StringList",
                "traits": {
                   "smithy.api#documentation": "<p>License rules. The syntax is #name=value (for example, #allowedTenancy=EC2-DedicatedHost). The available rules \n         vary by dimension, as follows.</p>\n <ul>\n          <li>\n             <p>\n                <code>Cores</code> dimension: <code>allowedTenancy</code> |\n          <code>licenseAffinityToHost</code> |\n             <code>maximumCores</code> |
```

<code>minimumCores</code>\n \n \n \n \n
<code>Instances</code> dimension: <code>allowedTenancy</code> | \n <code>maximumCores</code> |
<code>minimumCores</code> |\n <code>maximumSockets</code> | <code>minimumSockets</code> |\n
<code>maximumVcpus</code> | <code>minimumVcpus</code>\n \n \n
\n
\n <code>Sockets</code> dimension: <code>allowedTenancy</code> | \n
<code>licenseAffinityToHost</code> |\n <code>maximumSockets</code> |
<code>minimumSockets</code>\n \n \n \n \n
<code>vCPUs</code> dimension: <code>allowedTenancy</code> | \n
<code>honorVcpuOptimization</code> | \n <code>maximumVcpus</code> |
<code>minimumVcpus</code>\n \n \n \n The unit for
<code>licenseAffinityToHost</code> is days and the range is 1 to 180. The possible \n values for
<code>allowedTenancy</code> are <code>EC2-Default</code>, <code>EC2-DedicatedHost</code>, and \n
<code>EC2-DedicatedInstance</code>. The possible values for <code>honorVcpuOptimization</code> are \n
<code>True</code> and <code>False</code>. "
            }
          },

  "Tags": {
            "target": "com.amazonaws.licensemanager#TagList",
            "traits": {
              "smithy.api#documentation": " Tags to add to the license configuration. "
            }
          },
          "DisassociateWhenNotFound": {
            "target": "com.amazonaws.licensemanager#BoxBoolean",
            "traits": {
              "smithy.api#documentation": " When true, disassociates a resource when software is
uninstalled. "
            }
          },
          "ProductInformationList": {
            "target": "com.amazonaws.licensemanager#ProductInformationList",
            "traits": {
              "smithy.api#documentation": " Product information. "
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#CreateLicenseConfigurationResponse":
{
        "type": "structure",
        "members": {
          "LicenseConfigurationArn": {
            "target": "com.amazonaws.licensemanager#String",

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            "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license configuration.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#output": {}
    }
},
"com.amazonaws.licensemanager#CreateLicenseConversionTaskForResource": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanager#CreateLicenseConversionTaskForResourceRequest"
    },
    "output": {
        "target": "com.amazonaws.licensemanager#CreateLicenseConversionTaskForResourceResponse"
    },
    "errors": [
        {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
         },
        {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
            "target": "com.amazonaws.licensemanager#ValidationException"
        }
    ],
    "traits": {
        "smithy.api#documentation": "<p>Creates a new license conversion task.</p>"
    }
},
"com.amazonaws.licensemanager#CreateLicenseConversionTaskForResourceRequest": {
    "type": "structure",
    "members": {
        "ResourceArn": {

            "target": "com.amazonaws.licensemanager#Arn",
            "traits": {
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                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the resource you are converting the license type for.</p>",
                "smithy.api#required": {}
              }
            },
            "SourceLicenseContext": {
              "target": "com.amazonaws.licensemanager#LicenseConversionContext",
              "traits": {
                "smithy.api#documentation": "<p>Information that identifies the license type you are converting from. \n\n  For the structure of the source license, see <a href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/conversion-procedures.html#conversion-cli\">Convert a license type using the CLI </a> in the <i>License Manager User Guide</i>.</p>",
                "smithy.api#required": {}
              }
            },
            "DestinationLicenseContext":
 {
              "target": "com.amazonaws.licensemanager#LicenseConversionContext",
              "traits": {
                "smithy.api#documentation": "<p>Information that identifies the license type you are converting to. For the structure of the destination license, see <a href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/conversion-procedures.html#conversion-cli\">Convert a license type using the CLI </a> in the <i>License Manager User Guide</i>.</p>",
                "smithy.api#required": {}
              }
            }
          },
          "traits": {
            "smithy.api#input": {}
          }
        },
        "com.amazonaws.licensemanager#CreateLicenseConversionTaskForResourceResponse": {
          "type": "structure",
          "members": {
            "LicenseConversionTaskId": {
              "target": "com.amazonaws.licensemanager#LicenseConversionTaskId",

           "traits": {
                "smithy.api#documentation": "<p>The ID of the created license type conversion task.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#output": {}
          }
        },
        "com.amazonaws.licensemanager#CreateLicenseManagerReportGenerator": {
          "type": "operation",
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```
        "input": {
            "target": "com.amazonaws.licensemanager#CreateLicenseManagerReportGeneratorRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#CreateLicenseManagerReportGeneratorResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
             },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Creates a report generator.</p>"
        }
    },
    "com.amazonaws.licensemanager#CreateLicenseManagerReportGeneratorRequest": {
        "type": "structure",
        "members": {
            "ReportGeneratorName":
{
                "target": "com.amazonaws.licensemanager#ReportGeneratorName",
                "traits": {
                    "smithy.api#documentation": "<p>Name of the report generator.</p>",
                    "smithy.api#required": {}
                }
            },
            "Type": {
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            "target": "com.amazonaws.licensemanager#ReportTypeList",
            "traits": {
              "smithy.api#documentation": "<p>Type of reports to generate. The following report types an be generated:</p>\n <ul>\n <li>\n <p>License configuration report - Reports the number and details of consumed licenses for a license configuration.</p>\n </li>\n <li>\n <p>Resource report - Reports the tracked licenses and resource consumption for a license configuration.</p>\n </li>\n </ul>",
              "smithy.api#required": {}

        }
          },
          "ReportContext": {
            "target": "com.amazonaws.licensemanager#ReportContext",
            "traits": {
              "smithy.api#documentation": "<p>Defines the type of license configuration the report generator tracks.</p>",
              "smithy.api#required": {}
            }
          },
          "ReportFrequency": {
            "target": "com.amazonaws.licensemanager#ReportFrequency",
            "traits": {
              "smithy.api#documentation": "<p>Frequency by which reports are generated.  Reports can be generated daily, monthly, or weekly.</p>",
              "smithy.api#required": {}
            }
          },
          "ClientToken": {
            "target": "com.amazonaws.licensemanager#ClientRequestToken",
            "traits": {
              "smithy.api#documentation": "<p>Unique, case-sensitive identifier that you provide to ensure the idempotency of the request.</p>",
              "smithy.api#required": {}
            }
          },
          "Description": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Description of the report generator.</p>"
            }
          },
          "Tags": {
            "target": "com.amazonaws.licensemanager#TagList",
            "traits": {
              "smithy.api#documentation": "<p>Tags to add to the report generator.</p>"
            }
          }
        },
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        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#CreateLicenseManagerReportGeneratorResponse": {
        "type": "structure",
        "members": {
            "LicenseManagerReportGeneratorArn":
{
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the new report
generator.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#CreateLicenseRequest": {
        "type": "structure",
        "members": {
            "LicenseName": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>License name.</p>",
                    "smithy.api#required": {}
                }
            },
            "ProductName": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Product
 name.</p>",
                    "smithy.api#required": {}
                }
            },
            "ProductSKU": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Product SKU.</p>",
                    "smithy.api#required": {}
                }
            },
            "Issuer": {
                "target": "com.amazonaws.licensemanager#Issuer",
                "traits": {
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                "smithy.api#documentation": "<p>License issuer.</p>",
                "smithy.api#required": {}
            }
        },
        "HomeRegion": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Home Region for the license.</p>",
                "smithy.api#required": {}

  }
        },
        "Validity": {
            "target": "com.amazonaws.licensemanager#DatetimeRange",
            "traits": {
                "smithy.api#documentation": "<p>Date and time range during which the license is valid, in ISO8601-UTC format.</p>",
                "smithy.api#required": {}
            }
        },
        "Entitlements": {
            "target": "com.amazonaws.licensemanager#EntitlementList",
            "traits": {
                "smithy.api#documentation": "<p>License entitlements.</p>",
                "smithy.api#required": {}
            }
        },
        "Beneficiary": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>License beneficiary.</p>",
                "smithy.api#required": {}
            }
         },
        "ConsumptionConfiguration": {
            "target": "com.amazonaws.licensemanager#ConsumptionConfiguration",
            "traits": {
                "smithy.api#documentation": "<p>Configuration for consumption of the license. Choose a provisional configuration for workloads\n          running with continuous connectivity. Choose a borrow configuration for workloads with offline\n          usage.</p>",
                "smithy.api#required": {}
            }
        },
        "LicenseMetadata": {
            "target": "com.amazonaws.licensemanager#MetadataList",
            "traits": {
                "smithy.api#documentation": "<p>Information about the license.</p>"
            }
```

```
        },
        "ClientToken": {
          "target": "com.amazonaws.licensemanager#ClientToken",
          "traits": {
            "smithy.api#documentation":
"<p>Unique, case-sensitive identifier that you provide to ensure the idempotency of the request.</p>",
            "smithy.api#required": {}
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#CreateLicenseResponse": {
      "type": "structure",
      "members": {
        "LicenseArn": {
          "target": "com.amazonaws.licensemanager#Arn",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>"
          }
        },
        "Status": {
          "target": "com.amazonaws.licensemanager#LicenseStatus",
          "traits": {
            "smithy.api#documentation": "<p>License status.</p>"
          }
        },
        "Version": {
           "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>License version.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanager#CreateLicenseVersion": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#CreateLicenseVersionRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#CreateLicenseVersionResponse"
      },
```

```
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#ConflictException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#RedirectException"
        },
        {
          "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
          "target": "com.amazonaws.licensemanager#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Creates a new version of the specified license.</p>"
      }
    },
    "com.amazonaws.licensemanager#CreateLicenseVersionRequest": {
      "type": "structure",
      "members": {
        "LicenseArn": {
          "target":
"com.amazonaws.licensemanager#Arn",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>",
            "smithy.api#required": {}
          }
        },
        "LicenseName": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>License name.</p>",
            "smithy.api#required": {}
          }
        },
```

```
            "ProductName": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Product name.</p>",
                  "smithy.api#required": {}
               }
            },
            "Issuer": {
               "target": "com.amazonaws.licensemanager#Issuer",
               "traits":
{
                  "smithy.api#documentation": "<p>License issuer.</p>",
                  "smithy.api#required": {}
               }
            },
            "HomeRegion": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Home Region of the license.</p>",
                  "smithy.api#required": {}
               }
            },
            "Validity": {
               "target": "com.amazonaws.licensemanager#DatetimeRange",
               "traits": {
                  "smithy.api#documentation": "<p>Date and time range during which the license is valid, in ISO8601-
UTC format.</p>",
                  "smithy.api#required": {}
               }
            },
            "LicenseMetadata": {
               "target": "com.amazonaws.licensemanager#MetadataList",
               "traits": {
                   "smithy.api#documentation": "<p>Information about the license.</p>"
               }
            },
            "Entitlements": {
               "target": "com.amazonaws.licensemanager#EntitlementList",
               "traits": {
                  "smithy.api#documentation": "<p>License entitlements.</p>",
                  "smithy.api#required": {}
               }
            },
            "ConsumptionConfiguration": {
               "target": "com.amazonaws.licensemanager#ConsumptionConfiguration",
               "traits": {
                  "smithy.api#documentation": "<p>Configuration for consumption of the license. Choose a provisional
configuration for workloads\n         running with continuous connectivity. Choose a borrow configuration for
```

```
workloads with offline\n        usage.</p>",
                    "smithy.api#required": {}
                }
            },

  "Status": {
                "target": "com.amazonaws.licensemanager#LicenseStatus",
                "traits": {
                    "smithy.api#documentation": "<p>License status.</p>",
                    "smithy.api#required": {}
                }
            },
            "ClientToken": {
                "target": "com.amazonaws.licensemanager#ClientToken",
                "traits": {
                    "smithy.api#documentation": "<p>Unique, case-sensitive identifier that you provide to ensure the
idempotency of the request.</p>",
                    "smithy.api#required": {}
                }
            },
            "SourceVersion": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Current version of the license.</p>"
                }
            }
        },
        "traits": {

 "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#CreateLicenseVersionResponse": {
        "type": "structure",
        "members": {
            "LicenseArn": {
                "target": "com.amazonaws.licensemanager#Arn",
                "traits": {
                    "smithy.api#documentation": "<p>License ARN.</p>"
                }
            },
            "Version": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>New version of the license.</p>"
                }
            },
            "Status": {
```

```
            "target": "com.amazonaws.licensemanager#LicenseStatus",
            "traits": {
              "smithy.api#documentation": "<p>License status.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output":
{}
        }
      },
      "com.amazonaws.licensemanager#CreateToken": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#CreateTokenRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#CreateTokenResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#RedirectException"
          },
          {
            "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
          },

      {
            "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          },
          {
            "target": "com.amazonaws.licensemanager#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Creates a long-lived token.</p>\n        <p>A refresh token is a JWT
```

```
token used to get an access token. With an access token,\n           you can call AssumeRoleWithWebIdentity to get
role credentials that you can use to \n           call License Manager to manage the specified license.</p>"
          }
       },
       "com.amazonaws.licensemanager#CreateTokenRequest": {
          "type": "structure",
          "members": {
             "LicenseArn": {
                "target": "com.amazonaws.licensemanager#Arn",
                "traits":
{
                   "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license. The ARN is
mapped to the aud claim of the\n           JWT token.</p>",
                   "smithy.api#required": {}
                }
             },
             "RoleArns": {
                "target": "com.amazonaws.licensemanager#ArnList",
                "traits": {
                   "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the IAM roles to embed in the
token. \n           License Manager does not check whether the roles are in use.</p>"
                }
             },
             "ExpirationInDays": {
                "target": "com.amazonaws.licensemanager#Integer",
                "traits": {
                   "smithy.api#documentation": "<p>Token expiration, in days, counted from token creation. The
default is 365 days.</p>"
                }
             },
             "TokenProperties": {
                 "target": "com.amazonaws.licensemanager#MaxSize3StringList",
                "traits": {
                   "smithy.api#documentation": "<p>Data specified by the caller to be included in the JWT token. The
data is mapped\n           to the amr claim of the JWT token.</p>"
                }
             },
             "ClientToken": {
                "target": "com.amazonaws.licensemanager#ClientToken",
                "traits": {
                   "smithy.api#documentation": "<p>Idempotency token, valid for 10 minutes.</p>",
                   "smithy.api#required": {}
                }
             }
          },
          "traits": {
             "smithy.api#input": {}
          }
```

```
},
"com.amazonaws.licensemanager#CreateTokenResponse": {
   "type": "structure",
   "members": {
      "TokenId": {
         "target": "com.amazonaws.licensemanager#String",

       "traits": {
            "smithy.api#documentation": "<p>Token ID.</p>"
         }
      },
      "TokenType": {
         "target": "com.amazonaws.licensemanager#TokenType",
         "traits": {
            "smithy.api#documentation": "<p>Token type.</p>"
         }
      },
      "Token": {
         "target": "com.amazonaws.licensemanager#TokenString",
         "traits": {
            "smithy.api#documentation": "<p>Refresh token, encoded as a JWT token.</p>"
         }
      }
   },
   "traits": {
      "smithy.api#output": {}
   }
},
"com.amazonaws.licensemanager#DateTime": {
   "type": "timestamp"
},
"com.amazonaws.licensemanager#DatetimeRange": {
   "type": "structure",
   "members": {
      "Begin": {
          "target": "com.amazonaws.licensemanager#ISO8601DateTime",
         "traits": {
            "smithy.api#documentation": "<p>Start of the time range.</p>",
            "smithy.api#required": {}
         }
      },
      "End": {
         "target": "com.amazonaws.licensemanager#ISO8601DateTime",
         "traits": {
            "smithy.api#documentation": "<p>End of the time range.</p>"
         }
      }
   },
```

```
        "traits": {
            "smithy.api#documentation": "<p>Describes a time range, in ISO8601-UTC format.</p>"
        }
    },
    "com.amazonaws.licensemanager#DeleteGrant": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#DeleteGrantRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#DeleteGrantResponse"
         },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Deletes
the specified grant.</p>"
        }
    },
    "com.amazonaws.licensemanager#DeleteGrantRequest": {
        "type": "structure",
        "members": {
            "GrantArn": {
                "target": "com.amazonaws.licensemanager#Arn",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the grant.</p>",
                    "smithy.api#required": {}
```

```
            }
          },
          "StatusReason": {
            "target": "com.amazonaws.licensemanager#StatusReasonMessage",
            "traits": {
              "smithy.api#documentation": "<p>The Status reason for the delete request.</p>"
            }
          },
          "Version": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Current version of the
grant.</p>",
              "smithy.api#required": {}
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#DeleteGrantResponse": {
        "type": "structure",
        "members": {
          "GrantArn": {
            "target": "com.amazonaws.licensemanager#Arn",
            "traits": {
              "smithy.api#documentation": "<p>Grant ARN.</p>"
            }
          },
          "Status": {
            "target": "com.amazonaws.licensemanager#GrantStatus",
            "traits": {
              "smithy.api#documentation": "<p>Grant status.</p>"
            }
          },
          "Version": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation":
"<p>Grant version.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
```

```
    "com.amazonaws.licensemanager#DeleteLicense": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#DeleteLicenseRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#DeleteLicenseResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#ConflictException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"

},
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#RedirectException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
          "target": "com.amazonaws.licensemanager#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Deletes the specified license.</p>"
      }
    },
    "com.amazonaws.licensemanager#DeleteLicenseConfiguration": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#DeleteLicenseConfigurationRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#DeleteLicenseConfigurationResponse"
      },
```

```
    "errors": [
        {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Deletes the specified license configuration.</p>\n      <p>You cannot delete a license configuration that is in use.</p>"
      }
    },
    "com.amazonaws.licensemanager#DeleteLicenseConfigurationRequest": {
      "type": "structure",
      "members":
{
        "LicenseConfigurationArn": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>ID of the license configuration.</p>",
            "smithy.api#required": {}
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#DeleteLicenseConfigurationResponse": {
      "type": "structure",
      "members": {},
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanager#DeleteLicenseManagerReportGenerator": {
      "type": "operation",
      "input": {
```

```
            "target": "com.amazonaws.licensemanager#DeleteLicenseManagerReportGeneratorRequest"
          },
          "output": {
            "target": "com.amazonaws.licensemanager#DeleteLicenseManagerReportGeneratorResponse"
          },
          "errors": [
            {
              "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
              "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
              "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
              "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
              "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
              "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
            },
            {
              "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
              "target": "com.amazonaws.licensemanager#ValidationException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Deletes the specified report generator.</p>\n          <p>This action deletes the report generator, which stops it from generating future reports.\n          The action cannot be reversed. It has no effect on the previous reports from this generator.</p>"
          }
        },
        "com.amazonaws.licensemanager#DeleteLicenseManagerReportGeneratorRequest": {
          "type": "structure",
          "members": {
            "LicenseManagerReportGeneratorArn": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the report generator to be deleted.</p>",
                "smithy.api#required": {}
              }
            }
```

```
        },
        "traits": {

 "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#DeleteLicenseManagerReportGeneratorResponse": {
        "type": "structure",
        "members": {},
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#DeleteLicenseRequest": {
        "type": "structure",
        "members": {
          "LicenseArn": {
            "target": "com.amazonaws.licensemanager#Arn",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>",
              "smithy.api#required": {}
            }
          },
          "SourceVersion": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Current version of the license.</p>",
              "smithy.api#required":
{}
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#DeleteLicenseResponse": {
        "type": "structure",
        "members": {
          "Status": {
            "target": "com.amazonaws.licensemanager#LicenseDeletionStatus",
            "traits": {
              "smithy.api#documentation": "<p>License status.</p>"
            }
          },
          "DeletionDate": {
            "target": "com.amazonaws.licensemanager#ISO8601DateTime",
            "traits": {
```

```
                "smithy.api#documentation": "<p>Date when the license is deleted.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#output": {}
          }
        },
        "com.amazonaws.licensemanager#DeleteToken": {
          "type": "operation",
           "input": {
            "target": "com.amazonaws.licensemanager#DeleteTokenRequest"
          },
          "output": {
            "target": "com.amazonaws.licensemanager#DeleteTokenResponse"
          },
          "errors": [
            {
              "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
              "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
              "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
              "target": "com.amazonaws.licensemanager#RedirectException"
            },
            {
              "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
            },
            {
              "target": "com.amazonaws.licensemanager#ServerInternalException"
            },

        {
              "target": "com.amazonaws.licensemanager#ValidationException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Deletes the specified token. Must be called in the license home
Region.</p>"
          }
        },
        "com.amazonaws.licensemanager#DeleteTokenRequest": {
          "type": "structure",
          "members": {
```

```
            "TokenId": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Token ID.</p>",
                "smithy.api#required": {}
              }
            }
          },
          "traits": {
            "smithy.api#input": {}
          }
        },
        "com.amazonaws.licensemanager#DeleteTokenResponse": {
          "type": "structure",
          "members": {},
          "traits": {
            "smithy.api#output": {}

          }
        },
        "com.amazonaws.licensemanager#DigitalSignatureMethod": {
          "type": "enum",
          "members": {
            "JWT_PS384": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "JWT_PS384"
              }
            }
          }
        },
        "com.amazonaws.licensemanager#Entitlement": {
          "type": "structure",
          "members": {
            "Name": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Entitlement name.</p>",
                "smithy.api#required": {}
              }
            },
            "Value": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Entitlement resource. Use only
if the unit is None.</p>"
              }
            },
```

```
            "MaxCount": {
              "target": "com.amazonaws.licensemanager#Long",
              "traits": {
                "smithy.api#documentation": "<p>Maximum entitlement count. Use if the unit is not None.</p>"
              }
            },
            "Overage": {
              "target": "com.amazonaws.licensemanager#BoxBoolean",
              "traits": {
                "smithy.api#documentation": "<p>Indicates whether overages are allowed.</p>"
              }
            },
            "Unit": {
              "target": "com.amazonaws.licensemanager#EntitlementUnit",
              "traits": {
                "smithy.api#documentation": "<p>Entitlement unit.</p>",
                "smithy.api#required": {}
              }
            },
            "AllowCheckIn": {
              "target":
"com.amazonaws.licensemanager#BoxBoolean",
              "traits": {
                "smithy.api#documentation": "<p>Indicates whether check-ins are allowed.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>Describes a resource entitled for use with a license.</p>"
          }
        },
        "com.amazonaws.licensemanager#EntitlementData": {
          "type": "structure",
          "members": {
            "Name": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Entitlement data name.</p>",
                "smithy.api#required": {}
              }
            },
            "Value": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Entitlement
data value.</p>"
              }
            },
```

```
            "Unit": {
              "target": "com.amazonaws.licensemanager#EntitlementDataUnit",
              "traits": {
                "smithy.api#documentation": "<p>Entitlement data unit.</p>",
                "smithy.api#required": {}
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>Data associated with an entitlement resource.</p>"
          }
        },
        "com.amazonaws.licensemanager#EntitlementDataList": {
          "type": "list",
          "member": {
            "target": "com.amazonaws.licensemanager#EntitlementData"
          }
        },
        "com.amazonaws.licensemanager#EntitlementDataUnit": {
          "type": "enum",
          "members": {
            "COUNT": {
              "target": "smithy.api#Unit",
              "traits": {

"smithy.api#enumValue": "Count"
              }
            },
            "NONE": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "None"
              }
            },
            "SECONDS": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "Seconds"
              }
            },
            "MICROSECONDS": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "Microseconds"
              }
            },
            "MILLISECONDS": {
              "target": "smithy.api#Unit",
```

```
            "traits": {
                "smithy.api#enumValue": "Milliseconds"
            }
        },
        "BYTES": {
            "target": "smithy.api#Unit",
             "traits": {
                "smithy.api#enumValue": "Bytes"
            }
        },
        "KILOBYTES": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Kilobytes"
            }
        },
        "MEGABYTES": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Megabytes"
            }
        },
        "GIGABYTES": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Gigabytes"
            }
        },
        "TERABYTES": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Terabytes"
            }
        },
        "BITS":
{
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Bits"
            }
        },
        "KILOBITS": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Kilobits"
            }
        },
        "MEGABITS": {
```

```
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Megabits"
            }
        },
        "GIGABITS": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Gigabits"
            }
        },
        "TERABITS": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Terabits"

}
        },
        "PERCENT": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Percent"
            }
        },
        "BYTES_PER_SECOND": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Bytes/Second"
            }
        },
        "KILOBYTES_PER_SECOND": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Kilobytes/Second"
            }
        },
        "MEGABYTES_PER_SECOND": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Megabytes/Second"
            }
        },
        "GIGABYTES_PER_SECOND": {
            "target": "smithy.api#Unit",
             "traits": {
                "smithy.api#enumValue": "Gigabytes/Second"
            }
        },
```

```
            "TERABYTES_PER_SECOND": {
                "target": "smithy.api#Unit",
                "traits": {
                    "smithy.api#enumValue": "Terabytes/Second"
                }
            },
            "BITS_PER_SECOND": {
                "target": "smithy.api#Unit",
                "traits": {
                    "smithy.api#enumValue": "Bits/Second"
                }
            },
            "KILOBITS_PER_SECOND": {
                "target": "smithy.api#Unit",
                "traits": {
                    "smithy.api#enumValue": "Kilobits/Second"
                }
            },
            "MEGABITS_PER_SECOND": {
                "target": "smithy.api#Unit",
                "traits": {
                    "smithy.api#enumValue":
"Megabits/Second"
                }
            },
            "GIGABITS_PER_SECOND": {
                "target": "smithy.api#Unit",
                "traits": {
                    "smithy.api#enumValue": "Gigabits/Second"
                }
            },
            "TERABITS_PER_SECOND": {
                "target": "smithy.api#Unit",
                "traits": {
                    "smithy.api#enumValue": "Terabits/Second"
                }
            },
            "COUNT_PER_SECOND": {
                "target": "smithy.api#Unit",
                "traits": {
                    "smithy.api#enumValue": "Count/Second"
                }
            }
        }
    },
    "com.amazonaws.licensemanager#EntitlementList": {
        "type": "list",
        "member": {
```

```
            "target": "com.amazonaws.licensemanager#Entitlement"
          }
        },
        "com.amazonaws.licensemanager#EntitlementNotAllowedException":
{
          "type": "structure",
          "members": {
            "Message": {
              "target": "com.amazonaws.licensemanager#Message"
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>The entitlement is not allowed.</p>",
            "smithy.api#error": "client",
            "smithy.api#httpError": 400
          }
        },
        "com.amazonaws.licensemanager#EntitlementUnit": {
          "type": "enum",
          "members": {
            "COUNT": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "Count"
              }
            },
            "NONE": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "None"
              }
            },
            "SECONDS":
{
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "Seconds"
              }
            },
            "MICROSECONDS": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "Microseconds"
              }
            },
            "MILLISECONDS": {
              "target": "smithy.api#Unit",
              "traits": {
```

```
        "smithy.api#enumValue": "Milliseconds"
      }
    },
    "BYTES": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "Bytes"
      }
    },
    "KILOBYTES": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "Kilobytes"
       }
    },
    "MEGABYTES": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "Megabytes"
      }
    },
    "GIGABYTES": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "Gigabytes"
      }
    },
    "TERABYTES": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "Terabytes"
      }
    },
    "BITS": {
      "target": "smithy.api#Unit",
      "traits": {
        "smithy.api#enumValue": "Bits"
      }
    },
    "KILOBITS": {
      "target": "smithy.api#Unit",
      "traits": {

       "smithy.api#enumValue": "Kilobits"
      }
    },
    "MEGABITS": {
      "target": "smithy.api#Unit",
```

```
            "traits": {
              "smithy.api#enumValue": "Megabits"
            }
          },
          "GIGABITS": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "Gigabits"
            }
          },
          "TERABITS": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "Terabits"
            }
          },
          "PERCENT": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "Percent"
            }
          },
          "BYTES_PER_SECOND": {
            "target":
"smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "Bytes/Second"
            }
          },
          "KILOBYTES_PER_SECOND": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "Kilobytes/Second"
            }
          },
          "MEGABYTES_PER_SECOND": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "Megabytes/Second"
            }
          },
          "GIGABYTES_PER_SECOND": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "Gigabytes/Second"
            }
          },
          "TERABYTES_PER_SECOND": {
```

```
            "target": "smithy.api#Unit",
            "traits": {

"smithy.api#enumValue": "Terabytes/Second"
            }
          },
          "BITS_PER_SECOND": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "Bits/Second"
            }
          },
          "KILOBITS_PER_SECOND": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "Kilobits/Second"
            }
          },
          "MEGABITS_PER_SECOND": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "Megabits/Second"
            }
          },
          "GIGABITS_PER_SECOND": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "Gigabits/Second"
            }
          },

       "TERABITS_PER_SECOND": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "Terabits/Second"
            }
          },
          "COUNT_PER_SECOND": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "Count/Second"
            }
          }
        }
      },
      "com.amazonaws.licensemanager#EntitlementUsage": {
        "type": "structure",
        "members": {
```

```
            "Name": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Entitlement usage name.</p>",
                  "smithy.api#required": {}
               }
            },
            "ConsumedValue": {
               "target": "com.amazonaws.licensemanager#String",

            "traits": {
                  "smithy.api#documentation": "<p>Resource usage consumed.</p>",
                  "smithy.api#required": {}
               }
            },
            "MaxCount": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Maximum entitlement usage count.</p>"
               }
            },
            "Unit": {
               "target": "com.amazonaws.licensemanager#EntitlementDataUnit",
               "traits": {
                  "smithy.api#documentation": "<p>Entitlement usage unit.</p>",
                  "smithy.api#required": {}
               }
            }
         },
         "traits": {
            "smithy.api#documentation": "<p>Usage associated with an entitlement resource.</p>"
         }
      },
      "com.amazonaws.licensemanager#EntitlementUsageList":
{
         "type": "list",
         "member": {
            "target": "com.amazonaws.licensemanager#EntitlementUsage"
         }
      },
      "com.amazonaws.licensemanager#ExtendLicenseConsumption": {
         "type": "operation",
         "input": {
            "target": "com.amazonaws.licensemanager#ExtendLicenseConsumptionRequest"
         },
         "output": {
            "target": "com.amazonaws.licensemanager#ExtendLicenseConsumptionResponse"
         },
```

```
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
          "target": "com.amazonaws.licensemanager#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Extends the expiration date for license consumption.</p>"
      }
    },
    "com.amazonaws.licensemanager#ExtendLicenseConsumptionRequest": {
      "type": "structure",
      "members": {
        "LicenseConsumptionToken": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>License consumption token.</p>",
            "smithy.api#required": {}

    }
        },
        "DryRun": {
          "target": "com.amazonaws.licensemanager#Boolean",
          "traits": {
            "smithy.api#default": false,
            "smithy.api#documentation": "<p>Checks whether you have the required permissions for the action, without actually making the request. Provides an error response if you do not have the required permissions.</p>"
          }
        }
      },
      "traits": {
```

```
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#ExtendLicenseConsumptionResponse": {
        "type": "structure",
        "members": {
            "LicenseConsumptionToken": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>License consumption token.</p>"
                }
            },

            "Expiration": {
                "target": "com.amazonaws.licensemanager#ISO8601DateTime",
                "traits": {
                    "smithy.api#documentation": "<p>Date and time at which the license consumption expires.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#FailedDependencyException": {
        "type": "structure",
        "members": {
            "Message": {
                "target": "com.amazonaws.licensemanager#Message"
            },
            "ErrorCode": {
                "target": "com.amazonaws.licensemanager#String"
            }
        },
        "traits": {
            "aws.protocols#awsQueryError": {
                "code": "FailedDependency",
                "httpResponseCode": 424
            },
            "smithy.api#documentation":
"<p>A dependency required to run the API is missing.</p>",
            "smithy.api#error": "client",
            "smithy.api#httpError": 424
        }
    },
    "com.amazonaws.licensemanager#Filter": {
        "type": "structure",
        "members": {
```

```
            "Name": {
               "target": "com.amazonaws.licensemanager#FilterName",
               "traits": {
                  "smithy.api#documentation": "<p>Name of the filter. Filter names are case-sensitive.</p>"
               }
            },
            "Values": {
               "target": "com.amazonaws.licensemanager#FilterValues",
               "traits": {
                  "smithy.api#documentation": "<p>The value of the filter, which is case-sensitive. You can only specify one value for the filter.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#documentation": "<p>A filter
 name and value pair that is used to return more specific results from a\n          describe operation. Filters can be used to match a set of resources by specific criteria,\n          such as tags, attributes, or IDs.</p>"
         }
      },
      "com.amazonaws.licensemanager#FilterLimitExceededException": {
         "type": "structure",
         "members": {
            "Message": {
               "target": "com.amazonaws.licensemanager#Message"
            }
         },
         "traits": {
            "aws.protocols#awsQueryError": {
               "code": "FilterLimitExceeded",
               "httpResponseCode": 400
            },
            "smithy.api#documentation": "<p>The request uses too many filters or too many filter values.</p>",
            "smithy.api#error": "client",
            "smithy.api#httpError": 400
         }
      },
      "com.amazonaws.licensemanager#FilterList": {
         "type": "list",
          "member": {
            "target": "com.amazonaws.licensemanager#Filter"
         }
      },
      "com.amazonaws.licensemanager#FilterName": {
         "type": "string"
      },
      "com.amazonaws.licensemanager#FilterValue": {
         "type": "string"
```

```
    },
    "com.amazonaws.licensemanager#FilterValues": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanager#FilterValue",
        "traits": {
          "smithy.api#xmlName": "item"
        }
      }
    },
    "com.amazonaws.licensemanager#Filters": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanager#Filter",
        "traits": {
          "smithy.api#xmlName": "item"
        }
      }
    },
    "com.amazonaws.licensemanager#GetAccessToken": {
      "type": "operation",
      "input": {
         "target": "com.amazonaws.licensemanager#GetAccessTokenRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#GetAccessTokenResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
          "target": "com.amazonaws.licensemanager#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Gets a temporary access token to use with
AssumeRoleWithWebIdentity. Access
```

```
tokens\n          are valid for one hour.</p>"
        }
      },
      "com.amazonaws.licensemanager#GetAccessTokenRequest": {
        "type": "structure",
        "members": {
          "Token": {
            "target": "com.amazonaws.licensemanager#TokenString",
            "traits": {
              "smithy.api#documentation": "<p>Refresh token, encoded as a JWT token.</p>",
              "smithy.api#required": {}
            }
          },
          "TokenProperties": {
            "target": "com.amazonaws.licensemanager#MaxSize3StringList",
            "traits": {
              "smithy.api#documentation": "<p>Token properties to validate against those present in the JWT
token.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#GetAccessTokenResponse":
{
        "type": "structure",
        "members": {
          "AccessToken": {
            "target": "com.amazonaws.licensemanager#TokenString",
            "traits": {
              "smithy.api#documentation": "<p>Temporary access token.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#GetGrant": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#GetGrantRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#GetGrantResponse"
        },
```

```
    "errors": [
        {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
            "target": "com.amazonaws.licensemanager#AuthorizationException"

    },
        {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
            "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
        },
        {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
            "target": "com.amazonaws.licensemanager#ValidationException"
        }
    ],
    "traits": {
        "smithy.api#documentation": "<p>Gets detailed information about the specified grant.</p>"
    }
},
"com.amazonaws.licensemanager#GetGrantRequest": {
    "type": "structure",
    "members": {
        "GrantArn": {
            "target": "com.amazonaws.licensemanager#Arn",
             "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the grant.</p>",
                "smithy.api#required": {}
            }
        },
        "Version": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Grant version.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#input": {}
    }
```

```
},
"com.amazonaws.licensemanager#GetGrantResponse": {
   "type": "structure",
   "members": {
      "Grant": {
         "target": "com.amazonaws.licensemanager#Grant",
         "traits": {
            "smithy.api#documentation": "<p>Grant details.</p>"
         }
      }
   },
   "traits": {

"smithy.api#output": {}
   }
},
"com.amazonaws.licensemanager#GetLicense": {
   "type": "operation",
   "input": {
      "target": "com.amazonaws.licensemanager#GetLicenseRequest"
   },
   "output": {
      "target": "com.amazonaws.licensemanager#GetLicenseResponse"
   },
   "errors": [
      {
         "target": "com.amazonaws.licensemanager#AccessDeniedException"
      },
      {
         "target": "com.amazonaws.licensemanager#AuthorizationException"
      },
      {
         "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
      },
      {
         "target": "com.amazonaws.licensemanager#RateLimitExceededException"
      },
      {
         "target": "com.amazonaws.licensemanager#ServerInternalException"

 },
      {
         "target": "com.amazonaws.licensemanager#ValidationException"
      }
   ],
   "traits": {
      "smithy.api#documentation": "<p>Gets detailed information about the specified license.</p>"
   }
```

```
    },
    "com.amazonaws.licensemanager#GetLicenseConfiguration": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#GetLicenseConfigurationRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#GetLicenseConfigurationResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Gets detailed information about the specified license
configuration.</p>"
      }
    },
    "com.amazonaws.licensemanager#GetLicenseConfigurationRequest": {
      "type": "structure",
      "members": {
        "LicenseConfigurationArn": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license
configuration.</p>",
            "smithy.api#required": {}
          }
        }
      },
      "traits":
{
        "smithy.api#input": {}
      }
    },
```

```
"com.amazonaws.licensemanager#GetLicenseConfigurationResponse": {
    "type": "structure",
    "members": {
        "LicenseConfigurationId": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Unique ID for the license configuration.</p>"
            }
        },
        "LicenseConfigurationArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license configuration.</p>"
            }
        },
        "Name": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Name of the license configuration.</p>"
             }
        },
        "Description": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Description of the license configuration.</p>"
            }
        },
        "LicenseCountingType": {
            "target": "com.amazonaws.licensemanager#LicenseCountingType",
            "traits": {
                "smithy.api#documentation": "<p>Dimension for which the licenses are counted.</p>"
            }
        },
        "LicenseRules": {
            "target": "com.amazonaws.licensemanager#StringList",
            "traits": {
                "smithy.api#documentation": "<p>License rules.</p>"
            }
        },
        "LicenseCount": {
            "target": "com.amazonaws.licensemanager#BoxLong",

           "traits": {
                "smithy.api#documentation": "<p>Number of available licenses.</p>"
            }
        },
        "LicenseCountHardLimit": {
            "target": "com.amazonaws.licensemanager#BoxBoolean",
```

```
            "traits": {
                "smithy.api#documentation": "<p>Sets the number of available licenses as a hard limit.</p>"
            }
        },
        "ConsumedLicenses": {
            "target": "com.amazonaws.licensemanager#BoxLong",
            "traits": {
                "smithy.api#documentation": "<p>Number of licenses assigned to resources.</p>"
            }
        },
        "Status": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>License configuration status.</p>"
            }

    },
        "OwnerAccountId": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Account ID of the owner of the license configuration.</p>"
            }
        },
        "ConsumedLicenseSummaryList": {
            "target": "com.amazonaws.licensemanager#ConsumedLicenseSummaryList",
            "traits": {
                "smithy.api#documentation": "<p>Summaries of the licenses consumed by resources.</p>"
            }
        },
        "ManagedResourceSummaryList": {
            "target": "com.amazonaws.licensemanager#ManagedResourceSummaryList",
            "traits": {
                "smithy.api#documentation": "<p>Summaries of the managed resources.</p>"
            }
        },
        "Tags": {
            "target": "com.amazonaws.licensemanager#TagList",
             "traits": {
                "smithy.api#documentation": "<p>Tags for the license configuration.</p>"
            }
        },
        "ProductInformationList": {
            "target": "com.amazonaws.licensemanager#ProductInformationList",
            "traits": {
                "smithy.api#documentation": "<p>Product information.</p>"
            }
        },
        "AutomatedDiscoveryInformation": {
```

```
            "target": "com.amazonaws.licensemanager#AutomatedDiscoveryInformation",
            "traits": {
              "smithy.api#documentation": "<p>Automated discovery information.</p>"
            }
          },
          "DisassociateWhenNotFound": {
            "target": "com.amazonaws.licensemanager#BoxBoolean",
            "traits": {
              "smithy.api#documentation": "<p>When
true, disassociates a resource when software is uninstalled.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#GetLicenseConversionTask": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#GetLicenseConversionTaskRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#GetLicenseConversionTaskResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {

 "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Gets information about the specified license type conversion task.</p>"
        }
      },
      "com.amazonaws.licensemanager#GetLicenseConversionTaskRequest": {
```

```
        "type": "structure",
        "members": {
          "LicenseConversionTaskId": {
            "target": "com.amazonaws.licensemanager#LicenseConversionTaskId",
            "traits": {
              "smithy.api#documentation": "<p>ID of the license type conversion task to retrieve information
on.</p>",
              "smithy.api#required": {}
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#GetLicenseConversionTaskResponse": {
        "type": "structure",
        "members": {
          "LicenseConversionTaskId": {
            "target": "com.amazonaws.licensemanager#LicenseConversionTaskId",
            "traits": {
              "smithy.api#documentation": "<p>ID of the license type conversion task.</p>"
            }
          },
          "ResourceArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Names (ARN) of the resources the license
conversion task is associated with.</p>"
            }
          },
          "SourceLicenseContext": {
            "target": "com.amazonaws.licensemanager#LicenseConversionContext",
            "traits": {
              "smithy.api#documentation": "<p>Information
 about the license type converted from.</p>"
            }
          },
          "DestinationLicenseContext": {
            "target": "com.amazonaws.licensemanager#LicenseConversionContext",
            "traits": {
              "smithy.api#documentation": "<p>Information about the license type converted to.</p>"
            }
          },
          "StatusMessage": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>The status message for the conversion task.</p>"
```

```
            }
          },
          "Status": {
            "target": "com.amazonaws.licensemanager#LicenseConversionTaskStatus",
            "traits": {
              "smithy.api#documentation": "<p>Status of the license type conversion task.</p>"
            }
          },

  "StartTime": {
            "target": "com.amazonaws.licensemanager#DateTime",
            "traits": {
              "smithy.api#documentation": "<p>Time at which the license type conversion task was started .</p>"
            }
          },
          "LicenseConversionTime": {
            "target": "com.amazonaws.licensemanager#DateTime",
            "traits": {
              "smithy.api#documentation": "<p>Amount of time to complete the license type conversion.</p>"
            }
          },
          "EndTime": {
            "target": "com.amazonaws.licensemanager#DateTime",
            "traits": {
              "smithy.api#documentation": "<p>Time at which the license type conversion task was
completed.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#GetLicenseManagerReportGenerator":
{
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#GetLicenseManagerReportGeneratorRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#GetLicenseManagerReportGeneratorResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
```

```
            },
            {
              "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
              "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
              "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"

          },
            {
              "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
            },
            {
              "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
              "target": "com.amazonaws.licensemanager#ValidationException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Gets information about the specified report generator.</p>"
          }
        },
        "com.amazonaws.licensemanager#GetLicenseManagerReportGeneratorRequest": {
          "type": "structure",
          "members": {
            "LicenseManagerReportGeneratorArn": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the report generator.</p>",
                "smithy.api#required":
{}
              }
            }
          },
          "traits": {
            "smithy.api#input": {}
          }
        },
        "com.amazonaws.licensemanager#GetLicenseManagerReportGeneratorResponse": {
          "type": "structure",
          "members": {
            "ReportGenerator": {
              "target": "com.amazonaws.licensemanager#ReportGenerator",
              "traits": {
                "smithy.api#documentation": "<p>A report generator that creates periodic reports about your license
```

```
configurations.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#GetLicenseRequest": {
        "type": "structure",
        "members": {
            "LicenseArn": {
                "target": "com.amazonaws.licensemanager#Arn",
                "traits": {

 "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>",
                    "smithy.api#required": {}
                }
            },
            "Version": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>License version.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#GetLicenseResponse": {
        "type": "structure",
        "members": {
            "License": {
                "target": "com.amazonaws.licensemanager#License",
                "traits": {
                    "smithy.api#documentation": "<p>License details.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#output": {}
        }
    },

  "com.amazonaws.licensemanager#GetLicenseUsage": {
        "type": "operation",
        "input": {
```

```
        "target": "com.amazonaws.licensemanager#GetLicenseUsageRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#GetLicenseUsageResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {

"target": "com.amazonaws.licensemanager#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Gets detailed information about the usage of the specified license.</p>"
      }
    },
    "com.amazonaws.licensemanager#GetLicenseUsageRequest": {
      "type": "structure",
      "members": {
        "LicenseArn": {
          "target": "com.amazonaws.licensemanager#Arn",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>",
            "smithy.api#required": {}
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#GetLicenseUsageResponse": {
      "type": "structure",
      "members": {
```

```
            "LicenseUsage": {
               "target":
"com.amazonaws.licensemanager#LicenseUsage",
               "traits": {
                  "smithy.api#documentation": "<p>License usage details.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#output": {}
         }
      },
      "com.amazonaws.licensemanager#GetServiceSettings": {
         "type": "operation",
         "input": {
            "target": "com.amazonaws.licensemanager#GetServiceSettingsRequest"
         },
         "output": {
            "target": "com.amazonaws.licensemanager#GetServiceSettingsResponse"
         },
         "errors": [
            {
               "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
               "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
               "target": "com.amazonaws.licensemanager#RateLimitExceededException"
             },
            {
               "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Gets the License Manager settings for the current Region.</p>"
         }
      },
      "com.amazonaws.licensemanager#GetServiceSettingsRequest": {
         "type": "structure",
         "members": {},
         "traits": {
            "smithy.api#input": {}
         }
      },
      "com.amazonaws.licensemanager#GetServiceSettingsResponse": {
         "type": "structure",
         "members": {
```

```
            "S3BucketArn": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Regional S3 bucket path for storing reports, license trail event data,
discovery data,\n         and so on.</p>"

  }
            },
            "SnsTopicArn": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>SNS topic configured to receive notifications from License
Manager.</p>"
               }
            },
            "OrganizationConfiguration": {
               "target": "com.amazonaws.licensemanager#OrganizationConfiguration",
               "traits": {
                  "smithy.api#documentation": "<p>Indicates whether Organizations is integrated with License
Manager for\n         cross-account discovery.</p>"
               }
            },
            "EnableCrossAccountsDiscovery": {
               "target": "com.amazonaws.licensemanager#BoxBoolean",
               "traits": {
                  "smithy.api#documentation": "<p>Indicates whether cross-account discovery is enabled.</p>"
               }

         },
            "LicenseManagerResourceShareArn": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the resource share. The License
Manager management account \n         provides member accounts with access to this share.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#output": {}
         }
      },
      "com.amazonaws.licensemanager#Grant": {
         "type": "structure",
         "members": {
            "GrantArn": {
               "target": "com.amazonaws.licensemanager#Arn",
               "traits": {
                  "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the grant.</p>",
```

```
                "smithy.api#required": {}
            }
        },
        "GrantName": {

 "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Grant name.</p>",
                "smithy.api#required": {}
            }
        },
        "ParentArn": {
            "target": "com.amazonaws.licensemanager#Arn",
            "traits": {
                "smithy.api#documentation": "<p>Parent ARN.</p>",
                "smithy.api#required": {}
            }
        },
        "LicenseArn": {
            "target": "com.amazonaws.licensemanager#Arn",
            "traits": {
                "smithy.api#documentation": "<p>License ARN.</p>",
                "smithy.api#required": {}
            }
        },
        "GranteePrincipalArn": {
            "target": "com.amazonaws.licensemanager#Arn",
            "traits": {

"smithy.api#documentation": "<p>The grantee principal ARN.</p>",
                "smithy.api#required": {}
            }
        },
        "HomeRegion": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Home Region of the grant.</p>",
                "smithy.api#required": {}
            }
        },
        "GrantStatus": {
            "target": "com.amazonaws.licensemanager#GrantStatus",
            "traits": {
                "smithy.api#documentation": "<p>Grant status.</p>",
                "smithy.api#required": {}
            }
        },
        "StatusReason": {
```

```
            "target": "com.amazonaws.licensemanager#StatusReasonMessage",
            "traits": {
              "smithy.api#documentation": "<p>Grant status reason.</p>"
            }
          },
          "Version": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Grant version.</p>",
              "smithy.api#required": {}
            }
          },
          "GrantedOperations": {
            "target": "com.amazonaws.licensemanager#AllowedOperationList",
            "traits": {
              "smithy.api#documentation": "<p>Granted operations.</p>",
              "smithy.api#required": {}
            }
          },
          "Options": {
            "target": "com.amazonaws.licensemanager#Options",
            "traits": {
              "smithy.api#documentation": "<p>The options specified for the grant.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation":
"<p>Describes a grant.</p>"
        }
      },
      "com.amazonaws.licensemanager#GrantList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#Grant"
        }
      },
      "com.amazonaws.licensemanager#GrantStatus": {
        "type": "enum",
        "members": {
          "PENDING_WORKFLOW": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "PENDING_WORKFLOW"
            }
          },
          "PENDING_ACCEPT": {
            "target": "smithy.api#Unit",
```

```
            "traits": {
                "smithy.api#enumValue": "PENDING_ACCEPT"
            }
        },
        "REJECTED": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "REJECTED"

        }
        },
        "ACTIVE": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "ACTIVE"
            }
        },
        "FAILED_WORKFLOW": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "FAILED_WORKFLOW"
            }
        },
        "DELETED": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "DELETED"
            }
        },
        "PENDING_DELETE": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "PENDING_DELETE"
            }
        },
        "DISABLED": {
            "target": "smithy.api#Unit",
            "traits":
{
                "smithy.api#enumValue": "DISABLED"
            }
        },
        "WORKFLOW_COMPLETED": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "WORKFLOW_COMPLETED"
            }
        }
```

```
        }
      },
      "com.amazonaws.licensemanager#GrantedLicense": {
        "type": "structure",
        "members": {
          "LicenseArn": {
            "target": "com.amazonaws.licensemanager#Arn",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>"
            }
          },
          "LicenseName": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>License name.</p>"
            }

},
          "ProductName": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Product name.</p>"
            }
          },
          "ProductSKU": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Product SKU.</p>"
            }
          },
          "Issuer": {
            "target": "com.amazonaws.licensemanager#IssuerDetails",
            "traits": {
              "smithy.api#documentation": "<p>Granted license issuer.</p>"
            }
          },
          "HomeRegion": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Home Region of the granted license.</p>"

           }
          },
          "Status": {
            "target": "com.amazonaws.licensemanager#LicenseStatus",
            "traits": {
              "smithy.api#documentation": "<p>Granted license status.</p>"
            }
```

```
        },
        "Validity": {
          "target": "com.amazonaws.licensemanager#DatetimeRange",
          "traits": {
            "smithy.api#documentation": "<p>Date and time range during which the granted license is valid, in
ISO8601-UTC format.</p>"
          }
        },
        "Beneficiary": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Granted license beneficiary.</p>"
          }
        },
        "Entitlements": {
          "target": "com.amazonaws.licensemanager#EntitlementList",
           "traits": {
            "smithy.api#documentation": "<p>License entitlements.</p>"
          }
        },
        "ConsumptionConfiguration": {
          "target": "com.amazonaws.licensemanager#ConsumptionConfiguration",
          "traits": {
            "smithy.api#documentation": "<p>Configuration for consumption of the license.</p>"
          }
        },
        "LicenseMetadata": {
          "target": "com.amazonaws.licensemanager#MetadataList",
          "traits": {
            "smithy.api#documentation": "<p>Granted license metadata.</p>"
          }
        },
        "CreateTime": {
          "target": "com.amazonaws.licensemanager#ISO8601DateTime",
          "traits": {
            "smithy.api#documentation": "<p>Creation time of the granted license.</p>"

  }
        },
        "Version": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Version of the granted license.</p>"
          }
        },
        "ReceivedMetadata": {
          "target": "com.amazonaws.licensemanager#ReceivedMetadata",
          "traits": {
```

```
                "smithy.api#documentation": "<p>Granted license received metadata.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>Describes a license that is granted to a grantee.</p>"
          }
        },
        "com.amazonaws.licensemanager#GrantedLicenseList": {
          "type": "list",
          "member": {
            "target": "com.amazonaws.licensemanager#GrantedLicense"
          }
        },
        "com.amazonaws.licensemanager#ISO8601DateTime":
{
          "type": "string",
          "traits": {
            "smithy.api#length": {
              "min": 0,
              "max": 50
            },
            "smithy.api#pattern": "^(-?(?:[1-9][0-9]*)?[0-9]{4})-(1[0-2]|0[1-9])-(3[0-1]|0[1-9]|[1-2][0-9])T(2[0-3]|[0-
1][0-9]):([0-5][0-9]):([0-5][0-9])(\\.[0-9]+)?(Z|[+-](?:2[ 0-3]|[0-1][0-9]):[0-5][0-9])+$"
          }
        },
        "com.amazonaws.licensemanager#Integer": {
          "type": "integer"
        },
        "com.amazonaws.licensemanager#InvalidParameterValueException": {
          "type": "structure",
          "members": {
            "Message": {
              "target": "com.amazonaws.licensemanager#Message"
            }
          },
          "traits": {
            "aws.protocols#awsQueryError": {
              "code": "InvalidParameterValueProvided",
              "httpResponseCode": 400
            },
            "smithy.api#documentation":
"<p>One or more parameter values are not valid.</p>",
            "smithy.api#error": "client",
            "smithy.api#httpError": 400
          }
        },
        "com.amazonaws.licensemanager#InvalidResourceStateException": {
```

```
        "type": "structure",
        "members": {
          "Message": {
            "target": "com.amazonaws.licensemanager#Message"
          }
        },
        "traits": {
          "aws.protocols#awsQueryError": {
            "code": "InvalidResourceState",
            "httpResponseCode": 400
          },
          "smithy.api#documentation": "<p>License Manager cannot allocate a license to a resource because of its
state. </p>\n         <p>For example, you cannot allocate a license to an instance in the process of shutting\n
down.</p>",
          "smithy.api#error": "client",
          "smithy.api#httpError": 400
        }
      },

      "com.amazonaws.licensemanager#InventoryFilter": {
        "type": "structure",
        "members": {
          "Name": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Name of the filter.</p>",
              "smithy.api#required": {}
            }
          },
          "Condition": {
            "target": "com.amazonaws.licensemanager#InventoryFilterCondition",
            "traits": {
              "smithy.api#documentation": "<p>Condition of the filter.</p>",
              "smithy.api#required": {}
            }
          },
          "Value": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Value of the filter.</p>"
            }
          }

    },
        "traits": {
          "smithy.api#documentation": "<p>An inventory filter.</p>"
        }
      },
```

```
"com.amazonaws.licensemanager#InventoryFilterCondition": {
    "type": "enum",
    "members": {
        "EQUALS": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "EQUALS"
            }
        },
        "NOT_EQUALS": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "NOT_EQUALS"
            }
        },
        "BEGINS_WITH": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "BEGINS_WITH"
            }
        },
        "CONTAINS": {
            "target": "smithy.api#Unit",
            "traits": {
                 "smithy.api#enumValue": "CONTAINS"
            }
        }
    }
},
"com.amazonaws.licensemanager#InventoryFilterList": {
    "type": "list",
    "member": {
        "target": "com.amazonaws.licensemanager#InventoryFilter"
    }
},
"com.amazonaws.licensemanager#Issuer": {
    "type": "structure",
    "members": {
        "Name": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Issuer name.</p>",
                "smithy.api#required": {}
            }
        },
        "SignKey": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
```

```
                "smithy.api#documentation": "<p>Asymmetric KMS key from Key Management Service. The KMS key must have a key usage
 of sign and verify, \n         and support the RSASSA-PSS SHA-256 signing algorithm.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>Details about the issuer of a license.</p>"
          }
        },
        "com.amazonaws.licensemanager#IssuerDetails": {
          "type": "structure",
          "members": {
            "Name": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Issuer name.</p>"
              }
            },
            "SignKey": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Asymmetric KMS key from Key Management Service. The KMS key must have a key usage of sign and verify, \n         and support the RSASSA-PSS SHA-256 signing algorithm.</p>"
               }
            },
            "KeyFingerprint": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Issuer key fingerprint.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>Details associated with the issuer of a license.</p>"
          }
        },
        "com.amazonaws.licensemanager#License": {
          "type": "structure",
          "members": {
            "LicenseArn": {
              "target": "com.amazonaws.licensemanager#Arn",
              "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>"
              }
            },
            "LicenseName": {
```

```
            "target": "com.amazonaws.licensemanager#String",
            "traits": {

          "smithy.api#documentation": "<p>License name.</p>"
            }
          },
          "ProductName": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Product name.</p>"
            }
          },
          "ProductSKU": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Product SKU.</p>"
            }
          },
          "Issuer": {
            "target": "com.amazonaws.licensemanager#IssuerDetails",
            "traits": {
              "smithy.api#documentation": "<p>License issuer.</p>"
            }
          },
          "HomeRegion": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {

          "smithy.api#documentation": "<p>Home Region of the license.</p>"
            }
          },
          "Status": {
            "target": "com.amazonaws.licensemanager#LicenseStatus",
            "traits": {
              "smithy.api#documentation": "<p>License status.</p>"
            }
          },
          "Validity": {
            "target": "com.amazonaws.licensemanager#DatetimeRange",
            "traits": {
              "smithy.api#documentation": "<p>Date and time range during which the license is valid, in ISO8601-
UTC format.</p>"
            }
          },
          "Beneficiary": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>License beneficiary.</p>"
```

```
            }
          },
          "Entitlements": {

  "target": "com.amazonaws.licensemanager#EntitlementList",
            "traits": {
              "smithy.api#documentation": "<p>License entitlements.</p>"
            }
          },
          "ConsumptionConfiguration": {
            "target": "com.amazonaws.licensemanager#ConsumptionConfiguration",
            "traits": {
              "smithy.api#documentation": "<p>Configuration for consumption of the license.</p>"
            }
          },
          "LicenseMetadata": {
            "target": "com.amazonaws.licensemanager#MetadataList",
            "traits": {
              "smithy.api#documentation": "<p>License metadata.</p>"
            }
          },
          "CreateTime": {
            "target": "com.amazonaws.licensemanager#ISO8601DateTime",
            "traits": {
              "smithy.api#documentation": "<p>License
creation time.</p>"
            }
          },
          "Version": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>License version.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Software license that is managed in License Manager.</p>"
        }
      },
      "com.amazonaws.licensemanager#LicenseConfiguration": {
        "type": "structure",
        "members": {
          "LicenseConfigurationId": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Unique ID of the license configuration.</p>"
            }
          },
```

```
        "LicenseConfigurationArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license configuration.</p>"
            }
        },
        "Name": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Name of the license configuration.</p>"
            }
        },
        "Description": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Description of the license configuration.</p>"
            }
        },
        "LicenseCountingType": {
            "target": "com.amazonaws.licensemanager#LicenseCountingType",
            "traits": {
                "smithy.api#documentation": "<p>Dimension to use to track the license inventory.</p>"
            }
        },
        "LicenseRules": {
            "target": "com.amazonaws.licensemanager#StringList",
            "traits": {
                "smithy.api#documentation": "<p>License rules.</p>"
            }
        },
        "LicenseCount": {
            "target": "com.amazonaws.licensemanager#BoxLong",
            "traits": {
                "smithy.api#documentation": "<p>Number of licenses managed by the license configuration.</p>"
            }
        },
        "LicenseCountHardLimit": {
            "target": "com.amazonaws.licensemanager#BoxBoolean",
            "traits": {
                "smithy.api#documentation": "<p>Number of available licenses as a hard limit.</p>"
            }
        },
        "DisassociateWhenNotFound": {
            "target": "com.amazonaws.licensemanager#BoxBoolean",
            "traits": {
                "smithy.api#documentation": "<p>When true, disassociates a resource when software is
uninstalled.</p>"
            }
```

```
    },
    "ConsumedLicenses": {
      "target": "com.amazonaws.licensemanager#BoxLong",
      "traits": {
        "smithy.api#documentation": "<p>Number of licenses consumed. </p>"
      }
    },
    "Status": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {
        "smithy.api#documentation": "<p>Status of the license configuration.</p>"
      }
    },
    "OwnerAccountId": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {
        "smithy.api#documentation": "<p>Account ID of the license configuration's owner.</p>"

   }
    },
    "ConsumedLicenseSummaryList": {
      "target": "com.amazonaws.licensemanager#ConsumedLicenseSummaryList",
      "traits": {
        "smithy.api#documentation": "<p>Summaries for licenses consumed by various resources.</p>"
      }
    },
    "ManagedResourceSummaryList": {
      "target": "com.amazonaws.licensemanager#ManagedResourceSummaryList",
      "traits": {
        "smithy.api#documentation": "<p>Summaries for managed resources.</p>"
      }
    },
    "ProductInformationList": {
      "target": "com.amazonaws.licensemanager#ProductInformationList",
      "traits": {
        "smithy.api#documentation": "<p>Product information.</p>"
      }
    },
    "AutomatedDiscoveryInformation": {

      "target": "com.amazonaws.licensemanager#AutomatedDiscoveryInformation",
      "traits": {
        "smithy.api#documentation": "<p>Automated discovery information.</p>"
      }
    }
  },
  "traits": {
    "smithy.api#documentation": "<p>A license configuration is an abstraction of a customer license
```

```
agreement that can be\n consumed and enforced by License Manager. Components include specifications for the license\n type (licensing by instance, socket, CPU, or vCPU), allowed tenancy (shared tenancy, \n Dedicated Instance, Dedicated Host, or all of these), host affinity (how long a VM\n must be associated with a host), and the number of licenses purchased and used.</p>"
        }
      },
      "com.amazonaws.licensemanager#LicenseConfigurationAssociation": {
        "type": "structure",
        "members": {
          "ResourceArn":
{
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the resource.</p>"
            }
          },
          "ResourceType": {
            "target": "com.amazonaws.licensemanager#ResourceType",
            "traits": {
              "smithy.api#documentation": "<p>Type of server resource.</p>"
            }
          },
          "ResourceOwnerId": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>ID of the Amazon Web Services account that owns the resource consuming licenses.</p>"
            }
          },
          "AssociationTime": {
            "target": "com.amazonaws.licensemanager#DateTime",
            "traits": {

    "smithy.api#documentation": "<p>Time when the license configuration was associated with the resource.</p>"
            }
          },
          "AmiAssociationScope": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Scope of AMI associations. The possible value is <code>cross-account</code>.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Describes an association with a license configuration.</p>"
        }
      },
```

```
    "com.amazonaws.licensemanager#LicenseConfigurationAssociations": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanager#LicenseConfigurationAssociation"
      }
    },
    "com.amazonaws.licensemanager#LicenseConfigurationStatus": {
      "type": "enum",
      "members":
{
        "AVAILABLE": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "AVAILABLE"
          }
        },
        "DISABLED": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "DISABLED"
          }
        }
      }
    },
    "com.amazonaws.licensemanager#LicenseConfigurationUsage": {
      "type": "structure",
      "members": {
        "ResourceArn": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the resource.</p>"
          }
        },
        "ResourceType": {
          "target": "com.amazonaws.licensemanager#ResourceType",
          "traits":
{
            "smithy.api#documentation": "<p>Type of resource.</p>"
          }
        },
        "ResourceStatus": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Status of the resource.</p>"
          }
        },
        "ResourceOwnerId": {
          "target": "com.amazonaws.licensemanager#String",
```

```
            "traits": {
                "smithy.api#documentation": "<p>ID of the account that owns the resource.</p>"
            }
        },
        "AssociationTime": {
            "target": "com.amazonaws.licensemanager#DateTime",
            "traits": {
                "smithy.api#documentation": "<p>Time when the license configuration was initially associated with the resource.</p>"
            }
        },

    "ConsumedLicenses": {
            "target": "com.amazonaws.licensemanager#BoxLong",
            "traits": {
                "smithy.api#documentation": "<p>Number of licenses consumed by the resource.</p>"
            }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>Details about the usage of a resource associated with a license configuration.</p>"
      }
    },
    "com.amazonaws.licensemanager#LicenseConfigurationUsageList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanager#LicenseConfigurationUsage"
      }
    },
    "com.amazonaws.licensemanager#LicenseConfigurations": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanager#LicenseConfiguration"
      }
    },
    "com.amazonaws.licensemanager#LicenseConversionContext": {

  "type": "structure",
      "members": {
        "UsageOperation": {
          "target": "com.amazonaws.licensemanager#UsageOperation",
          "traits": {
            "smithy.api#documentation": "<p>The Usage operation value that corresponds to the license type you are converting your resource from.  For more information about which platforms correspond to which usage operation values see <a href=\"https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/billing-info-fields.html#billing-info\">Sample data: usage operation by platform\n      </a>\n        </p>"
          }
```

```
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>Information about a license type conversion task.</p>"
          }
        },
        "com.amazonaws.licensemanager#LicenseConversionTask": {
          "type": "structure",
          "members": {
            "LicenseConversionTaskId": {

         "target": "com.amazonaws.licensemanager#LicenseConversionTaskId",
              "traits": {
                "smithy.api#documentation": "<p>The ID of the license type conversion task.</p>"
              }
            },
            "ResourceArn": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the resource associated
with the license type\n         conversion task.</p>"
              }
            },
            "SourceLicenseContext": {
              "target": "com.amazonaws.licensemanager#LicenseConversionContext",
              "traits": {
                "smithy.api#documentation": "<p>Information about the license type this conversion task converted
from.</p>"
              }
            },
            "DestinationLicenseContext": {
              "target":
 "com.amazonaws.licensemanager#LicenseConversionContext",
              "traits": {
                "smithy.api#documentation": "<p>Information about the license type this conversion task converted
to.</p>"
              }
            },
            "Status": {
              "target": "com.amazonaws.licensemanager#LicenseConversionTaskStatus",
              "traits": {
                "smithy.api#documentation": "<p>The status of the conversion task.</p>"
              }
            },
            "StatusMessage": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>The status message for the conversion task.</p>"
```

```
            }
          },
          "StartTime": {
            "target": "com.amazonaws.licensemanager#DateTime",
            "traits": {
              "smithy.api#documentation":
 "<p>The time the conversion task was started at.</p>"
            }
          },
          "LicenseConversionTime": {
            "target": "com.amazonaws.licensemanager#DateTime",
            "traits": {
              "smithy.api#documentation": "<p>The time the usage operation value of the resource was
changed.</p>"
            }
          },
          "EndTime": {
            "target": "com.amazonaws.licensemanager#DateTime",
            "traits": {
              "smithy.api#documentation": "<p>The time the conversion task was completed.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Information about a license type conversion task.</p>"
        }
      },
      "com.amazonaws.licensemanager#LicenseConversionTaskId": {
        "type": "string",
        "traits": {

         "smithy.api#length": {
            "min": 0,
            "max": 50
          },
          "smithy.api#pattern": "^lct-[a-zA-Z0-9]*$"
        }
      },
      "com.amazonaws.licensemanager#LicenseConversionTaskStatus": {
        "type": "enum",
        "members": {
          "IN_PROGRESS": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "IN_PROGRESS"
            }
          },
          "SUCCEEDED": {
```

```
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "SUCCEEDED"
            }
          },
          "FAILED": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "FAILED"
            }
          }
        }
      },
      "com.amazonaws.licensemanager#LicenseConversionTasks":
{
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#LicenseConversionTask"
        }
      },
      "com.amazonaws.licensemanager#LicenseCountingType": {
        "type": "enum",
        "members": {
          "VCPU": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "vCPU"
            }
          },
          "INSTANCE": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "Instance"
            }
          },
          "CORE": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "Core"
            }
          },
          "SOCKET": {
            "target": "smithy.api#Unit",
             "traits": {
              "smithy.api#enumValue": "Socket"
            }
          }
        }
```

```
},
"com.amazonaws.licensemanager#LicenseDeletionStatus": {
    "type": "enum",
    "members": {
        "PENDING_DELETE": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "PENDING_DELETE"
            }
        },
        "DELETED": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "DELETED"
            }
        }
    }
},
"com.amazonaws.licensemanager#LicenseList": {
    "type": "list",
    "member": {
        "target": "com.amazonaws.licensemanager#License"
    }
},
"com.amazonaws.licensemanager#LicenseOperationFailure": {

    "type": "structure",
    "members": {
        "ResourceArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the resource.</p>"
            }
        },
        "ResourceType": {
            "target": "com.amazonaws.licensemanager#ResourceType",
            "traits": {
                "smithy.api#documentation": "<p>Resource type.</p>"
            }
        },
        "ErrorMessage": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Error message.</p>"
            }
        },
        "FailureTime": {
            "target": "com.amazonaws.licensemanager#DateTime",
```

```
            "traits": {

        "smithy.api#documentation": "<p>Failure time.</p>"
            }
          },
          "OperationName": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Name of the operation.</p>"
            }
          },
          "ResourceOwnerId": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>ID of the Amazon Web Services account that owns the
resource.</p>"
            }
          },
          "OperationRequestedBy": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>The requester is \"License Manager Automated Discovery\".</p>"
            }
          },
          "MetadataList": {

            "target": "com.amazonaws.licensemanager#MetadataList",
            "traits": {
              "smithy.api#documentation": "<p>Reserved.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Describes the failure of a license operation.</p>"
        }
      },
      "com.amazonaws.licensemanager#LicenseOperationFailureList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#LicenseOperationFailure"
        }
      },
      "com.amazonaws.licensemanager#LicenseSpecification": {
        "type": "structure",
        "members": {
          "LicenseConfigurationArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
```

```
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license configuration.</p>",

                "smithy.api#required": {}
                }
            },
            "AmiAssociationScope": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                "smithy.api#documentation": "<p>Scope of AMI associations. The possible value is <code>cross-account</code>.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>Details for associating a license configuration with a resource.</p>"
        }
    },
    "com.amazonaws.licensemanager#LicenseSpecifications": {
        "type": "list",
        "member": {
            "target": "com.amazonaws.licensemanager#LicenseSpecification"
        }
    },
    "com.amazonaws.licensemanager#LicenseStatus": {
        "type": "enum",
        "members": {
            "AVAILABLE": {
                "target": "smithy.api#Unit",

            "traits": {
                "smithy.api#enumValue": "AVAILABLE"
                }
            },
            "PENDING_AVAILABLE": {
                "target": "smithy.api#Unit",
                "traits": {
                "smithy.api#enumValue": "PENDING_AVAILABLE"
                }
            },
            "DEACTIVATED": {
                "target": "smithy.api#Unit",
                "traits": {
                "smithy.api#enumValue": "DEACTIVATED"
                }
            },
            "SUSPENDED": {
                "target": "smithy.api#Unit",
```

```
            "traits": {
                "smithy.api#enumValue": "SUSPENDED"
            }
        },
        "EXPIRED": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "EXPIRED"
            }
        },

     "PENDING_DELETE": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "PENDING_DELETE"
            }
        },
        "DELETED": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "DELETED"
            }
        }
    }
},
"com.amazonaws.licensemanager#LicenseUsage": {
    "type": "structure",
    "members": {
        "EntitlementUsages": {
            "target": "com.amazonaws.licensemanager#EntitlementUsageList",
            "traits": {
                "smithy.api#documentation": "<p>License entitlement usages.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#documentation": "<p>Describes the entitlement usage associated with a license.</p>"

    }
},
"com.amazonaws.licensemanager#LicenseUsageException": {
    "type": "structure",
    "members": {
        "Message": {
            "target": "com.amazonaws.licensemanager#Message"
        }
    },
    "traits": {
```

```
            "aws.protocols#awsQueryError": {
               "code": "LicenseUsageFailure",
               "httpResponseCode": 412
            },
            "smithy.api#documentation": "<p>You do not have enough licenses available to support a new resource
launch.</p>",
            "smithy.api#error": "client",
            "smithy.api#httpError": 412
         }
      },
      "com.amazonaws.licensemanager#ListAssociationsForLicenseConfiguration": {
         "type": "operation",
         "input": {
            "target": "com.amazonaws.licensemanager#ListAssociationsForLicenseConfigurationRequest"
         },
         "output": {

      "target": "com.amazonaws.licensemanager#ListAssociationsForLicenseConfigurationResponse"
         },
         "errors": [
            {
               "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
               "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
               "target": "com.amazonaws.licensemanager#FilterLimitExceededException"
            },
            {
               "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
               "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
               "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Lists the resource associations for the
 specified license configuration.</p>\n         <p>Resource associations need not consume licenses from a license
configuration. \n         For example, an AMI or a stopped instance might not consume a license (depending on \n
the license rules).</p>"
         }
      },
      "com.amazonaws.licensemanager#ListAssociationsForLicenseConfigurationRequest": {
         "type": "structure",
```

```
        "members": {
          "LicenseConfigurationArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of a license configuration.</p>",
              "smithy.api#required": {}
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanager#BoxInteger",
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results
to return in a single call.</p>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#ListAssociationsForLicenseConfigurationResponse": {
        "type": "structure",
        "members": {
          "LicenseConfigurationAssociations": {
            "target": "com.amazonaws.licensemanager#LicenseConfigurationAssociations",
            "traits": {
              "smithy.api#documentation": "<p>Information about the associations for the license
configuration.</p>"
            }
          },
          "NextToken": {

 "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
```

```
"com.amazonaws.licensemanager#ListDistributedGrants": {
   "type": "operation",
   "input": {
      "target": "com.amazonaws.licensemanager#ListDistributedGrantsRequest"
   },
   "output": {
      "target": "com.amazonaws.licensemanager#ListDistributedGrantsResponse"
   },
   "errors": [
      {
         "target": "com.amazonaws.licensemanager#AccessDeniedException"
      },
      {
         "target": "com.amazonaws.licensemanager#AuthorizationException"
      },
      {
         "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
       },
      {
         "target": "com.amazonaws.licensemanager#RateLimitExceededException"
      },
      {
         "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
      },
      {
         "target": "com.amazonaws.licensemanager#ServerInternalException"
      },
      {
         "target": "com.amazonaws.licensemanager#ValidationException"
      }
   ],
   "traits": {
      "smithy.api#documentation": "<p>Lists the grants distributed for the specified license.</p>"
   }
},
"com.amazonaws.licensemanager#ListDistributedGrantsRequest": {
   "type": "structure",
   "members": {
      "GrantArns": {
         "target": "com.amazonaws.licensemanager#ArnList",
         "traits": {

      "smithy.api#documentation": "<p>Amazon Resource Names (ARNs) of the grants.</p>"
         }
      },
      "Filters": {
         "target": "com.amazonaws.licensemanager#FilterList",
         "traits": {
```

```
                "smithy.api#documentation": "<p>Filters to scope the results. The following filters are
supported:</p>\n        <ul>\n          <li>\n            <p>\n              <code>LicenseArn</code>\n            </p>\n
        </li>\n          <li>\n            <p>\n              <code>GrantStatus</code>\n            </p>\n          </li>\n
    <li>\n            <p>\n              <code>GranteePrincipalARN</code>\n            </p>\n          </li>\n
<li>\n            <p>\n              <code>ProductSKU</code>\n            </p>\n          </li>\n          <li>\n
<p>\n              <code>LicenseIssuerName</code>\n
          </p>\n          </li>\n        </ul>"
              }
            },
            "NextToken": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
              }
            },
            "MaxResults": {
              "target": "com.amazonaws.licensemanager#MaxSize100",
              "traits": {
                "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#input": {}
          }
        },
        "com.amazonaws.licensemanager#ListDistributedGrantsResponse": {
          "type": "structure",
          "members": {
            "Grants": {
              "target": "com.amazonaws.licensemanager#GrantList",

        "traits": {
                "smithy.api#documentation": "<p>Distributed grant details.</p>"
              }
            },
            "NextToken": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#output": {}
          }
        },
        "com.amazonaws.licensemanager#ListFailuresForLicenseConfigurationOperations": {
```

```
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#ListFailuresForLicenseConfigurationOperationsRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#ListFailuresForLicenseConfigurationOperationsResponse"
        },
        "errors": [
          {

"target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Lists the license configuration operations that failed.</p>"
        }
      },
      "com.amazonaws.licensemanager#ListFailuresForLicenseConfigurationOperationsRequest": {
        "type": "structure",
        "members": {
          "LicenseConfigurationArn": {
            "target": "com.amazonaws.licensemanager#String",
             "traits": {
               "smithy.api#documentation": "<p>Amazon Resource Name of the license configuration.</p>",
               "smithy.api#required": {}
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanager#BoxInteger",
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
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```
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#input": {}
          }
        },
        "com.amazonaws.licensemanager#ListFailuresForLicenseConfigurationOperationsResponse":
{
          "type": "structure",
          "members": {
            "LicenseOperationFailureList": {
              "target": "com.amazonaws.licensemanager#LicenseOperationFailureList",
              "traits": {
                "smithy.api#documentation": "<p>License configuration operations that failed.</p>"
              }
            },
            "NextToken": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#output": {}
          }
        },
        "com.amazonaws.licensemanager#ListLicenseConfigurations": {
          "type": "operation",
          "input": {
            "target": "com.amazonaws.licensemanager#ListLicenseConfigurationsRequest"
          },

      "output": {
            "target": "com.amazonaws.licensemanager#ListLicenseConfigurationsResponse"
          },
          "errors": [
            {
              "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
              "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
              "target": "com.amazonaws.licensemanager#FilterLimitExceededException"
            },
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            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists the license configurations
 for your account.</p>"
        }
    },
    "com.amazonaws.licensemanager#ListLicenseConfigurationsRequest": {
        "type": "structure",
        "members": {
            "LicenseConfigurationArns": {
                "target": "com.amazonaws.licensemanager#StringList",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Names (ARN) of the license
 configurations.</p>"
                }
            },
            "MaxResults": {
                "target": "com.amazonaws.licensemanager#BoxInteger",
                "traits": {
                    "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
                }
            },
            "NextToken": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Token for the next
 set of results.</p>"
                }
            },
            "Filters": {
                "target": "com.amazonaws.licensemanager#Filters",
                "traits": {
                    "smithy.api#documentation": "<p>Filters to scope the results. The following filters and logical
 operators\n        are supported:</p>\n        <ul>\n            <li>\n                <p>\n
 <code>licenseCountingType</code> - The dimension for which licenses are counted.\n                Possible values are
 <code>vCPU</code> | <code>Instance</code> | <code>Core</code> | <code>Socket</code>.\n                Logical
 operators are <code>EQUALS</code> | <code>NOT_EQUALS</code>.</p>\n            </li>\n            <li>\n
 <p>\n                <code>enforceLicenseCount</code> - A Boolean value that indicates whether hard license
 enforcement is used. \n                Logical operators are <code>EQUALS</code> |
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<code>NOT_EQUALS</code>.</p>\n
   </li>\n          <li>\n          <p>\n          <code>usagelimitExceeded</code> - A Boolean value that
indicates whether the available licenses have been exceeded. \n          Logical operators are
<code>EQUALS</code> | <code>NOT_EQUALS</code>.</p>\n          </li>\n          </ul>"
                }
             }
          },
          "traits": {
             "smithy.api#input": {}
          }
       },
       "com.amazonaws.licensemanager#ListLicenseConfigurationsResponse": {
          "type": "structure",
          "members": {
             "LicenseConfigurations": {
                "target": "com.amazonaws.licensemanager#LicenseConfigurations",
                "traits": {
                   "smithy.api#documentation": "<p>Information about the license configurations.</p>"
                }
             },
             "NextToken": {
                "target": "com.amazonaws.licensemanager#String",

              "traits": {
                   "smithy.api#documentation": "<p>Token for the next set of results.</p>"
                }
             }
          },
          "traits": {
             "smithy.api#output": {}
          }
       },
       "com.amazonaws.licensemanager#ListLicenseConversionTasks": {
          "type": "operation",
          "input": {
             "target": "com.amazonaws.licensemanager#ListLicenseConversionTasksRequest"
          },
          "output": {
             "target": "com.amazonaws.licensemanager#ListLicenseConversionTasksResponse"
          },
          "errors": [
             {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
             },
             {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
             },
             {
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            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Lists the license type conversion tasks for your account.</p>"
        }
      },
      "com.amazonaws.licensemanager#ListLicenseConversionTasksRequest": {
        "type": "structure",
        "members": {
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanager#BoxInteger",
            "traits": {

    "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          },
          "Filters": {
            "target": "com.amazonaws.licensemanager#Filters",
            "traits": {
              "smithy.api#documentation": "<p>\n        Filters to scope the results. Valid filters are
<code>ResourceArns</code> and <code>Status</code>.\n      </p>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#ListLicenseConversionTasksResponse": {
        "type": "structure",
        "members": {
          "LicenseConversionTasks": {
            "target": "com.amazonaws.licensemanager#LicenseConversionTasks",
            "traits": {
              "smithy.api#documentation": "<p>Information about the license configuration tasks for your
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account.</p>"
                }
            },
            "NextToken": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Token for the next set of results.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#ListLicenseManagerReportGenerators": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#ListLicenseManagerReportGeneratorsRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#ListLicenseManagerReportGeneratorsResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target":
"com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
```

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        ],
        "traits": {
          "smithy.api#documentation": "<p>Lists the report generators for your account.</p>"
        }
      },
      "com.amazonaws.licensemanager#ListLicenseManagerReportGeneratorsRequest":
{
        "type": "structure",
        "members": {
          "Filters": {
            "target": "com.amazonaws.licensemanager#FilterList",
            "traits": {
              "smithy.api#documentation": "<p>Filters to scope the results. The following filters are supported:
</p>\n      <ul>\n        <li>\n          <p>\n            <code>LicenseConfigurationArn</code>\n
</p>\n        </li>\n      </ul>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanager#MaxSize100",
            "traits":
{
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#ListLicenseManagerReportGeneratorsResponse": {
        "type": "structure",
        "members": {
          "ReportGenerators": {
            "target": "com.amazonaws.licensemanager#ReportGeneratorList",
            "traits": {
              "smithy.api#documentation": "<p>A report generator that creates periodic reports about your license
configurations.</p>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
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```
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }

        }
        },
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#ListLicenseSpecificationsForResource": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#ListLicenseSpecificationsForResourceRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#ListLicenseSpecificationsForResourceResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
             },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Describes the license configurations for the specified resource.</p>"
        }
    },
    "com.amazonaws.licensemanager#ListLicenseSpecificationsForResourceRequest": {
        "type": "structure",
        "members": {
            "ResourceArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of a resource that has an
associated license configuration.</p>",
                    "smithy.api#required": {}
                }
```

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        },
        "MaxResults": {
          "target": "com.amazonaws.licensemanager#BoxInteger",
          "traits": {

    "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
          }
        },
        "NextToken": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Token for the next set of results.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#ListLicenseSpecificationsForResourceResponse": {
      "type": "structure",
      "members": {
        "LicenseSpecifications": {
          "target": "com.amazonaws.licensemanager#LicenseSpecifications",
          "traits": {
            "smithy.api#documentation": "<p>License configurations associated with a resource.</p>"
          }
        },
        "NextToken": {
           "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Token for the next set of results.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanager#ListLicenseVersions": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#ListLicenseVersionsRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#ListLicenseVersionsResponse"
      },
      "errors": [
```

```
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Lists all versions of the specified license.</p>"
      }
    },
    "com.amazonaws.licensemanager#ListLicenseVersionsRequest": {
      "type": "structure",
      "members": {
        "LicenseArn": {
          "target": "com.amazonaws.licensemanager#Arn",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>",
            "smithy.api#required": {}
          }
        },
        "NextToken": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Token for the next set of results.</p>"
          }
        },
        "MaxResults": {
          "target": "com.amazonaws.licensemanager#MaxSize100",
          "traits": {
            "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#ListLicenseVersionsResponse": {
```

```
        "type": "structure",
        "members": {
          "Licenses": {
            "target": "com.amazonaws.licensemanager#LicenseList",
            "traits": {
              "smithy.api#documentation": "<p>License details.</p>"
            }
          },

"NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#ListLicenses": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#ListLicensesRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#ListLicensesResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
           },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          },
          {
            "target": "com.amazonaws.licensemanager#ValidationException"
          }
        ],
```

```
        "traits": {
            "smithy.api#documentation": "<p>Lists the licenses for your account.</p>"
        }
    },
    "com.amazonaws.licensemanager#ListLicensesRequest": {
        "type": "structure",
        "members": {
            "LicenseArns": {
                "target": "com.amazonaws.licensemanager#ArnList",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Names (ARNs) of the licenses.</p>"
                }
            },

     "Filters": {
                "target": "com.amazonaws.licensemanager#FilterList",
                "traits": {
                    "smithy.api#documentation": "<p>Filters to scope the results. The following filters are
supported:</p>\n        <ul>\n            <li>\n                <p>\n                    <code>Beneficiary</code>\n                </p>\n
        </li>\n            <li>\n                <p>\n                    <code>ProductSKU</code>\n                </p>\n            </li>\n
    <li>\n                <p>\n                    <code>Fingerprint</code>\n                </p>\n            </li>\n            <li>\n
<p>\n                    <code>Status</code>\n                </p>\n            </li>\n        </ul>"
                }
            },
            "NextToken": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Token
 for the next set of results.</p>"
                }
            },
            "MaxResults": {
                "target": "com.amazonaws.licensemanager#MaxSize100",
                "traits": {
                    "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#ListLicensesResponse": {
        "type": "structure",
        "members": {
            "Licenses": {
                "target": "com.amazonaws.licensemanager#LicenseList",
                "traits": {
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            "smithy.api#documentation": "<p>License details.</p>"
          }
        },
        "NextToken": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {

"smithy.api#documentation": "<p>Token for the next set of results.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanager#ListReceivedGrants": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#ListReceivedGrantsRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#ListReceivedGrantsResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
          "target": "com.amazonaws.licensemanager#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Lists grants that are received. Received grants are grants created while
```

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specifying the\n         recipient as this Amazon Web Services account, your organization, or an organizational unit\n
    (OU) to which this member account belongs.</p>"
        }
      },
      "com.amazonaws.licensemanager#ListReceivedGrantsForOrganization": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#ListReceivedGrantsForOrganizationRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#ListReceivedGrantsForOrganizationResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          },
          {
            "target":
 "com.amazonaws.licensemanager#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Lists the grants received for all accounts in the organization.</p>"
        }
      },
      "com.amazonaws.licensemanager#ListReceivedGrantsForOrganizationRequest": {
        "type": "structure",
        "members": {
          "LicenseArn": {
            "target": "com.amazonaws.licensemanager#Arn",
            "traits": {
              "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the received license.</p>",
              "smithy.api#required": {}
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            }
          },
          "Filters": {
            "target": "com.amazonaws.licensemanager#FilterList",
            "traits": {
              "smithy.api#documentation": "<p>Filters to scope the results. The following filters are
supported:</p>\n
    <ul>\n        <li>\n        <p>\n        <code>ParentArn</code>\n        </p>\n        </li>\n
<li>\n        <p>\n        <code>GranteePrincipalArn</code>\n        </p>\n        </li>\n        </ul>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanager#MaxSize100",
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#ListReceivedGrantsForOrganizationResponse":
{
        "type": "structure",
        "members": {
          "Grants": {
            "target": "com.amazonaws.licensemanager#GrantList",
            "traits": {
              "smithy.api#documentation": "<p>Lists the grants the organization has received.</p>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
```

```
    },
    "com.amazonaws.licensemanager#ListReceivedGrantsRequest": {
      "type": "structure",
      "members": {
        "GrantArns": {
          "target": "com.amazonaws.licensemanager#ArnList",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Names (ARNs) of the grants.</p>"
          }
        },
        "Filters": {
          "target": "com.amazonaws.licensemanager#FilterList",
          "traits": {
            "smithy.api#documentation": "<p>Filters to scope the results. The following filters are
supported:</p>\n        <ul>\n          <li>\n            <p>\n              <code>ProductSKU</code>\n            </p>\n
        </li>\n          <li>\n            <p>\n              <code>LicenseIssuerName</code>\n            </p>\n
</li>\n          <li>\n            <p>\n              <code>LicenseArn</code>\n            </p>\n          </li>\n
<li>\n            <p>\n              <code>GrantStatus</code>\n            </p>\n          </li>\n          <li>\n
<p>\n
        <code>GranterAccountId</code>\n            </p>\n          </li>\n        </ul>"
          }
        },
        "NextToken": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Token for the next set of results.</p>"
          }
        },
        "MaxResults": {
          "target": "com.amazonaws.licensemanager#MaxSize100",
          "traits": {
            "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#ListReceivedGrantsResponse": {
      "type": "structure",
      "members": {
        "Grants": {
          "target": "com.amazonaws.licensemanager#GrantList",
          "traits": {
            "smithy.api#documentation": "<p>Received grant details.</p>"
          }
        },
```

```
        "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#output": {}
    }
},
"com.amazonaws.licensemanager#ListReceivedLicenses": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanager#ListReceivedLicensesRequest"
    },
    "output": {
        "target": "com.amazonaws.licensemanager#ListReceivedLicensesResponse"
    },
    "errors": [
        {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
            "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
        },
        {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
            "target": "com.amazonaws.licensemanager#ValidationException"
        }
    ],
    "traits": {
        "smithy.api#documentation": "<p>Lists received licenses.</p>"
    }
},
"com.amazonaws.licensemanager#ListReceivedLicensesForOrganization":
```

```
{
        "type": "operation",
        "input": {
           "target": "com.amazonaws.licensemanager#ListReceivedLicensesForOrganizationRequest"
        },
        "output": {
           "target": "com.amazonaws.licensemanager#ListReceivedLicensesForOrganizationResponse"
        },
        "errors": [
           {
              "target": "com.amazonaws.licensemanager#AccessDeniedException"
           },
           {
              "target": "com.amazonaws.licensemanager#AuthorizationException"
           },
           {
              "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
           },
           {
              "target": "com.amazonaws.licensemanager#RateLimitExceededException"
           },
           {
              "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
           },
           {

     "target": "com.amazonaws.licensemanager#ServerInternalException"
           },
           {
              "target": "com.amazonaws.licensemanager#ValidationException"
           }
        ],
        "traits": {
           "smithy.api#documentation": "<p>Lists the licenses received for all accounts in the organization.</p>"
        }
     },
     "com.amazonaws.licensemanager#ListReceivedLicensesForOrganizationRequest": {
        "type": "structure",
        "members": {
           "Filters": {
              "target": "com.amazonaws.licensemanager#FilterList",
              "traits": {
                 "smithy.api#documentation": "<p>Filters to scope the results. The following filters are
supported:</p>\n        <ul>\n          <li>\n            <p>\n              <code>Beneficiary</code>\n            </p>\n
      </li>\n          <li>\n            <p>\n              <code>ProductSKU</code>\n
           </p>\n          </li>\n        </ul>"
              }
           },
```

```
        "NextToken": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Token for the next set of results.</p>"
          }
        },
        "MaxResults": {
          "target": "com.amazonaws.licensemanager#MaxSize100",
          "traits": {
            "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#ListReceivedLicensesForOrganizationResponse": {
      "type": "structure",
      "members": {
        "Licenses": {
          "target": "com.amazonaws.licensemanager#GrantedLicenseList",
           "traits": {
            "smithy.api#documentation": "<p>Lists the licenses the organization has received.</p>"
          }
        },
        "NextToken": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Token for the next set of results.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanager#ListReceivedLicensesRequest": {
      "type": "structure",
      "members": {
        "LicenseArns": {
          "target": "com.amazonaws.licensemanager#ArnList",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Names (ARNs) of the licenses.</p>"
          }
        },
```

```
        "Filters": {
            "target": "com.amazonaws.licensemanager#FilterList",
            "traits": {
                "smithy.api#documentation": "<p>Filters to scope the results. The following filters are
supported:</p>\n        <ul>\n          <li>\n            <p>\n              <code>ProductSKU</code>\n            </p>\n
        </li>\n          <li>\n            <p>\n              <code>Status</code>\n            </p>\n          </li>\n
<li>\n            <p>\n              <code>Fingerprint</code>\n            </p>\n          </li>\n          <li>\n
<p>\n              <code>IssuerName</code>\n            </p>\n          </li>\n          <li>\n            <p>\n
<code>Beneficiary</code>\n            </p>\n          </li>\n        </ul>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
             "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanager#MaxSize100",
            "traits": {
                "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#ListReceivedLicensesResponse": {
        "type": "structure",
        "members": {
          "Licenses": {
            "target": "com.amazonaws.licensemanager#GrantedLicenseList",
            "traits": {
                "smithy.api#documentation": "<p>Received license details.</p>"
            }
          },

          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
```

```
},
"com.amazonaws.licensemanager#ListResourceInventory": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanager#ListResourceInventoryRequest"
    },
    "output": {
        "target": "com.amazonaws.licensemanager#ListResourceInventoryResponse"
    },
    "errors": [
        {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
             "target": "com.amazonaws.licensemanager#FailedDependencyException"
        },
        {
            "target": "com.amazonaws.licensemanager#FilterLimitExceededException"
        },
        {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
        }
    ],
    "traits": {
        "smithy.api#documentation": "<p>Lists resources managed using Systems Manager inventory.</p>"
    }
},
"com.amazonaws.licensemanager#ListResourceInventoryRequest": {
    "type": "structure",
    "members": {
        "MaxResults": {
            "target": "com.amazonaws.licensemanager#BoxInteger",
             "traits": {
                "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
        },
        "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
```

```
            "smithy.api#documentation": "<p>Token for the next set of results.</p>"
          }
        },
        "Filters": {
          "target": "com.amazonaws.licensemanager#InventoryFilterList",
          "traits": {
            "smithy.api#documentation": "<p>Filters to scope the results. The following filters and logical
operators\n are supported:</p>\n <ul>\n <li>\n <p>\n <code>account_id</code>
- The ID of the Amazon Web Services account that owns the resource.\n Logical operators are
<code>EQUALS</code> | <code>NOT_EQUALS</code>.</p>\n
 </li>\n <li>\n <p>\n <code>application_name</code> - The name of the
application. \n Logical operators are <code>EQUALS</code> | <code>BEGINS_WITH</code>.</p>\n
 </li>\n <li>\n <p>\n <code>license_included</code> - The type of license included. \n
 Logical operators are <code>EQUALS</code> | <code>NOT_EQUALS</code>.\n Possible values
are <code>sql-server-enterprise</code> | \n <code>sql-server-standard</code> | \n <code>sql-
server-web</code> | \n <code>windows-server-datacenter</code>.</p>\n </li>\n <li>\n
 <p>\n <code>platform</code> - The platform of the resource.\n Logical operators are
<code>EQUALS</code> | <code>BEGINS_WITH</code>.</p>\n </li>\n <li>\n <p>\n
 <code>resource_id</code> - The ID of the resource. \n Logical operators are
<code>EQUALS</code> | <code>NOT_EQUALS</code>.</p>\n </li>\n <li>\n <p>\n
 <code>tag:<key></code> - The key/value combination of a tag assigned \n to the resource. Logical
operators are <code>EQUALS</code> (single account) or\n <code>EQUALS</code> |
<code>NOT_EQUALS</code> (cross account).</p>\n </li>\n </ul>"
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#ListResourceInventoryResponse": {
      "type": "structure",
      "members": {
        "ResourceInventoryList": {
          "target": "com.amazonaws.licensemanager#ResourceInventoryList",
          "traits": {
            "smithy.api#documentation": "<p>Information
 about the resources.</p>"
          }
        },
        "NextToken": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Token for the next set of results.</p>"
          }
        }
      },
      "traits": {
```

```
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#ListTagsForResource": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#ListTagsForResourceRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#ListTagsForResourceResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
             },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists the tags for the specified license configuration.</p>"
        }
    },
    "com.amazonaws.licensemanager#ListTagsForResourceRequest": {
        "type": "structure",
        "members": {
            "ResourceArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license
configuration.</p>",

    "smithy.api#required": {}
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
```

```
    },
    "com.amazonaws.licensemanager#ListTagsForResourceResponse": {
      "type": "structure",
      "members": {
        "Tags": {
          "target": "com.amazonaws.licensemanager#TagList",
          "traits": {
            "smithy.api#documentation": "<p>Information about the tags.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanager#ListTokens": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#ListTokensRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#ListTokensResponse"
      },
      "errors":
[
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
          "target": "com.amazonaws.licensemanager#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Lists your tokens.</p>"
      }
    },
    "com.amazonaws.licensemanager#ListTokensRequest": {
      "type": "structure",
      "members": {
```

```
            "TokenIds": {
              "target": "com.amazonaws.licensemanager#StringList",
              "traits": {

                "smithy.api#documentation": "<p>Token IDs.</p>"
              }
            },
            "Filters": {
              "target": "com.amazonaws.licensemanager#FilterList",
              "traits": {
                "smithy.api#documentation": "<p>Filters to scope the results. The following filter is supported:</p>\n
    <ul>\n        <li>\n        <p>\n        <code>LicenseArns</code>\n        </p>\n        </li>\n
</ul>"
              }
            },
            "NextToken": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
              }
            },
            "MaxResults": {
              "target": "com.amazonaws.licensemanager#MaxSize100",
              "traits": {
                "smithy.api#documentation":
 "<p>Maximum number of results to return in a single call.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#input": {}
          }
        },
        "com.amazonaws.licensemanager#ListTokensResponse": {
          "type": "structure",
          "members": {
            "Tokens": {
              "target": "com.amazonaws.licensemanager#TokenList",
              "traits": {
                "smithy.api#documentation": "<p>Received token details.</p>"
              }
            },
            "NextToken": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
              }
            }
```

```
        },
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#ListUsageForLicenseConfiguration":
{
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#ListUsageForLicenseConfigurationRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#ListUsageForLicenseConfigurationResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#FilterLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
             {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists all license usage records for a license configuration, displaying
license\n          consumption details by resource at a selected point in time. Use this action to audit the\n          current
license consumption for any license inventory and configuration.</p>"
        }
    },
    "com.amazonaws.licensemanager#ListUsageForLicenseConfigurationRequest": {
        "type": "structure",
        "members": {
            "LicenseConfigurationArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license
configuration.</p>",
```

```
                "smithy.api#required": {}
              }
            },
            "MaxResults": {
              "target": "com.amazonaws.licensemanager#BoxInteger",
              "traits": {
                "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
              }
            },
            "NextToken": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
              }
            },
            "Filters": {
              "target": "com.amazonaws.licensemanager#Filters",
              "traits": {
                "smithy.api#documentation": "<p>Filters to scope the results. The following filters and logical operators\n        are supported:</p>\n        <ul>\n          <li>\n            <p>\n              <code>resourceArn</code> - The ARN of the license configuration resource.\n              Logical operators are <code>EQUALS</code> | <code>NOT_EQUALS</code>.</p>\n          </li>\n          <li>\n            <p>\n              <code>resourceType</code> - The resource type (<code>EC2_INSTANCE</code> | <code>EC2_HOST</code> | <code>EC2_AMI</code> | <code>SYSTEMS_MANAGER_MANAGED_INSTANCE</code>). \n              Logical operators are <code>EQUALS</code> | <code>NOT_EQUALS</code>.</p>\n          </li>\n          <li>\n            <p>\n              <code>resourceAccount</code> - The ID of the account that owns the resource. \n              Logical operators are <code>EQUALS</code> | <code>NOT_EQUALS</code>.</p>\n          </li>\n        </ul>"
              }
            }
          },
          "traits": {
            "smithy.api#input": {}
          }
        },
        "com.amazonaws.licensemanager#ListUsageForLicenseConfigurationResponse": {
          "type": "structure",
          "members": {

            "LicenseConfigurationUsageList": {
              "target": "com.amazonaws.licensemanager#LicenseConfigurationUsageList",
              "traits": {
                "smithy.api#documentation": "<p>Information about the license configurations.</p>"
              }
            },
            "NextToken": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
```

```
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#output": {}
          }
        },
        "com.amazonaws.licensemanager#Location": {
          "type": "string"
        },
        "com.amazonaws.licensemanager#Long": {
          "type": "long"
        },
        "com.amazonaws.licensemanager#ManagedResourceSummary": {
          "type": "structure",
          "members": {
            "ResourceType":
{
              "target": "com.amazonaws.licensemanager#ResourceType",
              "traits": {
                "smithy.api#documentation": "<p>Type of resource associated with a license.</p>"
              }
            },
            "AssociationCount": {
              "target": "com.amazonaws.licensemanager#BoxLong",
              "traits": {
                "smithy.api#documentation": "<p>Number of resources associated with licenses.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>Summary information about a managed resource.</p>"
          }
        },
        "com.amazonaws.licensemanager#ManagedResourceSummaryList": {
          "type": "list",
          "member": {
            "target": "com.amazonaws.licensemanager#ManagedResourceSummary"
          }
        },
        "com.amazonaws.licensemanager#MaxSize100": {

        "type": "integer",
          "traits": {
            "smithy.api#range": {
              "min": 1,
              "max": 100
```

```
        }
    }
},
"com.amazonaws.licensemanager#MaxSize3StringList": {
    "type": "list",
    "member": {
        "target": "com.amazonaws.licensemanager#String"
    },
    "traits": {
        "smithy.api#length": {
            "min": 0,
            "max": 3
        }
    }
},
"com.amazonaws.licensemanager#Message": {
    "type": "string"
},
"com.amazonaws.licensemanager#Metadata": {
    "type": "structure",
    "members": {
        "Name": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>The key name.</p>"
            }
        },

"Value": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>The value.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#documentation": "<p>Describes key/value pairs.</p>"
    }
},
"com.amazonaws.licensemanager#MetadataList": {
    "type": "list",
    "member": {
        "target": "com.amazonaws.licensemanager#Metadata"
    }
},
"com.amazonaws.licensemanager#NoEntitlementsAllowedException": {
    "type": "structure",
    "members": {
```

```
            "Message": {
                "target": "com.amazonaws.licensemanager#Message"
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>There are no entitlements found for this license, or the entitlement maximum count is reached.</p>",
             "smithy.api#error": "client",
            "smithy.api#httpError": 400
        }
    },
    "com.amazonaws.licensemanager#Options": {
        "type": "structure",
        "members": {
            "ActivationOverrideBehavior": {
                "target": "com.amazonaws.licensemanager#ActivationOverrideBehavior",
                "traits": {
                    "smithy.api#documentation": "<p>An activation option for your grant that determines the behavior of activating a grant.\n          Activation options can only be used with granted licenses sourced from the Amazon Web Services Marketplace. Additionally, the operation must specify the value of <code>ACTIVE</code> for the\n <code>Status</code> parameter.</p>\n          <ul>\n             <li>\n                <p>As a license administrator, you can optionally specify an\n                   <code>ActivationOverrideBehavior</code> when activating a grant.</p>\n             </li>\n             <li>\n                <p>As a grantor, you can optionally specify an\n <code>ActivationOverrideBehavior</code> when you activate a grant for a grantee\n                   account in your organization.</p>\n             </li>\n             <li>\n                <p>As a grantee, if the grantor creating the distributed grant doesnt specify an\n                   <code>ActivationOverrideBehavior</code>, you can optionally specify one when you\n                   are activating the grant.</p>\n             </li>\n          </ul>\n          <dl>\n             <dt>DISTRIBUTED_GRANTS_ONLY</dt>\n             <dd>\n                <p>Use this value to activate a grant without replacing any member accounts\n                   active grants for the same product.</p>\n             </dd>\n             <dt>ALL_GRANTS_PERMITTED_BY_ISSUER</dt>\n             <dd>\n                <p>Use this value to activate a grant and disable other active grants in any\n                   member accounts
 for the same product. This action will also replace their\n                   previously activated grants with this activated grant.</p>\n             </dd>\n          </dl>"
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>The options you can specify when you create a new version of a grant, such as activation\n          override behavior. For more information, see <a href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/granted-licenses.html\">Granted licenses in License Manager</a> in the <i>License Manager User Guide</i>.</p>"
        }
    },
    "com.amazonaws.licensemanager#OrganizationConfiguration": {
        "type": "structure",
        "members": {
            "EnableIntegration": {
                "target": "com.amazonaws.licensemanager#Boolean",
```

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            "traits": {
              "smithy.api#default": false,
              "smithy.api#documentation":
"<p>Enables Organizations integration.</p>",
              "smithy.api#required": {}
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Configuration information for Organizations.</p>"
        }
      },
      "com.amazonaws.licensemanager#PrincipalArnList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#Arn"
        },
        "traits": {
          "smithy.api#length": {
            "min": 1,
            "max": 1
          }
        }
      },
      "com.amazonaws.licensemanager#ProductInformation": {
        "type": "structure",
        "members": {
          "ResourceType": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Resource type. The
possible values are <code>SSM_MANAGED</code> | <code>RDS</code>.</p>",
              "smithy.api#required": {}
            }
          },
          "ProductInformationFilterList": {
            "target": "com.amazonaws.licensemanager#ProductInformationFilterList",
            "traits": {
              "smithy.api#documentation": "<p>A Product information filter consists of a
<code>ProductInformationFilterComparator</code> which is a logical operator, a
<code>ProductInformationFilterName</code> which specifies the type of filter being declared, and a
<code>ProductInformationFilterValue</code> that specifies the value to filter on. </p>\n          <p>Accepted values
for <code>ProductInformationFilterName</code> are listed here along with descriptions and valid options for
<code>ProductInformationFilterComparator</code>. </p>\n          <p>The following filters and are supported when
the resource type \n          is <code>SSM_MANAGED</code>:</p>\n
          <ul>\n            <li>\n              <p>\n                <code>Application Name</code> - The name of the
application.\n                Logical operator is <code>EQUALS</code>.</p>\n            </li>\n            <li>\n
<p>\n                <code>Application Publisher</code> - The publisher of the application.\n                Logical
```

operator is <code>EQUALS</code>. \n \n \n \n <code>Application Version</code> - The version of the application.\n Logical operator is <code>EQUALS</code>. \n \n \n \n <code>Platform Name</code> - The name of the platform.\n Logical operator is <code>EQUALS</code>. \n \n \n \n <code>Platform Type</code> - The platform type.\n Logical operator is <code>EQUALS</code>. \n \n \n \n <code>Tag:key</code> - The key of a tag attached to an Amazon Web Services resource you wish to exclude from automated discovery. Logical operator is <code>NOT_EQUALS</code>. The key for your tag must be appended to <code>Tag:</code> following the example: <code>Tag:name-of-your-key</code>. <code>ProductInformationFilterValue</code> is optional if you are not using values for the key.\n \n \n \n \n <code>AccountId</code> - The 12-digit ID of an Amazon Web Services account you wish to exclude from automated discovery.\n Logical operator is <code>NOT_EQUALS</code>. \n \n \n \n <code>License Included</code> - The type of license included.\n Logical operators are <code>EQUALS</code> and <code>NOT_EQUALS</code>.\n Possible values are: <code>sql-server-enterprise</code> | \n <code>sql-server-standard</code> | \n <code>sql-server-web</code> | \n <code>windows-server-datacenter</code>. \n \n \n The following filters and logical operators are supported when the resource type\n is <code>RDS</code>: \n \n \n \n <code>Engine Edition</code> - The edition of the database engine.\n Logical operator is <code>EQUALS</code>.\n Possible values are: <code>oracle-ee</code> | <code>oracle-se</code> | <code>oracle-se1</code> | <code>oracle-se2</code>. \n \n \n \n <code>License Pack</code> - The license pack.\n Logical operator is <code>EQUALS</code>.\n Possible values are: <code>data guard</code> | \n <code>diagnostic pack sqlt</code> | \n <code>tuning pack sqlt</code> | \n <code>ols</code> | \n <code>olap</code>. \n \n ",
                "smithy.api#required": {}
            }
        }
    },
    "traits": {
        "smithy.api#documentation": " Describes product information for a license configuration. "
    }
},
"com.amazonaws.licensemanager#ProductInformationFilter": {
    "type": "structure",
    "members": {
        "ProductInformationFilterName": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": " Filter name. ",
                "smithy.api#required": {}
            }
        },
        "ProductInformationFilterValue": {
            "target": "com.amazonaws.licensemanager#StringList",

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      "traits": {
            "smithy.api#documentation": "<p>Filter value.</p>"
          }
        },
        "ProductInformationFilterComparator": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Logical operator.</p>",
            "smithy.api#required": {}
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>Describes product information filters.</p>"
      }
    },
    "com.amazonaws.licensemanager#ProductInformationFilterList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanager#ProductInformationFilter"
      }
    },
    "com.amazonaws.licensemanager#ProductInformationList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanager#ProductInformation"
      }
    },
    "com.amazonaws.licensemanager#ProvisionalConfiguration": {
      "type": "structure",
      "members": {
        "MaxTimeToLiveInMinutes": {
          "target": "com.amazonaws.licensemanager#BoxInteger",
          "traits": {
            "smithy.api#documentation": "<p>Maximum time for the provisional configuration, in minutes.</p>",
            "smithy.api#required": {}
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>Details about a provisional configuration.</p>"
      }
    },
    "com.amazonaws.licensemanager#RateLimitExceededException": {
      "type": "structure",
      "members": {
        "Message": {
          "target": "com.amazonaws.licensemanager#Message"
```

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            }
        },
        "traits": {
            "aws.protocols#awsQueryError": {
                "code": "RateLimitExceeded",
                "httpResponseCode": 429
            },
            "smithy.api#documentation": "<p>Too many requests have been submitted. Try again after a brief
wait.</p>",
            "smithy.api#error": "client",
            "smithy.api#httpError": 429
        }
    },
    "com.amazonaws.licensemanager#ReceivedMetadata": {
        "type": "structure",
        "members": {
            "ReceivedStatus": {
                "target": "com.amazonaws.licensemanager#ReceivedStatus",
                "traits": {
                    "smithy.api#documentation": "<p>Received status.</p>"
                }
            },
            "ReceivedStatusReason": {
                "target": "com.amazonaws.licensemanager#StatusReasonMessage",
                "traits": {
                    "smithy.api#documentation": "<p>Received
 status reason.</p>"
                }
            },
            "AllowedOperations": {
                "target": "com.amazonaws.licensemanager#AllowedOperationList",
                "traits": {
                    "smithy.api#documentation": "<p>Allowed operations.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>Metadata associated with received licenses and grants.</p>"
        }
    },
    "com.amazonaws.licensemanager#ReceivedStatus": {
        "type": "enum",
        "members": {
            "PENDING_WORKFLOW": {
                "target": "smithy.api#Unit",
                "traits": {
                    "smithy.api#enumValue": "PENDING_WORKFLOW"
                }
```

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            },
            "PENDING_ACCEPT": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue":
"PENDING_ACCEPT"
               }
            },
            "REJECTED": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "REJECTED"
               }
            },
            "ACTIVE": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "ACTIVE"
               }
            },
            "FAILED_WORKFLOW": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "FAILED_WORKFLOW"
               }
            },
            "DELETED": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "DELETED"
               }
            },
            "DISABLED": {
               "target": "smithy.api#Unit",
                "traits": {
                  "smithy.api#enumValue": "DISABLED"
               }
            },
            "WORKFLOW_COMPLETED": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "WORKFLOW_COMPLETED"
               }
            }
         }
      },
      "com.amazonaws.licensemanager#RedirectException": {
         "type": "structure",
```

```
      "members": {
        "Location": {
          "target": "com.amazonaws.licensemanager#Location",
          "traits": {
            "smithy.api#httpHeader": "Location"
          }
        },
        "Message": {
          "target": "com.amazonaws.licensemanager#Message"
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>This is not the correct Region for the resource. Try again.</p>",
         "smithy.api#error": "client",
        "smithy.api#httpError": 308
      }
    },
    "com.amazonaws.licensemanager#RejectGrant": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#RejectGrantRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#RejectGrantResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target":
"com.amazonaws.licensemanager#ResourceLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
          "target": "com.amazonaws.licensemanager#ValidationException"
        }
```

```
        ],
        "traits": {
            "smithy.api#documentation": "<p>Rejects the specified grant.</p>"
        }
    },
    "com.amazonaws.licensemanager#RejectGrantRequest": {
        "type": "structure",
        "members": {
            "GrantArn": {
                "target": "com.amazonaws.licensemanager#Arn",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the grant.</p>",
                    "smithy.api#required": {}
                }
            }
        },
        "traits": {
            "smithy.api#input": {}

}
    },
    "com.amazonaws.licensemanager#RejectGrantResponse": {
        "type": "structure",
        "members": {
            "GrantArn": {
                "target": "com.amazonaws.licensemanager#Arn",
                "traits": {
                    "smithy.api#documentation": "<p>Grant ARN.</p>"
                }
            },
            "Status": {
                "target": "com.amazonaws.licensemanager#GrantStatus",
                "traits": {
                    "smithy.api#documentation": "<p>Grant status.</p>"
                }
            },
            "Version": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Grant version.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#RenewType":
```

```
{
        "type": "enum",
        "members": {
          "NONE": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "None"
            }
          },
          "WEEKLY": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "Weekly"
            }
          },
          "MONTHLY": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "Monthly"
            }
          }
        }
      },
      "com.amazonaws.licensemanager#ReportContext": {
        "type": "structure",
        "members": {
          "licenseConfigurationArns": {
            "target": "com.amazonaws.licensemanager#ArnList",
            "traits": {

        "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license configuration that this
generator reports on.</p>",
              "smithy.api#required": {}
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Details of the license configuration that this generator reports on.</p>"
        }
      },
      "com.amazonaws.licensemanager#ReportFrequency": {
        "type": "structure",
        "members": {
          "value": {
            "target": "com.amazonaws.licensemanager#Integer",
            "traits": {
              "smithy.api#documentation": "<p>Number of times within the frequency period that a report is
generated.  \n        The only supported value is <code>1</code>.</p>"
```

```
            }
          },
          "period": {
            "target": "com.amazonaws.licensemanager#ReportFrequencyType",

           "traits": {
              "smithy.api#documentation": "<p>Time period between each report. The period can be daily, weekly,
or monthly.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Details about how frequently reports are generated.</p>"
        }
      },
      "com.amazonaws.licensemanager#ReportFrequencyType": {
        "type": "enum",
        "members": {
          "DAY": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "DAY"
            }
          },
          "WEEK": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "WEEK"
            }
          },
          "MONTH": {
            "target": "smithy.api#Unit",
            "traits":
{
              "smithy.api#enumValue": "MONTH"
            }
          }
        }
      },
      "com.amazonaws.licensemanager#ReportGenerator": {
        "type": "structure",
        "members": {
          "ReportGeneratorName": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Name of the report generator.</p>"
            }
          },
```

```
            "ReportType": {
                "target": "com.amazonaws.licensemanager#ReportTypeList",
                "traits": {
                    "smithy.api#documentation": "<p>Type of reports that are generated.</p>"
                }
            },
            "ReportContext": {
                "target": "com.amazonaws.licensemanager#ReportContext",
                "traits": {
                    "smithy.api#documentation": "<p>License
configuration type for this generator.</p>"
                }
            },
            "ReportFrequency": {
                "target": "com.amazonaws.licensemanager#ReportFrequency",
                "traits": {
                    "smithy.api#documentation": "<p>Details about how frequently reports are generated.</p>"
                }
            },
            "LicenseManagerReportGeneratorArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the report generator.</p>"
                }
            },
            "LastRunStatus": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Status of the last report generation attempt.</p>"
                }
            },
            "LastRunFailureReason":
{
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Failure message for the last report generation attempt.</p>"
                }
            },
            "LastReportGenerationTime": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Time the last report was generated at.</p>"
                }
            },
            "ReportCreatorAccount": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>The Amazon Web Services account ID used to create the report
```

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generator.</p>"
                }
            },
            "Description": {
                "target": "com.amazonaws.licensemanager#String",

        "traits": {
                    "smithy.api#documentation": "<p>Description of the report generator.</p>"
                }
            },
            "S3Location": {
                "target": "com.amazonaws.licensemanager#S3Location",
                "traits": {
                    "smithy.api#documentation": "<p>Details of the S3 bucket that report generator reports are published
to.</p>"
                }
            },
            "CreateTime": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Time the report was created.</p>"
                }
            },
            "Tags": {
                "target": "com.amazonaws.licensemanager#TagList",
                "traits": {
                    "smithy.api#documentation": "<p>Tags associated with the report generator.</p>"
                }

      }
        },
        "traits": {
            "smithy.api#documentation": "<p>Describe the details of a report generator.</p>"
        }
      },
      "com.amazonaws.licensemanager#ReportGeneratorList": {
        "type": "list",
        "member": {
            "target": "com.amazonaws.licensemanager#ReportGenerator"
        }
      },
      "com.amazonaws.licensemanager#ReportGeneratorName": {
        "type": "string",
        "traits": {
            "smithy.api#length": {
                "min": 1,
                "max": 100
            }
```

```
        }
      },
      "com.amazonaws.licensemanager#ReportType": {
        "type": "enum",
        "members": {
          "LICENSE_CONFIGURATION_SUMMARY_REPORT": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "LicenseConfigurationSummaryReport"
            }

      },
          "LICENSE_CONFIGURATION_USAGE_REPORT": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "LicenseConfigurationUsageReport"
            }
          }
        }
      },
      "com.amazonaws.licensemanager#ReportTypeList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#ReportType"
        }
      },
      "com.amazonaws.licensemanager#ResourceInventory": {
        "type": "structure",
        "members": {
          "ResourceId": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>ID of the resource.</p>"
            }
          },
          "ResourceType": {
            "target": "com.amazonaws.licensemanager#ResourceType",
            "traits":
{
              "smithy.api#documentation": "<p>Type of resource.</p>"
            }
          },
          "ResourceArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the resource.</p>"
            }
          },
```

```
            "Platform": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Platform of the resource.</p>"
               }
            },
            "PlatformVersion": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Platform version of the resource in the inventory.</p>"
               }
            },
            "ResourceOwningAccountId":
{
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>ID of the account that owns the resource.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#documentation": "<p>Details about a resource.</p>"
         }
      },
      "com.amazonaws.licensemanager#ResourceInventoryList": {
         "type": "list",
         "member": {
            "target": "com.amazonaws.licensemanager#ResourceInventory"
         }
      },
      "com.amazonaws.licensemanager#ResourceLimitExceededException": {
         "type": "structure",
         "members": {
            "Message": {
               "target": "com.amazonaws.licensemanager#Message"
            }
         },
         "traits": {
            "aws.protocols#awsQueryError": {
               "code": "ResourceLimitExceeded",

             "httpResponseCode": 400
            },
            "smithy.api#documentation": "<p>Your resource limits have been exceeded.</p>",
            "smithy.api#error": "client",
            "smithy.api#httpError": 400
         }
      },
```

```
"com.amazonaws.licensemanager#ResourceNotFoundException": {
    "type": "structure",
    "members": {
        "Message": {
            "target": "com.amazonaws.licensemanager#Message"
        }
    },
    "traits": {
        "aws.protocols#awsQueryError": {
            "code": "InvalidResource.NotFound",
            "httpResponseCode": 400
        },
        "smithy.api#documentation": "<p>The resource cannot be found.</p>",
        "smithy.api#error": "client",
        "smithy.api#httpError": 400
    }
},
"com.amazonaws.licensemanager#ResourceType": {
    "type": "enum",
     "members": {
        "EC2_INSTANCE": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "EC2_INSTANCE"
            }
        },
        "EC2_HOST": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "EC2_HOST"
            }
        },
        "EC2_AMI": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "EC2_AMI"
            }
        },
        "RDS": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "RDS"
            }
        },
        "SYSTEMS_MANAGER_MANAGED_INSTANCE": {
            "target": "smithy.api#Unit",
            "traits": {
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                    "smithy.api#enumValue": "SYSTEMS_MANAGER_MANAGED_INSTANCE"
                }
            }
        }
    },
    "com.amazonaws.licensemanager#S3Location": {
        "type": "structure",
        "members": {
            "bucket": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Name of the S3 bucket reports are published to.</p>"
                }
            },
            "keyPrefix": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Prefix of the S3 bucket reports are published to.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>Details of the S3 bucket that report generator reports are published
to.</p>"
        }
    },
    "com.amazonaws.licensemanager#ServerInternalException": {
        "type": "structure",
        "members": {
            "Message": {
                "target": "com.amazonaws.licensemanager#Message"
            }
        },
        "traits": {
            "aws.protocols#awsQueryError": {
                "code": "InternalError",
                "httpResponseCode": 500
            },
            "smithy.api#documentation": "<p>The server experienced an internal error. Try again.</p>",
            "smithy.api#error": "server",
            "smithy.api#httpError": 500
        }
    },
    "com.amazonaws.licensemanager#SignedToken": {
        "type": "string",
        "traits": {
            "smithy.api#length": {
                "min": 4096
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            }
        }
    },
    "com.amazonaws.licensemanager#StatusReasonMessage": {
        "type": "string",
        "traits":
{
            "smithy.api#length": {
                "min": 0,
                "max": 400
            },
            "smithy.api#pattern": "^[\\s\\S]+$"
        }
    },
    "com.amazonaws.licensemanager#String": {
        "type": "string"
    },
    "com.amazonaws.licensemanager#StringList": {
        "type": "list",
        "member": {
            "target": "com.amazonaws.licensemanager#String"
        }
    },
    "com.amazonaws.licensemanager#Tag": {
        "type": "structure",
        "members": {
            "Key": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Tag key.</p>"
                }
            },
            "Value": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation":
"<p>Tag value.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>Details about a tag for a license configuration.</p>"
        }
    },
    "com.amazonaws.licensemanager#TagKeyList": {
        "type": "list",
        "member": {
            "target": "com.amazonaws.licensemanager#String"
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        }
      },
      "com.amazonaws.licensemanager#TagList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#Tag"
        }
      },
      "com.amazonaws.licensemanager#TagResource": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#TagResourceRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#TagResourceResponse"
        },
        "errors": [
          {
            "target":
 "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Adds the specified tags to the specified license configuration.</p>"
        }
      },
      "com.amazonaws.licensemanager#TagResourceRequest": {
        "type": "structure",
        "members": {
          "ResourceArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits":
 {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license
configuration.</p>",
              "smithy.api#required": {}
```

```
            }
          },
          "Tags": {
            "target": "com.amazonaws.licensemanager#TagList",
            "traits": {
              "smithy.api#documentation": "<p>One or more tags.</p>",
              "smithy.api#required": {}
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#TagResourceResponse": {
        "type": "structure",
        "members": {},
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#TokenData": {
        "type": "structure",
        "members": {
          "TokenId": {
            "target": "com.amazonaws.licensemanager#String",
             "traits": {
              "smithy.api#documentation": "<p>Token ID.</p>"
            }
          },
          "TokenType": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Type of token generated. The supported value is
<code>REFRESH_TOKEN</code>.</p>"
            }
          },
          "LicenseArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>"
            }
          },
          "ExpirationTime": {
            "target": "com.amazonaws.licensemanager#ISO8601DateTime",
            "traits": {
              "smithy.api#documentation": "<p>Token expiration time, in ISO8601-UTC
```

```
format.</p>"
                }
            },
            "TokenProperties": {
                "target": "com.amazonaws.licensemanager#MaxSize3StringList",
                "traits": {
                    "smithy.api#documentation": "<p>Data specified by the caller.</p>"
                }
            },
            "RoleArns": {
                "target": "com.amazonaws.licensemanager#ArnList",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Names (ARN) of the roles included in the
token.</p>"
                }
            },
            "Status": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Token status. The possible values are
<code>AVAILABLE</code> and <code>DELETED</code>.</p>"
                }
            }
        },
        "traits": {

          "smithy.api#documentation": "<p>Describes a token.</p>"
        }
    },
    "com.amazonaws.licensemanager#TokenList": {
        "type": "list",
        "member": {
            "target": "com.amazonaws.licensemanager#TokenData"
        }
    },
    "com.amazonaws.licensemanager#TokenString": {
        "type": "string",
        "traits": {
            "smithy.api#length": {
                "min": 0,
                "max": 4096
            },
            "smithy.api#pattern": "^\\S+$"
        }
    },
    "com.amazonaws.licensemanager#TokenType": {
        "type": "enum",
        "members": {
```

```
            "REFRESH_TOKEN": {
                "target": "smithy.api#Unit",
                "traits": {
                    "smithy.api#enumValue": "REFRESH_TOKEN"
                }
            }
        }
    },
    "com.amazonaws.licensemanager#UnsupportedDigitalSignatureMethodException":
{
        "type": "structure",
        "members": {
            "Message": {
                "target": "com.amazonaws.licensemanager#Message"
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>The digital signature method is unsupported. Try your request
again.</p>",
            "smithy.api#error": "client",
            "smithy.api#httpError": 400
        }
    },
    "com.amazonaws.licensemanager#UntagResource": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#UntagResourceRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#UntagResourceResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
             },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
```

```
        "traits": {
            "smithy.api#documentation": "<p>Removes the specified tags from the specified license
configuration.</p>"
        }
    },
    "com.amazonaws.licensemanager#UntagResourceRequest": {
        "type": "structure",
        "members": {
            "ResourceArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license
configuration.</p>",
                     "smithy.api#required": {}
                }
            },
            "TagKeys": {
                "target": "com.amazonaws.licensemanager#TagKeyList",
                "traits": {
                    "smithy.api#documentation": "<p>Keys identifying the tags to remove.</p>",
                    "smithy.api#required": {}
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#UntagResourceResponse": {
        "type": "structure",
        "members": {},
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#UpdateLicenseConfiguration": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#UpdateLicenseConfigurationRequest"
        },
        "output": {

 "target": "com.amazonaws.licensemanager#UpdateLicenseConfigurationResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
```

```
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Modifies the attributes of an existing license configuration.</p>"
        }
    },
    "com.amazonaws.licensemanager#UpdateLicenseConfigurationRequest": {
        "type": "structure",
        "members": {
            "LicenseConfigurationArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license
configuration.</p>",
                    "smithy.api#required": {}
                }
            },
            "LicenseConfigurationStatus": {
                "target": "com.amazonaws.licensemanager#LicenseConfigurationStatus",
                "traits": {
                    "smithy.api#documentation": "<p>New status of the license configuration.</p>"
                }
            },
            "LicenseRules": {
                "target": "com.amazonaws.licensemanager#StringList",
                "traits": {

    "smithy.api#documentation": "<p>New license rule. The only rule that you can add after you create a license\n
    configuration is licenseAffinityToHost.</p>"
                }
            },
            "LicenseCount": {
                "target": "com.amazonaws.licensemanager#BoxLong",
                "traits": {
```

```
                "smithy.api#documentation": "<p>New number of licenses managed by the license
configuration.</p>"
              }
            },
            "LicenseCountHardLimit": {
              "target": "com.amazonaws.licensemanager#BoxBoolean",
              "traits": {
                "smithy.api#documentation": "<p>New hard limit of the number of available licenses.</p>"
              }
            },
            "Name": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>New name
 of the license configuration.</p>"
              }
            },
            "Description": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>New description of the license configuration.</p>"
              }
            },
            "ProductInformationList": {
              "target": "com.amazonaws.licensemanager#ProductInformationList",
              "traits": {
                "smithy.api#documentation": "<p>New product information.</p>"
              }
            },
            "DisassociateWhenNotFound": {
              "target": "com.amazonaws.licensemanager#BoxBoolean",
              "traits": {
                "smithy.api#documentation": "<p>When true, disassociates a resource when software is
uninstalled.</p>"
              }
            }
          },
          "traits":
 {
            "smithy.api#input": {}
          }
        },
        "com.amazonaws.licensemanager#UpdateLicenseConfigurationResponse": {
          "type": "structure",
          "members": {},
          "traits": {
            "smithy.api#output": {}
          }
```

```
    },
    "com.amazonaws.licensemanager#UpdateLicenseManagerReportGenerator": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#UpdateLicenseManagerReportGeneratorRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#UpdateLicenseManagerReportGeneratorResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
         },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
          "target": "com.amazonaws.licensemanager#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Updates a report generator.</p>\n        <p>After you make changes to a
report generator, it starts generating new reports within 60 minutes of being updated.</p>"
      }
    },
    "com.amazonaws.licensemanager#UpdateLicenseManagerReportGeneratorRequest":
{
      "type": "structure",
      "members": {
        "LicenseManagerReportGeneratorArn": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the report generator to
```

update. ",
"smithy.api#required": {}
}
},
"ReportGeneratorName": {
"target": "com.amazonaws.licensemanager#ReportGeneratorName",
"traits": {
"smithy.api#documentation": " Name of the report generator. ",
"smithy.api#required": {}
}
},
"Type": {
"target": "com.amazonaws.licensemanager#ReportTypeList",
"traits": {
"smithy.api#documentation":
" Type of reports to generate. The following report types are supported: \n \n \n
License configuration report - Reports the number and details of consumed licenses for a license
configuration. \n \n \n Resource report - Reports the tracked licenses and
resource consumption for a license configuration. \n \n ",
"smithy.api#required": {}
}
},
"ReportContext": {
"target": "com.amazonaws.licensemanager#ReportContext",
"traits": {
"smithy.api#documentation": " The report context. ",
"smithy.api#required": {}
}
},
"ReportFrequency": {
"target": "com.amazonaws.licensemanager#ReportFrequency",
"traits":
{
"smithy.api#documentation": " Frequency by which reports are generated. ",
"smithy.api#required": {}
}
},
"ClientToken": {
"target": "com.amazonaws.licensemanager#ClientRequestToken",
"traits": {
"smithy.api#documentation": " Unique, case-sensitive identifier that you provide to ensure the
idempotency of the request. ",
"smithy.api#required": {}
}
},
"Description": {
"target": "com.amazonaws.licensemanager#String",
"traits": {

```
                "smithy.api#documentation": "<p>Description of the report generator.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#input": {}
          }
        },
        "com.amazonaws.licensemanager#UpdateLicenseManagerReportGeneratorResponse":
{
          "type": "structure",
          "members": {},
          "traits": {
            "smithy.api#output": {}
          }
        },
        "com.amazonaws.licensemanager#UpdateLicenseSpecificationsForResource": {
          "type": "operation",
          "input": {
            "target": "com.amazonaws.licensemanager#UpdateLicenseSpecificationsForResourceRequest"
          },
          "output": {
            "target": "com.amazonaws.licensemanager#UpdateLicenseSpecificationsForResourceResponse"
          },
          "errors": [
            {
              "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
              "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
              "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },

            {
              "target": "com.amazonaws.licensemanager#InvalidResourceStateException"
            },
            {
              "target": "com.amazonaws.licensemanager#LicenseUsageException"
            },
            {
              "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
              "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
          ],
```

```
        "traits": {
            "smithy.api#documentation": "<p>Adds or removes the specified license configurations for the specified
Amazon Web Services resource.</p>\n          <p>You can update the license specifications of AMIs, instances, and
hosts.\n          You cannot update the license specifications for launch templates and CloudFormation templates, \n
 as they send license configurations to the operation that creates the resource.</p>"
        }
    },

    "com.amazonaws.licensemanager#UpdateLicenseSpecificationsForResourceRequest": {
        "type": "structure",
        "members": {
            "ResourceArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the Amazon Web Services
resource.</p>",
                    "smithy.api#required": {}
                }
            },
            "AddLicenseSpecifications": {
                "target": "com.amazonaws.licensemanager#LicenseSpecifications",
                "traits": {
                    "smithy.api#documentation": "<p>ARNs of the license configurations to add.</p>"
                }
            },
            "RemoveLicenseSpecifications": {
                "target": "com.amazonaws.licensemanager#LicenseSpecifications",
                "traits": {
                    "smithy.api#documentation":
 "<p>ARNs of the license configurations to remove.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#UpdateLicenseSpecificationsForResourceResponse": {
        "type": "structure",
        "members": {},
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#UpdateServiceSettings": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#UpdateServiceSettingsRequest"
```

```
        },
        "output": {
            "target": "com.amazonaws.licensemanager#UpdateServiceSettingsResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
             },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Updates License Manager settings for the current Region.</p>"
        }
    },
    "com.amazonaws.licensemanager#UpdateServiceSettingsRequest": {
        "type": "structure",
        "members": {
            "S3BucketArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the Amazon S3 bucket where
the License
 Manager information is stored.</p>"
                }
            },
            "SnsTopicArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the Amazon SNS topic used
for License Manager alerts.</p>"
                }
            },
            "OrganizationConfiguration": {
                "target": "com.amazonaws.licensemanager#OrganizationConfiguration",
                "traits": {
                    "smithy.api#documentation": "<p>Enables integration with Organizations for cross-account
discovery.</p>"
```

```
                }
            },
            "EnableCrossAccountsDiscovery": {
                "target": "com.amazonaws.licensemanager#BoxBoolean",
                "traits": {
                    "smithy.api#documentation": "<p>Activates cross-account discovery.</p>"

        }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#UpdateServiceSettingsResponse": {
        "type": "structure",
        "members": {},
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#UsageOperation": {
        "type": "string",
        "traits": {
            "smithy.api#length": {
                "min": 0,
                "max": 50
            }
        }
    },
    "com.amazonaws.licensemanager#ValidationException": {
        "type": "structure",
        "members": {
            "Message": {
                "target": "com.amazonaws.licensemanager#Message"
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>The provided input is not valid. Try your request again.</p>",

     "smithy.api#error": "client",
            "smithy.api#httpError": 400
        }
    }
  }
}
// Code generated by smithy-go-codegen DO NOT EDIT.
```

```
package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Deletes the specified license.
func (c *Client) DeleteLicense(ctx context.Context, params *DeleteLicenseInput, optFns ...func(*Options))
(*DeleteLicenseOutput, error) {
 if params == nil {
  params = &DeleteLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "DeleteLicense", params, optFns,
c.addOperationDeleteLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*DeleteLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type DeleteLicenseInput struct {

 // Amazon Resource Name (ARN) of the license.
 //
 // This member is required.
 LicenseArn *string

 // Current version of the license.
 //
 // This member is required.
 SourceVersion
 *string

 noSmithyDocumentSerde
}

type DeleteLicenseOutput struct {

 // Date when the license is deleted.
```

```
 DeletionDate *string

 // License status.
 Status types.LicenseDeletionStatus

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationDeleteLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpDeleteLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpDeleteLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "DeleteLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err !=
nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
```

```
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addOpDeleteLicenseValidationMiddleware(stack);
 err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opDeleteLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opDeleteLicense(region string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
```

```
 ServiceID:     ServiceID,
 OperationName: "DeleteLicense",
 }
}
```

1.472 xerces-j 2.7.1

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1.474 distlib 0.3.3

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A. HISTORY OF THE SOFTWARE
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Python was created in the early 1990s by Guido van Rossum at Stichting
Mathematisch Centrum (CWI, see http://www.cwi.nl) in the Netherlands
as a successor of a language called ABC. Guido remains Python's
principal author, although it includes many contributions from others.

In 1995, Guido continued his work on Python at the Corporation for
National Research Initiatives (CNRI, see http://www.cnri.reston.va.us)
in Reston, Virginia where he released several versions of the
software.

In May 2000, Guido and the Python core development team moved to
BeOpen.com to form the BeOpen PythonLabs team. In October of the same
year, the PythonLabs team moved to Digital Creations (now Zope
Corporation, see http://www.zope.com). In 2001, the Python Software
Foundation (PSF, see http://www.python.org/psf/) was formed, a
non-profit organization created specifically to own Python-related
Intellectual Property. Zope Corporation is a sponsoring member
of
the PSF.

All Python releases are Open Source (see http://www.opensource.org for
the Open Source Definition). Historically, most, but not all, Python

releases have also been GPL-compatible; the table below summarizes the various releases.

Release	Derived from	Year	Owner	GPL-compatible? (1)
0.9.0 thru 1.2		1991-1995	CWI	yes
1.3 thru 1.5.2	1.2	1995-1999	CNRI	yes
1.6	1.5.2	2000	CNRI	no
2.0	1.6	2000	BeOpen.com	no
1.6.1	1.6	2001	CNRI	yes (2)
2.1	2.0+1.6.1	2001	PSF	no
2.0.1	2.0+1.6.1	2001	PSF	yes
2.1.1	2.1+2.0.1	2001	PSF	yes
2.2	2.1.1	2001	PSF	yes
2.1.2	2.1.1	2002	PSF	yes
2.1.3	2.1.2	2002	PSF	yes
2.2.1	2.2	2002	PSF	yes
2.2.2	2.2.1	2002	PSF	yes
2.2.3	2.2.2	2003	PSF	yes
2.3	2.2.2	2002-2003	PSF	yes
2.3.1	2.3	2002-2003	PSF	yes
2.3.2	2.3.1	2002-2003	PSF	yes
2.3.3	2.3.2	2002-2003	PSF	yes
2.3.4	2.3.3	2004	PSF	yes
2.3.5	2.3.4	2005	PSF	yes
2.4	2.3	2004	PSF	yes
2.4.1	2.4	2005	PSF	yes
2.4.2	2.4.1	2005	PSF	yes
2.4.3	2.4.2	2006	PSF	yes
2.4.4	2.4.3	2006	PSF	yes
2.5	2.4	2006	PSF	yes
2.5.1	2.5	2007	PSF	yes
2.5.2	2.5.1	2008	PSF	yes
2.5.3	2.5.2	2008	PSF	yes
2.6	2.5	2008	PSF	yes
2.6.1	2.6	2008	PSF	yes
2.6.2	2.6.1	2009	PSF	yes
2.6.3	2.6.2	2009	PSF	yes
2.6.4	2.6.3	2009	PSF	yes
2.6.5	2.6.4	2010	PSF	yes
3.0	2.6	2008	PSF	yes
3.0.1	3.0	2009	PSF	yes
3.1	3.0.1	2009	PSF	yes
3.1.1	3.1	2009	PSF	yes
3.1.2	3.1	2010	PSF	yes
3.2	3.1	2010	PSF	yes

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(2) According to Richard Stallman, 1.6.1 is not GPL-compatible,
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1.475 uwsgi 2.0.14

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Adapted from a C++ implementation of Chris Doty-Humphrey's SFC PRNG.

https://gist.github.com/imneme/f1f7821f07cf76504a97f6537c818083

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Original algorithm for the implementation of rk_interval function from
Richard J. Wagner's implementation of the Mersenne Twister RNG, optimised by
Magnus Jonsson.

Constants used in the rk_double implementation by Isaku Wada.

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This file contains a list of people who've made non-trivial
contribution to the Google C++ Testing Framework project. People
who commit code to the project are encouraged to add their names
here. Please keep the list sorted by first names.

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1.481 python-setuptools 2.2

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1.482 pep517 0.12.0

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1.483 python-certifi 2024.8.30

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ca-bundle.crt -- Bundle of CA Root Certificates

This is a bundle of X.509 certificates of public Certificate Authorities
(CA). These were automatically extracted from Mozilla's root certificates
file (certdata.txt). This file can be found in the mozilla source tree:
https://hg.mozilla.org/mozilla-central/file/tip/security/nss/lib/ckfw/builtins/certdata.txt
It contains the certificates in PEM format and therefore
can be directly used with curl / libcurl / php_curl, or with
an Apache+mod_ssl webserver for SSL client authentication.
Just configure this file as the SSLCACertificateFile.#

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1.484 pluggy 0.6.0

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1.485 python-certifi 2024.08.30

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This package contains a modified version of ca-bundle.crt:

ca-bundle.crt -- Bundle of CA Root Certificates

This is a bundle of X.509 certificates of public Certificate Authorities
(CA). These were automatically extracted from Mozilla's root certificates
file (certdata.txt). This file can be found in the mozilla source tree:
https://hg.mozilla.org/mozilla-central/file/tip/security/nss/lib/ckfw/builtins/certdata.txt
It contains the certificates in PEM format and therefore
can be directly used with curl / libcurl / php_curl, or with
an Apache+mod_ssl webserver for SSL client authentication.
Just configure this file as the SSLCACertificateFile.#

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1.486 smithy-go 1.20.3

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1.487 distlib 0.3.6

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A. HISTORY OF THE SOFTWARE
==========

Python was created in the early 1990s by Guido van Rossum at Stichting Mathematisch Centrum (CWI, see http://www.cwi.nl) in the Netherlands as a successor of a language called ABC. Guido remains Python's principal author, although it includes many contributions from others.

In 1995, Guido continued his work on Python at the Corporation for National Research Initiatives (CNRI, see http://www.cnri.reston.va.us) in Reston, Virginia where he released several versions of the software.

In May 2000, Guido and the Python core development team moved to BeOpen.com to form the BeOpen PythonLabs team. In October of the same

year, the PythonLabs team moved to Digital Creations (now Zope Corporation, see http://www.zope.com). In 2001, the Python Software Foundation (PSF, see http://www.python.org/psf/) was formed, a non-profit organization created specifically to own Python-related Intellectual Property. Zope Corporation is a sponsoring member of the PSF.

All Python releases are Open Source (see http://www.opensource.org for the Open Source Definition). Historically, most, but not all, Python releases have also been GPL-compatible; the table below summarizes the various releases.

Release	Derived from	Year	Owner	GPL-compatible? (1)
0.9.0 thru 1.2		1991-1995	CWI	yes
1.3 thru 1.5.2	1.2	1995-1999	CNRI	yes
1.6	1.5.2	2000	CNRI	no
2.0	1.6	2000	BeOpen.com	no
1.6.1	1.6	2001	CNRI	yes (2)
2.1	2.0+1.6.1	2001	PSF	no
2.0.1	2.0+1.6.1	2001	PSF	yes
2.1.1	2.1+2.0.1	2001	PSF	yes
2.2	2.1.1	2001	PSF	yes
2.1.2	2.1.1	2002	PSF	yes
2.1.3	2.1.2	2002	PSF	yes
2.2.1	2.2	2002	PSF	yes
2.2.2	2.2.1	2002	PSF	yes
2.2.3	2.2.2	2003	PSF	yes
2.3	2.2.2	2002-2003	PSF	yes
2.3.1	2.3	2002-2003	PSF	yes
2.3.2	2.3.1	2002-2003	PSF	yes
2.3.3	2.3.2	2002-2003	PSF	yes
2.3.4	2.3.3	2004	PSF	yes
2.3.5	2.3.4	2005	PSF	yes
2.4	2.3	2004	PSF	yes
2.4.1	2.4	2005	PSF	yes
2.4.2	2.4.1	2005	PSF	yes
2.4.3	2.4.2	2006	PSF	yes
2.4.4	2.4.3	2006	PSF	yes
2.5	2.4	2006	PSF	yes
2.5.1	2.5	2007	PSF	yes
2.5.2	2.5.1	2008	PSF	yes
2.5.3	2.5.2	2008	PSF	yes
2.6	2.5	2008	PSF	yes
2.6.1	2.6	2008	PSF	yes

2.6.2	2.6.1	2009	PSF	yes
2.6.3	2.6.2	2009	PSF	yes
2.6.4	2.6.3	2009	PSF	yes
2.6.5	2.6.4	2010	PSF	yes
3.0	2.6	2008	PSF	yes
3.0.1	3.0	2009	PSF	yes
3.1	3.0.1	2009	PSF	yes
3.1.1	3.1	2009	PSF	yes
3.1.2	3.1	2010	PSF	yes
3.2	3.1	2010	PSF	yes

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(1) GPL-compatible doesn't mean that we're distributing Python under the GPL. All Python licenses, unlike the GPL, let you distribute a modified version without making your changes open source. The GPL-compatible licenses make it possible to combine Python with other software that is released under the GPL; the others don't.

(2) According to Richard Stallman, 1.6.1 is not GPL-compatible, because its license has a choice of law clause. According to CNRI, however, Stallman's lawyer has told CNRI's lawyer that 1.6.1 is "not incompatible" with the GPL.

Thanks to the many outside volunteers who have worked under Guido's direction to make these releases possible.

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distlib has started off using some of the code from distutil2.

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1.493 kubernetes-api 0.26.2

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```
<project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http://maven.apache.org/maven-v4_0_0.xsd">
  <modelVersion>4.0.0</modelVersion>
  <groupId>org.snmp4j</groupId>
  <artifactId>snmp4j</artifactId>
  <packaging>jar</packaging>
  <version>2.8.18</version>
  <properties>
    <project.build.sourceEncoding>UTF-8</project.build.sourceEncoding>
    <project.build.resourceEncoding>UTF-8</project.build.resourceEncoding>
    <maven.compiler.source>8</maven.compiler.source>
    <maven.compiler.target>8</maven.compiler.target>
    <maven.compiler.release>8</maven.compiler.release>
  </properties>
  <name>SNMP4J</name>
  <description>SNMP API for Java</description>
  <url>https://www.snmp4j.org</url>
  <developers>
    <developer>
      <name>Frank Fock</name>

 <email>fock@agentpp.com</email>
      <organization>AGENTPP</organization>
      <organizationUrl>https://agentpp.com</organizationUrl>
    </developer>
  </developers>
  <scm>
 <url>scm:git:git@snmp.app:snmp4j.git</url>
    <developerConnection>scm:git:git@snmp.app:snmp4j.git</developerConnection>
  </scm>
  <licenses>
    <license>
      <name>Apache 2</name>
      <url>http://www.apache.org/licenses/LICENSE-2.0.txt</url>
      <distribution>repo</distribution>
    </license>
  </licenses>
  <organization>
    <name>SNMP4J.org</name>
    <url>https://www.snmp4j.org</url>
  </organization>
  <profiles>
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  <id>default</id>
  <distributionManagement>
    <downloadUrl>https://snmp.app/dist</downloadUrl>
    <repository>
      <uniqueVersion>false</uniqueVersion>
      <id>oosnmpRepo</id>
      <name>snmp.app Repository</name>
       <url>dav:https://snmp.app/dist/release</url>
      <layout>default</layout>
    </repository>
    <snapshotRepository>
      <uniqueVersion>false</uniqueVersion>
      <id>oosnmpRepo</id>
      <name>snmp.app Snapshots</name>
      <url>dav:https://snmp.app/dist/snapshot</url>
      <layout>default</layout>
    </snapshotRepository>
  </distributionManagement>
  <build>
    <plugins>
      <plugin>
        <artifactId>maven-assembly-plugin</artifactId>
        <version>3.4.2</version>
        <configuration>
          <descriptors>
            <descriptor>assembly.xml</descriptor>
          </descriptors>
        </configuration>
        <executions>

       <execution>
              <id>make-assembly</id>
              <phase>package</phase>
              <goals>
                 <goal>single</goal>
              </goals>
          </execution>
        </executions>
      </plugin>
    </plugins>
  </build>
</profile>
<profile>
  <id>ossrh</id>
  <distributionManagement>
    <snapshotRepository>
      <id>ossrh</id>
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            <url>https://oss.sonatype.org/content/repositories/snapshots</url>
        </snapshotRepository>
        <repository>
            <id>ossrh</id>
            <url>https://oss.sonatype.org/service/local/staging/deploy/maven2/</url>
        </repository>
    </distributionManagement>
    <build>
        <plugins>
            <plugin>
                <groupId>org.apache.maven.plugins</groupId>
                <artifactId>maven-gpg-plugin</artifactId>
                <version>1.6</version>
                <executions>
                    <execution>
                        <id>sign-artifacts</id>
                        <phase>verify</phase>
                        <goals>
                            <goal>sign</goal>
                        </goals>
                    </execution>
                </executions>
                <configuration>
                    <keyname>${gpg.keyname}</keyname>
                    <passphraseServerId>${gpg.keyname}</passphraseServerId>
                    <gpgArguments>
                        <arg>--pinentry-mode</arg>
                        <arg>loopback</arg>
                    </gpgArguments>
                </configuration>
            </plugin>
            <plugin>
                <groupId>org.sonatype.plugins</groupId>
                <artifactId>nexus-staging-maven-plugin</artifactId>
                <version>1.6.13</version>
                <extensions>true</extensions>
                <configuration>
                    <serverId>ossrh</serverId>
                    <nexusUrl>https://oss.sonatype.org/</nexusUrl>
                    <autoReleaseAfterClose>true</autoReleaseAfterClose>
                </configuration>
            </plugin>
        </plugins>
    </build>
  </profile>
</profiles>
<dependencies>
  <dependency>
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      <groupId>junit</groupId>
      <artifactId>junit</artifactId>
      <version>4.13.1</version>
      <scope>test</scope>
    </dependency>
</dependencies>
<build>
    <outputDirectory>classes</outputDirectory>
     <extensions>
      <extension>
        <groupId>org.apache.maven.wagon</groupId>
        <artifactId>wagon-webdav-jackrabbit</artifactId>
        <version>3.5.1</version>
      </extension>
    </extensions>
    <plugins>
      <plugin>
        <groupId>org.apache.maven.plugins</groupId>
        <artifactId>maven-help-plugin</artifactId>
        <version>3.3.0</version>
      </plugin>
      <plugin>
        <groupId>org.apache.maven.plugins</groupId>
        <artifactId>maven-jar-plugin</artifactId>
        <version>3.3.0</version>
        <configuration>
          <excludes>
            <exclude>classes-test/**</exclude>
          </excludes>
        </configuration>
      </plugin>
      <plugin>
        <groupId>org.apache.maven.plugins</groupId>

    <artifactId>maven-source-plugin</artifactId>
        <version>3.2.1</version>
        <configuration>
          <excludes>
            <exclude>src/test/*</exclude>
          </excludes>
        </configuration>
        <executions>
          <execution>
            <id>attach-sources</id>
            <phase>verify</phase>
            <goals>
              <goal>jar-no-fork</goal>
            </goals>
```

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            </execution>
          </executions>
        </plugin>
        <plugin>
          <groupId>org.apache.maven.plugins</groupId>
          <artifactId>maven-javadoc-plugin</artifactId>
          <version>3.4.1</version>
          <executions>
            <execution>
              <id>attach-javadocs</id>
              <goals>
                <goal>jar</goal>
              </goals>
            </execution>
          </executions>
          <configuration>
            <stylesheet>java</stylesheet>
            <stylesheetfile>${basedir}/src/main/javadoc/stylesheet.css</stylesheetfile>
            <doctitle>${project.name} ${project.version}</doctitle>
            <footer>Copyright 2005-2023 Frank Fock (SNMP4J.org)</footer>
            <windowtitle>${project.name} ${project.version}</windowtitle>
            <excludePackageNames>org.snmp4j.test:org.snmp4j.test.tools.console</excludePackageNames>
            <show>protected</show>
            <version />
            <author />
            <encoding>UTF-8</encoding>
          </configuration>
        </plugin>
        <plugin>
          <artifactId>maven-compiler-plugin</artifactId>
          <version>3.10.1</version>
          <configuration>

        <source>8</source>
            <target>8</target>
            <release>8</release>
            <encoding>UTF-8</encoding>
          </configuration>
        </plugin>
      </plugins>
    </build>
</project>
```

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```
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```

```
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 _##  SNMP4J - ResponseEvent.java
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 _##  SNMP4J - TimerFactory.java
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 _##  SNMP4J - WorkerTask.java
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 _##  SNMP4J - PrivacyProtocol.java
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 _##  SNMP4J - TransportMappings.java
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 _##  SNMP4J - UnsupportedAddressClassException.java
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* /snmp4j-2-8-18-sources-jar/org/snmp4j/mp/package.html
* /snmp4j-2-8-18-sources-jar/org/snmp4j/security/package.html
* /snmp4j-2-8-18-sources-jar/org/snmp4j/event/package.html
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 _##  SNMP4J - LogProxy.java
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 _##  SNMP4J - MPv3.java
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 _##  SNMP4J - AssignableFromByteArray.java
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 _##  SNMP4J - SecurityProtocols.java
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 _##  SNMP4J - AuthHMAC192SHA256.java
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1.498 x-sync 0.7.0

1.498.1 Available under license :

---
name: github.com/cloudflare/circl/internal/conv
version: v1.3.7
type: go
summary:
homepage: https://pkg.go.dev/github.com/cloudflare/circl/internal/conv
license: other
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name: github.com/go-git/go-git/v5/config
version: v5.12.0
type: go
summary: Package config contains the abstraction of multiple config files
homepage: https://pkg.go.dev/github.com/go-git/go-git/v5/config
license: apache-2.0
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---
name: github.com/go-git/gcfg/token
version: v1.5.1-0.20230307220236-3a3c6141e376
type: go
summary: Package token defines constants representing the lexical tokens of the gcfg
configuration syntax and basic operations on tokens (printing, predicates).
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name: github.com/cloudflare/circl/sign/ed25519
version: v1.3.7
type: go
summary: Package ed25519 implements Ed25519 signature scheme as described in RFC-8032.
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name: github.com/ProtonMail/go-crypto/ocb
version: v1.0.0
type: go
summary: 'Package ocb provides an implementation of the OCB (offset codebook) mode
of operation, as described in RFC-7253 of the IRTF and in Rogaway, Bellare, Black
and Krovetz - OCB: A BLOCK-CIPHER MODE OF OPERATION FOR EFFICIENT AUTHENTICATED
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name: golang.org/x/crypto/ssh/knownhosts
version: v0.21.0
type: go
summary: Package knownhosts implements a parser for the OpenSSH known_hosts host key
 database, and provides utility functions for writing OpenSSH compliant known_hosts
 files.
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---
name: github.com/emirpasic/gods/lists
version: v1.18.1
type: go
summary: Package lists provides an abstract List interface.
homepage: https://pkg.go.dev/github.com/emirpasic/gods/lists
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name: github.com/ProtonMail/go-crypto/openpgp/ecdh
version: v1.0.0
type: go
summary: Package ecdh implements ECDH encryption, suitable for OpenPGP, as specified
 in RFC 6637, section 8.
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name: golang.org/x/crypto/openpgp/elgamal
```

version: v0.21.0
type: go
summary: Package elgamal implements ElGamal encryption, suitable for OpenPGP, as specified
 in "A Public-Key Cryptosystem and a Signature Scheme Based on Discrete Logarithms,"
 IEEE Transactions on Information Theory, v.
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name: github.com/go-git/go-git/v5/plumbing/format/index
version: v5.12.0
type: go
summary: Package index implements encoding and decoding of index format files.
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---
name: github.com/ProtonMail/go-crypto/openpgp/errors
version: v1.0.0
type: go
summary: Package errors contains common error types for the OpenPGP packages.
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version: v5.12.0
type: go
summary:
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version: v5.12.0
type: go
summary: Package pktline implements reading payloads form pkt-lines and encoding pkt-lines
 from payloads.
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version: v5.12.0
type: go
summary: Package idxfile implements encoding and decoding of packfile idx files.
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notices: []
---
name: github.com/go-git/go-git/v5/plumbing/format/objfile
version: v5.12.0
type: go
summary: Package objfile implements encoding and decoding of object files.
homepage: https://pkg.go.dev/github.com/go-git/go-git/v5/plumbing/format/objfile
license: apache-2.0
licenses:
- sources: v5/LICENSE
 text: |2

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version: v5.5.0
type: go
summary:
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package github

import (
 "context"
 "fmt"
)

// LicensesService handles communication with the license related
// methods of the GitHub API.
//
// GitHub API docs: https://docs.github.com/en/free-pro-team@latest/rest/reference/licenses/
type LicensesService service

// RepositoryLicense represents the license for a repository.
type RepositoryLicense struct {
 Name *string `json:"name,omitempty"`
 Path *string `json:"path,omitempty"`

 SHA         *string  `json:"sha,omitempty"`
 Size        *int     `json:"size,omitempty"`
 URL         *string  `json:"url,omitempty"`
 HTMLURL     *string  `json:"html_url,omitempty"`
 GitURL      *string  `json:"git_url,omitempty"`
 DownloadURL *string  `json:"download_url,omitempty"`
 Type        *string  `json:"type,omitempty"`
 Content     *string  `json:"content,omitempty"`
 Encoding
   *string  `json:"encoding,omitempty"`
 License     *License `json:"license,omitempty"`
}

func (l RepositoryLicense) String() string {
 return Stringify(l)
}
```

```
// License represents an open source license.
type License struct {
 Key  *string `json:"key,omitempty"`
 Name *string `json:"name,omitempty"`
 URL  *string `json:"url,omitempty"`

 SPDXID        *string   `json:"spdx_id,omitempty"`
 HTMLURL       *string   `json:"html_url,omitempty"`
 Featured      *bool     `json:"featured,omitempty"`
 Description   *string   `json:"description,omitempty"`
 Implementation *string  `json:"implementation,omitempty"`
 Permissions   *[]string `json:"permissions,omitempty"`
 Conditions    *[]string `json:"conditions,omitempty"`
 Limitations   *[]string `json:"limitations,omitempty"`
 Body          *string   `json:"body,omitempty"`
}

func (l License) String() string {
 return Stringify(l)
}

// List popular open source licenses.
//
// GitHub API docs: https://docs.github.com/en/free-pro-team@latest/rest/reference/licenses/#list-all-licenses
func
 (s *LicensesService) List(ctx context.Context) ([]*License, *Response, error) {
 req, err := s.client.NewRequest("GET", "licenses", nil)
 if err != nil {
  return nil, nil, err
 }

 var licenses []*License
 resp, err := s.client.Do(ctx, req, &licenses)
 if err != nil {
  return nil, resp, err
 }

 return licenses, resp, nil
}

// Get extended metadata for one license.
//
// GitHub API docs: https://docs.github.com/en/free-pro-team@latest/rest/reference/licenses/#get-a-license
func (s *LicensesService) Get(ctx context.Context, licenseName string) (*License, *Response, error) {
 u := fmt.Sprintf("licenses/%s", licenseName)

 req, err := s.client.NewRequest("GET", u, nil)
 if err != nil {
```

```
 return nil, nil, err
}

license := new(License)
resp, err := s.client.Do(ctx, req, license)
if err != nil {
 return nil, resp, err
}

return license, resp, nil
}
---
name: github.com/go-git/go-git/v5/plumbing/cache
version: v5.12.0
type: go
summary:
homepage: https://pkg.go.dev/github.com/go-git/go-git/v5/plumbing/cache
license: apache-2.0
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name: github.com/ProtonMail/go-crypto/openpgp/aes/keywrap
version: v1.0.0
type: go
summary: Package keywrap is an implementation of the RFC 3394 AES key wrapping algorithm.

homepage: https://pkg.go.dev/github.com/ProtonMail/go-crypto/openpgp/aes/keywrap
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name: github.com/cloudflare/circl/dh/x25519
version: v1.3.7
type: go
summary: Package x25519 provides Diffie-Hellman functions as specified in RFC-7748.
homepage: https://pkg.go.dev/github.com/cloudflare/circl/dh/x25519
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name: github.com/cloudflare/circl/sign
version: v1.3.7
type: go
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name: github.com/ProtonMail/go-crypto/openpgp/elgamal
version: v1.0.0
type: go
summary: Package elgamal implements ElGamal encryption, suitable for OpenPGP, as specified
in "A Public-Key Cryptosystem and a Signature Scheme Based on Discrete Logarithms,"
IEEE Transactions on Information Theory, v.
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name: github.com/go-git/go-git/v5/plumbing/protocol/packp/sideband
version: v5.12.0
type: go
summary: Package sideband implements a sideband mutiplex/demultiplexer
homepage: https://pkg.go.dev/github.com/go-git/go-git/v5/plumbing/protocol/packp/sideband
license: apache-2.0
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---
name: github.com/go-git/go-git/v5/plumbing/revlist
version: v5.12.0
type: go
summary: Package revlist provides support to access the ancestors of commits, in a
similar way as the git-rev-list command.
homepage: https://pkg.go.dev/github.com/go-git/go-git/v5/plumbing/revlist
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name: github.com/go-git/go-git/v5/plumbing/transport/file
version: v5.12.0
type: go
summary: Package file implements the file transport protocol.
homepage: https://pkg.go.dev/github.com/go-git/go-git/v5/plumbing/transport/file
license: apache-2.0
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name: github.com/go-git/go-git/v5/utils/diff
version: v5.12.0
type: go
summary: Package diff implements line oriented diffs, similar to the ancient Unix
diff command.
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notices: []
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name: github.com/go-git/go-git/v5/plumbing/transport/client
version: v5.12.0
type: go
summary: Package client contains helper function to deal with the different client
protocols.
homepage: https://pkg.go.dev/github.com/go-git/go-git/v5/plumbing/transport/client
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version: v1.0.0
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---
name: golang.org/x/oauth2/internal

version: v0.19.0
type: go
summary: Package internal contains support packages for oauth2 package.
homepage: https://pkg.go.dev/golang.org/x/oauth2/internal
license: bsd-3-clause
licenses:
- sources: oauth2/LICENSE
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notices: []
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name: github.com/ProtonMail/go-crypto/openpgp/eddsa
version: v1.0.0
type: go
summary: Package eddsa implements EdDSA signature, suitable for OpenPGP, as specified
 in https://datatracker.ietf.org/doc/html/draft-ietf-openpgp-crypto-refresh-06#section-13.7
homepage: https://pkg.go.dev/github.com/ProtonMail/go-crypto/openpgp/eddsa
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name: github.com/ProtonMail/go-crypto/openpgp/internal/ecc
version: v1.0.0
type: go
summary: Package ecc implements a generic interface for ECDH, ECDSA, and EdDSA.
homepage: https://pkg.go.dev/github.com/ProtonMail/go-crypto/openpgp/internal/ecc
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name: github.com/go-git/go-git/v5/storage/filesystem
version: v5.12.0
type: go
summary: Package filesystem is a storage backend base on filesystems
homepage: https://pkg.go.dev/github.com/go-git/go-git/v5/storage/filesystem
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name: github.com/go-git/go-git/v5/plumbing/format/config
version: v5.12.0
type: go
summary: Package config implements encoding and decoding of git config files.
homepage: https://pkg.go.dev/github.com/go-git/go-git/v5/plumbing/format/config
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name: github.com/go-git/go-git/v5/utils/binary
version: v5.12.0
type: go
summary: Package binary implements syntax-sugar functions on top of the standard library
binary package
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name: golang.org/x/crypto/openpgp/packet
version: v0.21.0
type: go
summary: Package packet implements parsing and serialization of OpenPGP packets, as
 specified in RFC 4880.
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name: github.com/ProtonMail/go-crypto/openpgp/internal/encoding
version: v1.0.0
type: go
summary: Package encoding implements openpgp packet field encodings as specified in
RFC 4880 and 6637.
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name: github.com/emirpasic/gods/trees
version: v1.18.1
type: go
summary: Package trees provides an abstract Tree interface.
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name: github.com/emirpasic/gods/containers
version: v1.18.1
type: go
summary: Package containers provides core interfaces and functions for data structures.
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---
name: golang.org/x/crypto/ssh/agent
version: v0.21.0
type: go
summary: Package agent implements the ssh-agent protocol, and provides both a client
 and a server.
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name: github.com/go-git/go-git/v5/plumbing/transport/internal/common
version: v5.12.0
type: go
summary: Package common implements the git pack protocol with a pluggable transport.
homepage: https://pkg.go.dev/github.com/go-git/go-git/v5/plumbing/transport/internal/common
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notices: []
---
name: github.com/cloudflare/circl/sign/ed448
version: v1.3.7
type: go
summary: Package ed448 implements Ed448 signature scheme as described in RFC-8032.
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version: v5.12.0
type: go
summary: Package merkletrie provides support for n-ary trees that are at the same
 time Merkle trees and Radix trees (tries).
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notices: []
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name: golang.org/x/sys/execabs
version: v0.18.0
type: go
summary: Package execabs is a drop-in replacement for os/exec that requires PATH lookups
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version: v0.23.0
type: go
summary: Package context defines the Context type, which carries deadlines, cancelation
signals, and other request-scoped values across API boundaries and between processes.
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---
name: golang.org/x/crypto/openpgp/s2k
version: v0.21.0
type: go
summary: Package s2k implements the various OpenPGP string-to-key transforms as specified
 in RFC 4800 section 3.7.1.
homepage: https://pkg.go.dev/golang.org/x/crypto/openpgp/s2k
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---
name: github.com/go-git/gcfg/scanner
version: v1.5.1-0.20230307220236-3a3c6141e376
type: go

summary: Package scanner implements a scanner for gcfg configuration text.
homepage: https://pkg.go.dev/github.com/go-git/gcfg/scanner
license: other
licenses:
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 text: |
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name: github.com/golang/groupcache/lru
version: v0.0.0-20210331224755-41bb18bfe9da
type: go
summary: Package lru implements an LRU cache.
homepage: https://pkg.go.dev/github.com/golang/groupcache/lru
license: apache-2.0
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name: github.com/go-git/go-git/v5/plumbing/storer
version: v5.12.0
type: go
summary: Package storer defines the interfaces to store objects, references, etc.
homepage: https://pkg.go.dev/github.com/go-git/go-git/v5/plumbing/storer
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---
name: dario.cat/mergo
version: v1.0.0
type: go
summary: A helper to merge structs and maps in Golang.
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version: v5.12.0
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---
name: github.com/cloudflare/circl/internal/sha3
version: v1.3.7
type: go
summary: Package sha3 implements the SHA-3 fixed-output-length hash functions and
the SHAKE variable-output-length hash functions defined by FIPS-202.
homepage: https://pkg.go.dev/github.com/cloudflare/circl/internal/sha3
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---
name: github.com/go-git/go-billy/v5/util

version: v5.5.0
type: go
summary:
homepage: https://pkg.go.dev/github.com/go-git/go-billy/v5/util
license: apache-2.0
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name: github.com/go-git/gcfg/types
version: v1.5.1-0.20230307220236-3a3c6141e376
type: go
summary: Package types defines helpers for type conversions.
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name: golang.org/x/crypto/argon2
version: v0.21.0
type: go
summary: Package argon2 implements the key derivation function Argon2.
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notices: []
---
name: github.com/pjbgf/sha1cd/ubc
version: v0.3.0
type: go
summary: ubc package provides ways for SHA1 blocks to be checked for Unavoidable Bit
Conditions that arise from crypto analysis attacks.
homepage: https://pkg.go.dev/github.com/pjbgf/sha1cd/ubc

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---
name: golang.org/x/crypto/blake2b
version: v0.21.0
type: go
summary: Package blake2b implements the BLAKE2b hash algorithm defined by RFC 7693
and the extendable output function (XOF) BLAKE2Xb.
homepage: https://pkg.go.dev/golang.org/x/crypto/blake2b
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name: golang.org/x/sys/unix
version: v0.18.0
type: go
summary: Package unix contains an interface to the low-level operating system primitives.
homepage: https://pkg.go.dev/golang.org/x/sys/unix
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Stas Maksimov <maksimov@gmail.com>
Tor Arvid Lund <torarvid@gmail.com>
Zac Bergquist <zbergquist99@gmail.com>
---
name: github.com/ProtonMail/go-crypto/eax
version: v1.0.0
type: go

summary: 'Package eax provides an implementation of the EAX (encrypt-authenticate-translate)
 mode of operation, as described in Bellare, Rogaway, and Wagner "THE EAX MODE OF
 OPERATION: A TWO-PASS AUTHENTICATED-ENCRYPTION SCHEME OPTIMIZED FOR SIMPLICITY
AND
 EFFICIENCY." In FSE''04, volume 3017 of LNCS, 2004'
homepage: https://pkg.go.dev/github.com/ProtonMail/go-crypto/eax
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---
name: github.com/emirpasic/gods/utils
version: v1.18.1
type: go
summary: Package utils provides common utility functions.
homepage: https://pkg.go.dev/github.com/emirpasic/gods/utils
license: other
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notices: []
---
name: github.com/go-git/go-git/v5/plumbing/hash
version: v5.12.0
type: go
summary: package hash provides a way for managing the underlying hash implementations
 used across go-git.
homepage: https://pkg.go.dev/github.com/go-git/go-git/v5/plumbing/hash
license: apache-2.0
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name: gopkg.in/warnings.v0
version: v0.1.2
type: go
summary: Package warnings implements error handling with non-fatal errors (warnings).
homepage: https://pkg.go.dev/gopkg.in/warnings.v0
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name: github.com/google/go-querystring/query
version: v1.1.0
type: go
summary: Package query implements encoding of structs into URL query parameters.
homepage: https://pkg.go.dev/github.com/google/go-querystring/query

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version: v0.9.1
type: go
summary: Package errors provides simple error handling primitives.
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name: golang.org/x/oauth2
version: v0.19.0
type: go
summary: Package oauth2 provides support for making OAuth2 authorized and authenticated
 HTTP requests, as specified in RFC 6749.
homepage: https://pkg.go.dev/golang.org/x/oauth2
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name: golang.org/x/crypto/openpgp/errors
version: v0.21.0
type: go
summary: Package errors contains common error types for the OpenPGP packages.
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version: v1.3.7
type: go
summary: Package fp448 provides prime field arithmetic over GF(2^448-2^224-1).
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version: v0.23.0
type: go
summary: Package socks provides a SOCKS version 5 client implementation.
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version: v5.12.0
type: go
summary: Package noder provide an interface for defining nodes in a merkletrie, their
hashes and their paths (a noders and its ancestors).
homepage: https://pkg.go.dev/github.com/go-git/go-git/v5/utils/merkletrie/noder
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name: github.com/jbenet/go-context/io
version: v0.0.0-20150711004518-d14ea06fba99
type: go
summary: Package ctxio provides io.Reader and io.Writer wrappers that respect context.Contexts.
homepage: https://pkg.go.dev/github.com/jbenet/go-context/io
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name: github.com/go-git/go-git/v5/plumbing/object
version: v5.12.0
type: go
summary: Package object contains implementations of all Git objects and utility functions
 to work with them.
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version: v0.21.0
type: go
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name: github.com/ProtonMail/go-crypto/openpgp
version: v1.0.0
type: go
summary: Package openpgp implements high level operations on OpenPGP messages.
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name: golang.org/x/crypto/curve25519
version: v0.21.0
type: go
summary: Package curve25519 provides an implementation of the X25519 function, which
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name: github.com/ProtonMail/go-crypto/openpgp/s2k
version: v1.0.0
type: go
summary: Package s2k implements the various OpenPGP string-to-key transforms as specified
 in RFC 4800 section 3.7.1, and Argon2 specified in draft-ietf-openpgp-crypto-refresh-08
 section 3.7.1.4.
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name: github.com/ProtonMail/go-crypto/brainpool
version: v1.0.0
type: go
summary: Package brainpool implements Brainpool elliptic curves.
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name: github.com/go-git/go-git/v5/plumbing/protocol/packp
version: v5.12.0
type: go
summary:

homepage: https://pkg.go.dev/github.com/go-git/go-git/v5/plumbing/protocol/packp
license: apache-2.0
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---
name: github.com/go-git/go-git/v5/plumbing
version: v5.12.0
type: go
summary: package plumbing implement the core interfaces and structs used by go-git
homepage: https://pkg.go.dev/github.com/go-git/go-git/v5/plumbing
license: apache-2.0
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name: golang.org/x/crypto/openpgp/armor
version: v0.21.0
type: go
summary: Package armor implements OpenPGP ASCII Armor, see RFC 4880.
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---
name: github.com/kevinburke/ssh_config
version: v1.2.0
type: go
summary: Package ssh_config provides tools for manipulating SSH config files.
homepage: https://pkg.go.dev/github.com/kevinburke/ssh_config
license: other
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- sources: LICENSE
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Wayne Ashley Berry <wayneashleyberry@gmail.com>
santosh653 <70637961+santosh653@users.noreply.github.com>
---
name: golang.org/x/crypto/cast5
version: v0.21.0
type: go
summary: Package cast5 implements CAST5, as defined in RFC 2144.
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version: v1.0.0
type: go
summary: Package packet implements parsing and serialization of OpenPGP packets, as
specified in RFC 4880.
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version: v1.3.7
type: go
summary: Package x448 provides Diffie-Hellman functions as specified in RFC-7748.
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version: v0.3.0
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name: golang.org/x/net/proxy

version: v0.23.0
type: go
summary: Package proxy provides support for a variety of protocols to proxy network
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name: github.com/cloudflare/circl/math
version: v1.3.7
type: go
summary: Package math provides some utility functions for big integers.
homepage: https://pkg.go.dev/github.com/cloudflare/circl/math
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name: github.com/skeema/knownhosts
version: v1.2.2
type: go
summary: Package knownhosts is a thin wrapper around golang.org/x/crypto/ssh/knownhosts, adding the ability to obtain the list of host key algorithms for a known host.
homepage: https://pkg.go.dev/github.com/skeema/knownhosts
license: apache-2.0
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name: github.com/emirpasic/gods/trees/binaryheap
version: v1.18.1
type: go
summary: Package binaryheap implements a binary heap backed by array list.
homepage: https://pkg.go.dev/github.com/emirpasic/gods/trees/binaryheap
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name: github.com/go-git/gcfg
version: v1.5.1-0.20230307220236-3a3c6141e376
type: go
summary: Package gcfg reads "INI-style" text-based configuration files with "name=value"
pairs grouped into sections (gcfg files).
homepage: https://pkg.go.dev/github.com/go-git/gcfg
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---

name: github.com/pjbgf/sha1cd

version: v0.3.0

type: go

summary: Package sha1cd implements collision detection based on the whitepaper Counter-cryptanalysis from Marc Stevens.

homepage: https://pkg.go.dev/github.com/pjbgf/sha1cd

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version: v5.12.0
type: go
summary: Package packfile implements encoding and decoding of packfile format.
homepage: https://pkg.go.dev/github.com/go-git/go-git/v5/plumbing/format/packfile
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version: v5.12.0
type: go
summary: Package server implements the git server protocol.
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version: v0.21.0
type: go
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version: v1.18.1
type: go
summary: Package arraylist implements the array list.
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---
name: golang.org/x/crypto/sha3
version: v0.21.0
type: go

summary: Package sha3 implements the SHA-3 fixed-output-length hash functions and
 the SHAKE variable-output-length hash functions defined by FIPS-202.
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name: github.com/cyphar/filepath-securejoin
version: v0.2.4
type: go
summary: Package securejoin is an implementation of the hopefully-soon-to-be-included
SecureJoin helper that is meant to be part of the "path/filepath" package.
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version: v5.12.0
type: go
summary: Package capability defines the server and client capabilities.
homepage: https://pkg.go.dev/github.com/go-git/go-git/v5/plumbing/protocol/packp/capability
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version: v1.3.7
type: go
summary: Package goldilocks provides elliptic curve operations over the goldilocks
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version: v5.12.0
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name: github.com/spf13/pflag
version: v1.0.5
type: go
summary: Package pflag is a drop-in replacement for Go's flag package, implementing
POSIX/GNU-style --flags.
homepage: https://pkg.go.dev/github.com/spf13/pflag
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version: v5.12.0
type: go
summary: Package git implements the git transport protocol.
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version: v5.12.0
type: go
summary: Package gitignore implements matching file system paths to gitignore patterns
that can be automatically read from a git repository tree in the order of definition
priorities.
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name: github.com/sergi/go-diff/diffmatchpatch
version: v1.3.2-0.20230802210424-5b0b94c5c0d3
type: go
summary: Package diffmatchpatch offers robust algorithms to perform the operations
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A. HISTORY OF THE SOFTWARE
==========================

Python was created in the early 1990s by Guido van Rossum at Stichting
Mathematisch Centrum (CWI, see http://www.cwi.nl) in the Netherlands
as a successor of a language called ABC. Guido remains Python's
principal author, although it includes many contributions from others.

In 1995, Guido continued his work on Python at the Corporation for
National Research Initiatives (CNRI, see http://www.cnri.reston.va.us)
in Reston, Virginia where he released several versions of the
software.

In May 2000, Guido and the Python core development team moved to
BeOpen.com to form the BeOpen PythonLabs team. In October of the same
year, the PythonLabs team moved to Digital Creations (now Zope

Corporation, see http://www.zope.com). In 2001, the Python Software Foundation (PSF, see http://www.python.org/psf/) was formed, a non-profit organization created specifically to own Python-related Intellectual Property. Zope Corporation is a sponsoring member of the PSF.

All Python releases are Open Source (see http://www.opensource.org for the Open Source Definition). Historically, most, but not all, Python releases have also been GPL-compatible; the table below summarizes the various releases.

Release	Derived from	Year	Owner	GPL-compatible? (1)
0.9.0 thru 1.2		1991-1995	CWI	yes
1.3 thru 1.5.2	1.2	1995-1999	CNRI	yes
1.6	1.5.2	2000	CNRI	no
2.0	1.6	2000	BeOpen.com	no
1.6.1	1.6	2001	CNRI	yes (2)
2.1	2.0+1.6.1	2001	PSF	no
2.0.1	2.0+1.6.1	2001	PSF	yes
2.1.1	2.1+2.0.1	2001	PSF	yes
2.2	2.1.1	2001	PSF	yes
2.1.2	2.1.1	2002	PSF	yes
2.1.3	2.1.2	2002	PSF	yes
2.2.1	2.2	2002	PSF	yes
2.2.2	2.2.1	2002	PSF	yes
2.2.3	2.2.2	2003	PSF	yes
2.3	2.2.2	2002-2003	PSF	yes
2.3.1	2.3	2002-2003	PSF	yes
2.3.2	2.3.1	2002-2003	PSF	yes
2.3.3	2.3.2	2002-2003	PSF	yes
2.3.4	2.3.3	2004	PSF	yes
2.3.5	2.3.4	2005	PSF	yes
2.4	2.3	2004	PSF	yes
2.4.1	2.4	2005	PSF	yes
2.4.2	2.4.1	2005	PSF	yes
2.4.3	2.4.2	2006	PSF	yes
2.4.4	2.4.3	2006	PSF	yes
2.5	2.4	2006	PSF	yes
2.5.1	2.5	2007	PSF	yes
2.5.2	2.5.1	2008	PSF	yes
2.5.3	2.5.2	2008	PSF	yes
2.6	2.5	2008	PSF	yes
2.6.1	2.6	2008	PSF	yes
2.6.2	2.6.1	2009	PSF	yes

2.6.3	2.6.2	2009	PSF	yes
2.6.4	2.6.3	2009	PSF	yes
2.6.5	2.6.4	2010	PSF	yes
3.0	2.6	2008	PSF	yes
3.0.1	3.0	2009	PSF	yes
3.1	3.0.1	2009	PSF	yes
3.1.1	3.1	2009	PSF	yes
3.1.2	3.1	2010	PSF	yes
3.2	3.1	2010	PSF	yes

Footnotes:

(1) GPL-compatible doesn't mean that we're distributing Python under the GPL. All Python licenses, unlike the GPL, let you distribute a modified version without making your changes open source. The GPL-compatible licenses make it possible to combine Python with other software that is released under the GPL; the others don't.

(2) According to Richard Stallman, 1.6.1 is not GPL-compatible, because its license has a choice of law clause. According to CNRI, however, Stallman's lawyer has told CNRI's lawyer that 1.6.1 is "not incompatible" with the GPL.

Thanks to the many outside volunteers who have worked under Guido's direction to make these releases possible.

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==========
Distutils2 Contributors
==========

The Distutils2 project was started by Tarek Ziad and is currently
maintained by ric Araujo. Many people have contributed to the project.

distlib has started off using some of the code from distutil2.

If you're making a patch, please add your name below in alphabetical order,
and welcome into the Fellowship of the Packaging!

Thanks to:

- Rajiv Abraham
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Metadata-Version: 1.0
Name: setuptools
Version: 0.6c9
Summary: Download, build, install, upgrade, and uninstall Python packages -- easily!
Home-page: http://pypi.python.org/pypi/setuptools
Author: Phillip J. Eby
Author-email: distutils-sig@python.org
License: PSF or ZPL
Description: ==========
Installing and Using Setuptools
==========

.. contents:: **Table of Contents**

Installation Instructions

Windows
=======

Install setuptools using the provided ``.exe`` installer. If you've previously
installed older versions of setuptools, please delete all ``setuptools*.egg``
and ``setuptools.pth`` files from your system's ``site-packages`` directory
(and any other ``sys.path`` directories) FIRST.

If you are upgrading a previous version of setuptools that was installed using
an ``.exe``
installer, please be sure to also *uninstall that older version*
via your system's "Add/Remove Programs" feature, BEFORE installing the newer
version.

Once installation is complete, you will find an ``easy_install.exe`` program in
your Python ``Scripts`` subdirectory. Be sure to add this directory to your
``PATH`` environment variable, if you haven't already done so.

RPM-Based Systems
==========

Install setuptools using the provided source RPM. The included ``.spec`` file
assumes you are installing using the default ``python`` executable, and is not
specific to a particular Python version. The ``easy_install`` executable will
be installed to a system ``bin`` directory such as ``/usr/bin``.

If you wish to install to a location other than the default Python
installation's default ``site-packages`` directory (and ``$prefix/bin`` for
scripts), please use the ``.egg``-based
installation approach described in the
following section.

Cygwin, Mac OS X, Linux, Other
==========

1. Download the appropriate egg for your version of Python (e.g.
``setuptools-0.6c9-py2.4.egg``). Do NOT rename it.

2. Run it as if it were a shell script, e.g. ``sh setuptools-0.6c9-py2.4.egg``.
Setuptools will install itself using the matching version of Python (e.g.
``python2.4``), and will place the ``easy_install`` executable in the
default location for installing Python scripts (as determined by the
standard distutils configuration files, or by the Python installation).

If you want to install setuptools to somewhere other than ``site-packages`` or
your default distutils installation locations for libraries and scripts, you
may include EasyInstall command-line options such as ``--prefix``,
``--install-dir``, and so on, following the ``.egg``
filename on the same
command line. For example::

sh setuptools-0.6c9-py2.4.egg --prefix=~

You can use ``--help`` to get a full options list, but we recommend consulting
the `EasyInstall manual`_ for detailed instructions, especially `the section
on custom installation locations`_.

.. _EasyInstall manual: http://peak.telecommunity.com/DevCenter/EasyInstall
.. _the section on custom installation locations: http://peak.telecommunity.com/DevCenter/EasyInstall#custom-installation-locations

Cygwin Note

If you are trying to install setuptools for the **Windows** version of Python
(as opposed to the Cygwin version that lives in ``/usr/bin``), you must make
sure that an appropriate executable (``python2.3``, ``python2.4``, or
``python2.5``) is on your **Cygwin** ``PATH`` when invoking the egg. For
example, doing the following at a Cygwin bash prompt will install
setuptools
for the **Windows** Python found at ``C:\\Python24``::

ln -s /cygdrive/c/Python24/python.exe python2.4
PATH=.:$PATH sh setuptools-0.6c9-py2.4.egg
rm python2.4

Downloads
=========

All setuptools downloads can be found at `the project's home page in the Python
Package Index`_. Scroll to the very bottom of the page to find the links.

.. _the project's home page in the Python Package Index: http://pypi.python.org/pypi/setuptools

In addition to the PyPI downloads, the development version of ``setuptools``
is available from the `Python SVN sandbox`_, and in-development versions of the
`0.6 branch`_ are available as well.

.. _0.6 branch: http://svn.python.org/projects/sandbox/branches/setuptools-0.6/#egg=setuptools-dev06

.. _Python SVN sandbox: http://svn.python.org/projects/sandbox/trunk/setuptools/#egg=setuptools-dev

---
Using Setuptools and EasyInstall

Here are some of the available manuals, tutorials, and other resources for
learning about Setuptools, Python Eggs, and EasyInstall:

* `The EasyInstall user's guide and reference manual`_
* `The setuptools Developer's Guide`_
* `The pkg_resources API reference`_
* `Package Compatibility Notes`_ (user-maintained)
* `The Internal Structure of Python Eggs`_

Questions, comments, and bug reports should be directed to the `distutils-sig
mailing list`_. If you have written (or know of) any tutorials, documentation,
plug-ins, or other resources for setuptools users, please let us know about
them there, so this reference list can be updated. If you have working,
tested patches to correct problems or add features, you may submit them to
the `setuptools bug tracker`_.

.. _setuptools bug tracker: http://bugs.python.org/setuptools/
.. _Package Compatibility Notes: http://peak.telecommunity.com/DevCenter/PackageNotes
.. _The Internal Structure of Python Eggs: http://peak.telecommunity.com/DevCenter/EggFormats
.. _The setuptools Developer's Guide: http://peak.telecommunity.com/DevCenter/setuptools
.. _The pkg_resources API reference: http://peak.telecommunity.com/DevCenter/PkgResources
.. _The EasyInstall user's guide and reference manual: http://peak.telecommunity.com/DevCenter/EasyInstall
.. _distutils-sig mailing list: http://mail.python.org/pipermail/distutils-sig/

Credits
----

* The original design for the ``.egg`` format and the ``pkg_resources`` API was
co-created by Phillip Eby and Bob Ippolito. Bob also implemented the first
version of ``pkg_resources``, and supplied the OS X operating system version
compatibility algorithm.

* Ian Bicking implemented
many early "creature comfort" features of
easy_install, including support for downloading via Sourceforge and
Subversion repositories. Ian's comments on the Web-SIG about WSGI
application deployment also inspired the concept of "entry points" in eggs,
and he has given talks at PyCon and elsewhere to inform and educate the
community about eggs and setuptools.

* Jim Fulton contributed time and effort to build automated tests of various
aspects of ``easy_install``, and supplied the doctests for the command-line
``.exe`` wrappers on Windows.

* Phillip J. Eby is the principal author and maintainer of setuptools, and
first proposed the idea of an importable binary distribution format for
Python application plug-ins.

* Significant parts of the implementation of setuptools were funded by the Open
Source Applications Foundation, to provide a plug-in infrastructure for the
Chandler
PIM application. In addition, many OSAF staffers (such as Mike
"Code Bear" Taylor) contributed their time and stress as guinea pigs for the
use of eggs and setuptools, even before eggs were "cool". (Thanks, guys!)

Keywords: CPAN PyPI distutils eggs package management
Platform: UNKNOWN
Classifier: Development Status :: 3 - Alpha
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1.505 multierr 1.11.0

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1.506 colorama 0.4.6

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1.507 python-requests 2.2.1

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Requests includes some vendorized python libraries to ease installation.

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1.508 gojsonpointer 0.0.0-20190905194746-02993c407bfb

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1.509 jsonpatch 5.9.0+incompatible

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1.510 keypoint-pngencoder 0.7.2

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That's all there is to it!

1.511 cachecontrol 0.12.10

1.511.1 Available under license :

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Metadata-Version: 2.1
Name: CacheControl
Version: 0.12.10
Summary: httplib2 caching for requests
Home-page: https://github.com/ionrock/cachecontrol
Author: Eric Larson
Author-email: eric@ionrock.org
License: UNKNOWN
Description: ..
SPDX-FileCopyrightText: SPDX-FileCopyrightText: 2015 Eric Larson

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==============
CacheControl
==============

.. image:: https://img.shields.io/pypi/v/cachecontrol.svg
:target: https://pypi.python.org/pypi/cachecontrol
:alt: Latest Version

.. image:: https://travis-ci.org/ionrock/cachecontrol.png?branch=master
:target: https://travis-ci.org/ionrock/cachecontrol

CacheControl is a port of the caching algorithms in httplib2_ for use with
requests_ session object.

It was written because httplib2's
better support for caching is often
mitigated by its lack of thread safety. The same is true of requests in
terms of caching.

Quickstart
==========

.. code-block:: python

import requests

from cachecontrol import CacheControl

sess = requests.session()
cached_sess = CacheControl(sess)

response = cached_sess.get('http://google.com')

If the URL contains any caching based headers, it will cache the
result in a simple dictionary.

For more info, check out the docs_

.. _docs: http://cachecontrol.readthedocs.org/en/latest/
.. _httplib2: https://github.com/httplib2/httplib2
.. _requests: http://docs.python-requests.org/

Keywords: requests http caching web
Platform: UNKNOWN
Classifier: Development Status :: 4 - Beta
Classifier: Environment :: Web
Environment
Classifier: License :: OSI Approved :: Apache Software License
Classifier: Operating System :: OS Independent
Classifier: Programming Language :: Python :: 3.6
Classifier: Programming Language :: Python :: 3.7
Classifier: Programming Language :: Python :: 3.8
Classifier: Programming Language :: Python :: 3.9

Classifier: Programming Language :: Python :: 3.10
Classifier: Topic :: Internet :: WWW/HTTP
Requires-Python: >=3.6
Provides-Extra: redis
Provides-Extra: filecache

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* /cachecontrol-0-12-10-1-tar-gz/CacheControl-0.12.10/CacheControl.egg-info/PKG-INFO
* /cachecontrol-0-12-10-1-tar-gz/CacheControl-0.12.10/PKG-INFO

1.512 grpcio-tools 1.14.1

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/* "grpc_tools/_protoc_compiler.pyx":1
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* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpc/support/sync_custom.h
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* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpc/load_reporting.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/impl/channel_argument_option.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpc/impl/codegen/fork.h
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* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_tools/_protoc_compiler.pyx
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_version.py
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/protoc_lib_deps.py
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_tools/command.py
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1.14.1/third_party/protobuf/src/google/protobuf/stubs/atomicops_internals_arm_qnx.h
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* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpc++/impl/sync_no_cxx11.h
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* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpc++/channel.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpc++/ext/proto_server_reflection_plugin.h
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* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpc++/support/channel_arguments.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpc++/support/error_details.h
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1.14.1/third_party/protobuf/src/google/protobuf/io/gzip_stream_unittest.sh
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-
1.14.1/third_party/protobuf/src/google/protobuf/compiler/zip_output_unittest.sh
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* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-
1.14.1/third_party/protobuf/src/google/protobuf/compiler/objectivec/objectivec_file.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-
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 /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-
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* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/third_party/protobuf/src/google/protobuf/util/package_info.h
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* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-
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/grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/third_party/protobuf/src/google/protobuf/util/internal/json_objectwriter_test.cc
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* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/third_party/protobuf/src/google/protobuf/repeated_field_unittest.cc
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/third_party/protobuf/src/google/protobuf/compiler/cpp/cpp_extension.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/third_party/protobuf/src/google/protobuf/package_info.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/third_party/protobuf/src/google/protobuf/type.proto
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/third_party/protobuf/src/google/protobuf/stubs/time_test.cc
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/third_party/protobuf/src/google/protobuf/unittest_custom_options.proto
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/third_party/protobuf/src/google/protobuf/compiler/csharp/csharp_source_generator_base.h
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/grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/third_party/protobuf/src/google/protobuf/lite_arena_unittest.cc
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_tools/_proto/google/protobuf/source_context.proto
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/third_party/protobuf/src/google/protobuf/compiler/java/java_helpers.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/third_party/protobuf/src/google/protobuf/compiler/java/java_enum_lite.cc
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/third_party/protobuf/src/google/protobuf/util/internal/testdata/proto3.proto

* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/third_party/protobuf/src/google/protobuf/compiler/plugin.cc
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-
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* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/third_party/protobuf/src/google/protobuf/compiler/java/java_enum_field.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/third_party/protobuf/src/google/protobuf/compiler/cpp/cpp_enum_field.cc
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/third_party/protobuf/src/google/protobuf/util/internal/testdata/books.proto
*
/grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/third_party/protobuf/src/google/protobuf/compiler/zip_writer.cc
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/third_party/protobuf/src/google/protobuf/util/type_resolver_util.cc

* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/third_party/protobuf/src/google/protobuf/compiler/objectivec/objectivec_oneof.cc
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/third_party/protobuf/src/google/protobuf/compiler/java/java_map_field.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/third_party/protobuf/src/google/protobuf/util/field_comparator_test.cc
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/third_party/protobuf/src/google/protobuf/arenastring_unittest.cc
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/third_party/protobuf/src/google/protobuf/generated_message_table_driven.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/third_party/protobuf/src/google/protobuf/io/tokenizer.cc
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/grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/third_party/protobuf/src/google/protobuf/compiler/csharp/csharp_repeated_enum_field.cc
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/third_party/protobuf/src/google/protobuf/map_unittest.proto
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/third_party/protobuf/src/google/protobuf/stubs/statusor.cc
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/third_party/protobuf/src/google/protobuf/stubs/stl_util.h
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* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/third_party/protobuf/src/google/protobuf/map_type_handler.h
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* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/third_party/protobuf/src/google/protobuf/arena_test_util.h
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* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpc/impl/codegen/port_platform.h
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* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/impl/rpc_method.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpc/support/cpu.h
*
/grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpc/support/atm_gcc_atomic.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/impl/codegen/config_protobuf.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpc/slice_buffer.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/src/compiler/csharp_generator.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/src/compiler/python_generator_helpers.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/src/compiler/cpp_generator.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpc/impl/codegen/sync_generic.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpc/support/atm.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/impl/codegen/security/auth_context.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/impl/codegen/sync_stream.h

*
/grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/src/compiler/csharp_plugin.cc
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpc/support/alloc.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpc/impl/codegen/log.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/impl/codegen/service_type.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-
1.14.1/grpc_root/include/grpcpp/impl/codegen/core_codegen_interface.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/support/channel_arguments.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/src/compiler/objective_c_generator_helpers.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/server_context.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/impl/codegen/rpc_method.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/impl/sync_no_cxx11.h
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/grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpc/support/time.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/impl/codegen/call.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpc/slice.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/src/compiler/cpp_generator_helpers.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/support/sync_stream.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/support/async_stream.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpc/byte_buffer.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/src/compiler/generator_helpers.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/src/compiler/ruby_generator_string-inl.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/impl/codegen/proto_utils.h
*
/grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpc/impl/codegen/byte_buffer_reader.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/support/string_ref.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpc/support/sync_generic.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/create_channel.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/support/async_unary_call.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/src/compiler/protobuf_plugin.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpc/impl/codegen/slice.h
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* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/impl/codegen/metadata_map.h
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/grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpc/support/sync_windows.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/client_context.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/src/compiler/python_generator.cc
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpc/impl/codegen/atm_gcc_atomic.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/support/byte_buffer.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/security/server_credentials.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/impl/codegen/client_unary_call.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpc/grpc_security.h
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/grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/src/compiler/node_plugin.cc
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/channel.h

* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/impl/codegen/create_auth_context.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/impl/codegen/slice.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/ext/proto_server_reflection_plugin.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/src/compiler/ruby_generator.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpc/support/sync_posix.h
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* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/src/compiler/csharp_generator_helpers.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/impl/serialization_traits.h
*
/grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/src/compiler/objective_c_generator.cc
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/impl/client_unary_call.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpc/impl/codegen/atm_windows.h
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* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/src/compiler/cpp_plugin.cc
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/support/config.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/impl/codegen/method_handler_impl.h
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/grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpc/support/sync.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpc/impl/codegen/status.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpc/support/log_windows.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/src/compiler/ruby_generator_map-inl.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/impl/service_type.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/src/compiler/ruby_plugin.cc
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/src/compiler/cpp_generator.cc
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/src/compiler/ruby_generator_helpers-inl.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/support/slice.h
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/grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpc/impl/codegen/sync_posix.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/impl/call.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/completion_queue.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/grpcpp.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/support/status_code_enum.h
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* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/impl/codegen/async_stream.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/impl/codegen/proto_buffer_reader.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpc/support/string_util.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpc/impl/codegen/atm.h
*
/grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/src/compiler/python_generator.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/alarm.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpc/support/atm_gcc_sync.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/impl/sync_cxx11.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpc/support/log.h

* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/src/compiler/csharp_generator.cc
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/impl/method_handler_impl.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/src/compiler/python_plugin.cc
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/impl/codegen/serialization_traits.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/support/stub_options.h
*
/grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpc/support/atm_windows.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/impl/server_builder_option.h
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* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/generic/generic_stub.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/impl/codegen/time.h
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/grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/src/compiler/schema_interface.h
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* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/impl/codegen/completion_queue_tag.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/impl/codegen/server_context.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/impl/codegen/async_unary_call.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpc/byte_buffer_reader.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/impl/codegen/call_hook.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/impl/codegen/string_ref.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpc/impl/codegen/atm_gcc_sync.h
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1.14.1/third_party/protobuf/src/google/protobuf/compiler/javanano/javanano_params.h
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* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpc/census.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/impl/codegen/completion_queue.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpc/grpc.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/server_builder.h
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*
*/
/// If set, grpc is free to use the HTTP GET verb for sending the request,
```

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* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/impl/codegen/client_context.h
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* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/third_party/protobuf/src/google/protobuf/compiler/objectivec/objectivec_map_field.h
*
 /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/third_party/protobuf/src/google/protobuf/stubs/atomicops_internals_ppc_gcc.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/third_party/protobuf/src/google/protobuf/compiler/objectivec/objectivec_map_field.cc
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* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/impl/codegen/rpc_service_method.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/impl/codegen/core_codegen.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/impl/codegen/status_code_enum.h
*
 /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpc/impl/codegen/propagation_bits.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpc/impl/codegen/compression_types.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/src/compiler/node_generator.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpc/grpc_cronet.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/src/compiler/node_generator.cc

* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/health_check_service_interface.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/impl/server_builder_plugin.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/src/compiler/php_generator_helpers.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpc/impl/codegen/connectivity_state.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/src/compiler/php_generator.h
*
/grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/src/compiler/php_plugin.cc
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/impl/rpc_service_method.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpc/impl/codegen/gpr_types.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpc/impl/codegen/sync.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpc/grpc_posix.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpc/impl/codegen/gpr_slice.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/server_posix.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/impl/server_initializer.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/resource_quota.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/impl/codegen/status.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpc/grpc_security_constants.h
*
/grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/test/server_context_test_spouse.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/create_channel_posix.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-
1.14.1/grpc_root/include/grpcpp/ext/health_check_service_server_builder_option.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/src/compiler/php_generator.cc
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/src/compiler/node_generator_helpers.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/impl/codegen/config.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/impl/codegen/grpc_library.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpcpp/impl/codegen/channel_interface.h
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Found in path(s):
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-
1.14.1/third_party/protobuf/src/google/protobuf/stubs/atomicops_internals_solaris.h
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Found in path(s):
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_tools/main.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_tools/main.cc
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_tools/protobuf_generated_well_known_types_embed.cc
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Found in path(s):
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/third_party/protobuf/src/google/protobuf/stubs/mathlimits.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/third_party/protobuf/src/google/protobuf/stubs/mathlimits.cc
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Found in path(s):
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-
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Found in path(s):
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-
1.14.1/third_party/protobuf/src/google/protobuf/stubs/structurally_valid.cc
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* limitations under the License.
*
*/
/** Signal that the call is cacheable. GRPC is free to use GET verb */

Found in path(s):
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpc_root/include/grpc/impl/codegen/grpc_types.h
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Found in path(s):
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/third_party/protobuf/src/google/protobuf/testing/zcgzip.cc
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/third_party/protobuf/src/google/protobuf/testing/zcgunzip.cc
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Metadata-Version: 1.1
Name: grpcio-tools
Version: 1.14.1
Summary: Protobuf code generator for gRPC
Home-page: https://grpc.io
Author: The gRPC Authors
Author-email: grpc-io@googlegroups.com
License: Apache License 2.0
Description: UNKNOWN
Platform: UNKNOWN
Classifier: Development Status :: 5 - Production/Stable
Classifier: Programming Language :: Python
Classifier: Programming Language :: Python :: 2
Classifier: Programming Language :: Python :: 2.7
Classifier: Programming Language :: Python :: 3
Classifier: Programming Language :: Python :: 3.4
Classifier: Programming Language :: Python :: 3.5

Classifier: Programming Language :: Python :: 3.6
Classifier: License :: OSI Approved :: Apache Software License

Found in path(s):
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/PKG-INFO
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/grpcio_tools.egg-info/PKG-INFO
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Found in path(s):
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1.14.1/third_party/protobuf/src/google/protobuf/stubs/template_util_unittest.cc
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-
1.14.1/third_party/protobuf/src/google/protobuf/stubs/type_traits_unittest.cc
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/third_party/protobuf/src/google/protobuf/stubs/mutex.h
*
 /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/third_party/protobuf/src/google/protobuf/stubs/template_util.h
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/third_party/protobuf/src/google/protobuf/stubs/type_traits.h
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* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/third_party/protobuf/src/google/protobuf/stubs/atomicops_internals_power.h
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Found in path(s):
* /grpcio-tools-1-14-1-1-tar-gz/grpcio-tools-1.14.1/third_party/protobuf/src/google/protobuf/stubs/atomicops_internals_generic_gcc.h

1.513 aws-sdk-go-v2-internal-endpoints 2.6.15

1.513.1 Available under license :

```
name: License Scan

on: [pull_request]

jobs:
 licensescan:
   name: License Scan
   runs-on: ubuntu-latest
   strategy:
     matrix:
       python-version: [3.9]

   steps:
```

```
    - name: Checkout target
      uses: actions/checkout@v2
      with:
        path: sdkbase
        ref: ${{ github.base_ref }}
    - name: Checkout this ref
      uses: actions/checkout@v2
      with:
        path: new-ref
        fetch-depth: 0
    - name: Get Diff
      run: git --git-dir ./new-ref/.git diff --name-only --diff-filter=ACMRT ${{ github.event.pull_request.base.sha }}
${{ github.sha }} > refDiffFiles.txt
    - name: Get Target Files
      run: git --git-dir ./sdkbase/.git ls-files | grep -xf refDiffFiles.txt - > targetFiles.txt
    - name: Checkout scancode
      uses: actions/checkout@v2
      with:
        repository: nexB/scancode-toolkit
        path: scancode-toolkit
        fetch-depth: 1
    - name: Set up Python ${{ matrix.python-version }}
       uses: actions/setup-python@v2
      with:
        python-version: ${{ matrix.python-version }}
    # ScanCode
    - name: Self-configure scancode
      working-directory: ./scancode-toolkit
      run: ./scancode --help
    - name: Run Scan code on target
      run: cat targetFiles.txt | while read filename; do echo ./sdkbase/$filename; done | xargs ./scancode-
toolkit/scancode -l -n 30 --json-pp - | grep short_name | sort | uniq >> old-licenses.txt
    - name: Run Scan code on pr ref
      run: cat refDiffFiles.txt | while read filename; do echo ./new-ref/$filename; done | xargs ./scancode-
toolkit/scancode -l -n 30 --json-pp - | grep short_name | sort | uniq >> new-licenses.txt
    # compare
    - name: License test
      run: if ! cmp old-licenses.txt new-licenses.txt; then echo "Licenses differ! Failing."; exit -1; else echo "Licenses
are the same. Success."; exit 0; fi
CreateLicense
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
  OperationInputValidation
 Serialize stack step
  setOperationInput
  ResolveEndpoint
```

OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
UserAgent
AddTimeOffsetMiddleware
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
AddTimeOffsetMiddleware
RecordResponseTiming
RequestResponseLogger
ListReceivedLicenses
Initialize stack step
RegisterServiceMetadata
legacyEndpointContextSetter
SetLogger
Serialize stack step
setOperationInput
ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
UserAgent
AddTimeOffsetMiddleware
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash

```
 Retry
 RetryMetricsHeader
 setLegacyContextSigningOptions
 Signing
Deserialize stack step
 AddRawResponseToMetadata
 ErrorCloseResponseBody
 CloseResponseBody
 ResponseErrorWrapper
 RequestIDRetriever
 OperationDeserializer
 AddTimeOffsetMiddleware
 RecordResponseTiming
 RequestResponseLogger
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Checks out the specified license.
//
// If the account that created the license is the same that is performing the
// check out, you must specify the account as the beneficiary.
func (c *Client) CheckoutLicense(ctx context.Context, params *CheckoutLicenseInput, optFns ...func(*Options))
(*CheckoutLicenseOutput, error) {
 if params == nil {
  params = &CheckoutLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "CheckoutLicense", params, optFns,
c.addOperationCheckoutLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*CheckoutLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}
```

```
type CheckoutLicenseInput struct {

 //
 Checkout type.
 //
 // This member is required.
 CheckoutType types.CheckoutType

 // Unique, case-sensitive identifier that you provide to ensure the idempotency of
 // the request.
 //
 // This member is required.
 ClientToken *string

 // License entitlements.
 //
 // This member is required.
 Entitlements []types.EntitlementData

 // Key fingerprint identifying the license.
 //
 // This member is required.
 KeyFingerprint *string

 // Product SKU.
 //
 // This member is required.
 ProductSKU *string

 // License beneficiary.
 Beneficiary *string

 // Node ID.
 NodeId *string

 noSmithyDocumentSerde
}

type CheckoutLicenseOutput struct {

 // Checkout type.
 CheckoutType types.CheckoutType

 // Allowed license entitlements.
 EntitlementsAllowed []types.EntitlementData

 // Date and time at which the license checkout expires.
 Expiration *string
```

```
// Date and time at which the license checkout is issued.
IssuedAt *string

// Amazon Resource Name (ARN) of the checkout license.
LicenseArn
*string

// License consumption token.
LicenseConsumptionToken *string

// Node ID.
NodeId *string

// Signed token.
SignedToken *string

// Metadata pertaining to the operation's result.
ResultMetadata middleware.Metadata

noSmithyDocumentSerde
}

func (c *Client) addOperationCheckoutLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpCheckoutLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpCheckoutLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "CheckoutLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack,
 options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
```

```
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
  return err
 }
 if err = addUserAgentRetryMode(stack,
 options); err != nil {
  return err
 }
 if err = addOpCheckoutLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opCheckoutLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
```

```
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opCheckoutLicense(region string) *awsmiddleware.RegisterServiceMetadata
{
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName: "CheckoutLicense",
 }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Creates a license.
func (c *Client) CreateLicense(ctx context.Context, params *CreateLicenseInput, optFns ...func(*Options))
(*CreateLicenseOutput, error) {
 if params == nil {
  params = &CreateLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "CreateLicense", params, optFns,
c.addOperationCreateLicenseMiddlewares)
 if err != nil {
  return nil, err
 }
```

```
 out := result.(*CreateLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type CreateLicenseInput struct {

 // License beneficiary.
 //
 // This member is required.
 Beneficiary *string

 // Unique, case-sensitive identifier that you provide to ensure the idempotency of
 // the request.
 //
 //
 This member is required.
 ClientToken *string

 // Configuration for consumption of the license. Choose a provisional
 // configuration for workloads running with continuous connectivity. Choose a
 // borrow configuration for workloads with offline usage.
 //
 // This member is required.
 ConsumptionConfiguration *types.ConsumptionConfiguration

 // License entitlements.
 //
 // This member is required.
 Entitlements []types.Entitlement

 // Home Region for the license.
 //
 // This member is required.
 HomeRegion *string

 // License issuer.
 //
 // This member is required.
 Issuer *types.Issuer

 // License name.
 //
 // This member is required.
 LicenseName *string

 // Product name.
```

```
 //
 // This member is required.
 ProductName *string

 // Product SKU.
 //
 // This member is required.
 ProductSKU *string

 // Date and time range during which the license is valid, in ISO8601-UTC format.
 //
 // This member is required.
 Validity *types.DatetimeRange

 // Information about
 the license.
 LicenseMetadata []types.Metadata

 noSmithyDocumentSerde
}

type CreateLicenseOutput struct {

 // Amazon Resource Name (ARN) of the license.
 LicenseArn *string

 // License status.
 Status types.LicenseStatus

 // License version.
 Version *string

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationCreateLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpCreateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpCreateLicense{}, middleware.After)
 if err != nil {
```

```
 return err
}
if err := addProtocolFinalizerMiddlewares(stack, options, "CreateLicense"); err != nil {
 return fmt.Errorf("add protocol finalizers: %v", err)
}

if
err = addlegacyEndpointContextSetter(stack, options); err != nil {
 return err
}
if err = addSetLoggerMiddleware(stack, options); err != nil {
 return err
}
if err = addClientRequestID(stack); err != nil {
 return err
}
if err = addComputeContentLength(stack); err != nil {
 return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
 return err
}
if err = addComputePayloadSHA256(stack); err != nil {
 return err
}
if err = addRetry(stack, options); err != nil {
 return err
}
if err = addRawResponseToMetadata(stack); err != nil {
 return err
}
if err = addRecordResponseTiming(stack); err != nil {
 return err
}
if err = addClientUserAgent(stack, options); err != nil {
 return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
 return
err
}
if err = addTimeOffsetBuild(stack, c); err != nil {
```

```
 return err
 }
 if err = addUserAgentRetryMode(stack, options); err != nil {
 return err
 }
 if err = addOpCreateLicenseValidationMiddleware(stack); err != nil {
 return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opCreateLicense(options.Region),
middleware.Before); err != nil {
 return err
 }
 if err = addRecursionDetection(stack); err != nil {
 return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
 return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
 return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
 return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
 return err
 }
 return nil
}

func newServiceMetadataMiddleware_opCreateLicense(region string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:    ServiceID,
  OperationName:
 "CreateLicense",
 }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package grafana

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/grafana/types"
 "github.com/aws/smithy-go/middleware"
```

```
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Removes the Grafana Enterprise license from a workspace.
func (c *Client) DisassociateLicense(ctx context.Context, params *DisassociateLicenseInput, optFns
...func(*Options)) (*DisassociateLicenseOutput, error) {
 if params == nil {
  params = &DisassociateLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "DisassociateLicense", params, optFns,
c.addOperationDisassociateLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*DisassociateLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type DisassociateLicenseInput struct {

 // The type of license to remove from the workspace.
 //
 // This member is required.
 LicenseType types.LicenseType

 //
 The ID of the workspace to remove the Grafana Enterprise license from.
 //
 // This member is required.
 WorkspaceId *string

 noSmithyDocumentSerde
}

type DisassociateLicenseOutput struct {

 // A structure containing information about the workspace.
 //
 // This member is required.
 Workspace *types.WorkspaceDescription

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
```

```
}

func (c *Client) addOperationDisassociateLicenseMiddlewares(stack *middleware.Stack, options Options) (err
error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsRestjson1_serializeOpDisassociateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsRestjson1_deserializeOpDisassociateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "DisassociateLicense");
 err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
```

```
 return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil
 {
 return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
 return err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
 return err
 }
 if err = addUserAgentRetryMode(stack, options); err != nil {
 return err
 }
 if err = addOpDisassociateLicenseValidationMiddleware(stack); err != nil {
 return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opDisassociateLicense(options.Region),
middleware.Before); err != nil {
 return err
 }
 if err = addRecursionDetection(stack); err != nil {
 return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
 return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
 return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
 return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
 return err
 }
 return nil
}

func newServiceMetadataMiddleware_opDisassociateLicense(region string)
*awsmiddleware.RegisterServiceMetadata
 {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
```

```
 ServiceID:     ServiceID,
 OperationName: "DisassociateLicense",
 }
}
CheckoutLicense
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
  OperationInputValidation
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
 Build stack step
  ClientRequestID
  ComputeContentLength
  UserAgent
  AddTimeOffsetMiddleware
  RecursionDetection
 Finalize stack step
  ResolveAuthScheme
  GetIdentity
  ResolveEndpointV2
  disableHTTPS
  ComputePayloadHash
  Retry
  RetryMetricsHeader
  setLegacyContextSigningOptions
  Signing
 Deserialize stack step
  AddRawResponseToMetadata
  ErrorCloseResponseBody
  CloseResponseBody
  ResponseErrorWrapper
  RequestIDRetriever
  OperationDeserializer
  AddTimeOffsetMiddleware
  RecordResponseTiming
  RequestResponseLogger
DisassociateLicense
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
  OperationInputValidation
 Serialize stack step
  setOperationInput
```

ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
UserAgent
AddTimeOffsetMiddleware
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
AddTimeOffsetMiddleware
RecordResponseTiming
RequestResponseLogger
CheckoutBorrowLicense
Initialize stack step
RegisterServiceMetadata
legacyEndpointContextSetter
SetLogger
OperationInputValidation
Serialize stack step
setOperationInput
ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
UserAgent
AddTimeOffsetMiddleware
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2

```
 disableHTTPS
 ComputePayloadHash
 Retry
 RetryMetricsHeader
 setLegacyContextSigningOptions
 Signing
Deserialize stack step
 AddRawResponseToMetadata
 ErrorCloseResponseBody
 CloseResponseBody
 ResponseErrorWrapper
 RequestIDRetriever
 OperationDeserializer
 AddTimeOffsetMiddleware
 RecordResponseTiming
 RequestResponseLogger
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Lists received licenses.
func (c *Client) ListReceivedLicenses(ctx context.Context, params *ListReceivedLicensesInput, optFns
...func(*Options)) (*ListReceivedLicensesOutput, error) {
 if params == nil {
  params = &ListReceivedLicensesInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "ListReceivedLicenses", params, optFns,
c.addOperationListReceivedLicensesMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*ListReceivedLicensesOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type ListReceivedLicensesInput struct {
```

```
 // Filters to scope the results. The following filters are supported:
 //
 //   - ProductSKU
 //
 //   - Status
 //
 //
   - Fingerprint
 //
 //   - IssuerName
 //
 //   - Beneficiary
 Filters []types.Filter

 // Amazon Resource Names (ARNs) of the licenses.
 LicenseArns []string

 // Maximum number of results to return in a single call.
 MaxResults *int32

 // Token for the next set of results.
 NextToken *string

 noSmithyDocumentSerde
}

type ListReceivedLicensesOutput struct {

 // Received license details.
 Licenses []types.GrantedLicense

 // Token for the next set of results.
 NextToken *string

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationListReceivedLicensesMiddlewares(stack *middleware.Stack, options Options) (err
error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpListReceivedLicenses{}, middleware.After)
 if err != nil {
```

```
 return err
}
err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpListReceivedLicenses{},
middleware.After)
if err != nil {
 return err
}
if err := addProtocolFinalizerMiddlewares(stack, options, "ListReceivedLicenses"); err != nil {
 return fmt.Errorf("add protocol finalizers: %v", err)
}

if err = addlegacyEndpointContextSetter(stack, options); err != nil {
 return err
}
if err = addSetLoggerMiddleware(stack, options); err != nil {
 return err
}
if err = addClientRequestID(stack); err != nil {
 return err
}
if err = addComputeContentLength(stack); err != nil {
 return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
 return err
}
if err = addComputePayloadSHA256(stack); err != nil {
 return err
}
if err = addRetry(stack, options); err != nil {
 return err
}
if err = addRawResponseToMetadata(stack); err != nil {
 return err
}
if err = addRecordResponseTiming(stack); err != nil {
 return err
}
if err = addClientUserAgent(stack, options); err != nil {
 return err
}
if err
= smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
```

```
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
  return err
 }
 if err = addUserAgentRetryMode(stack, options); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opListReceivedLicenses(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opListReceivedLicenses(region
 string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName: "ListReceivedLicenses",
 }
}
AssociateLicense
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
  OperationInputValidation
 Serialize stack step
  setOperationInput
  ResolveEndpoint
```

```
 OperationSerializer
Build stack step
 ClientRequestID
 ComputeContentLength
 UserAgent
 AddTimeOffsetMiddleware
 RecursionDetection
Finalize stack step
 ResolveAuthScheme
 GetIdentity
 ResolveEndpointV2
 disableHTTPS
 ComputePayloadHash
 Retry
 RetryMetricsHeader
 setLegacyContextSigningOptions
 Signing
Deserialize stack step
 AddRawResponseToMetadata
 ErrorCloseResponseBody
 CloseResponseBody
 ResponseErrorWrapper
 RequestIDRetriever
 OperationDeserializer
 AddTimeOffsetMiddleware
 RecordResponseTiming
 RequestResponseLogger
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Gets detailed information about the specified license.
func (c *Client) GetLicense(ctx context.Context, params *GetLicenseInput, optFns ...func(*Options))
(*GetLicenseOutput, error) {
 if params == nil {
  params = &GetLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "GetLicense", params, optFns,
```

```
c.addOperationGetLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*GetLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type GetLicenseInput struct {

 // Amazon Resource Name (ARN) of the license.
 //
 // This member is required.
 LicenseArn *string

 // License version.
 Version *string

 noSmithyDocumentSerde
}

type
 GetLicenseOutput struct {

 // License details.
 License *types.License

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationGetLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpGetLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpGetLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "GetLicense"); err != nil {
```

```
 return fmt.Errorf("add protocol finalizers: %v", err)
}

if err = addlegacyEndpointContextSetter(stack, options); err != nil {
 return err
}
if err = addSetLoggerMiddleware(stack, options); err != nil {
 return err
}
if err = addClientRequestID(stack); err
!= nil {
 return err
}
if err = addComputeContentLength(stack); err != nil {
 return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
 return err
}
if err = addComputePayloadSHA256(stack); err != nil {
 return err
}
if err = addRetry(stack, options); err != nil {
 return err
}
if err = addRawResponseToMetadata(stack); err != nil {
 return err
}
if err = addRecordResponseTiming(stack); err != nil {
 return err
}
if err = addClientUserAgent(stack, options); err != nil {
 return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
 return err
}
if err = addTimeOffsetBuild(stack, c); err != nil {
 return err
}
if err = addUserAgentRetryMode(stack, options); err != nil {
 return err
```

```
 }
 if err = addOpGetLicenseValidationMiddleware(stack);
 err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opGetLicense(options.Region), middleware.Before);
err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opGetLicense(region string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:    ServiceID,
  OperationName: "GetLicense",
 }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package grafana

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/grafana/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Assigns a Grafana Enterprise license to a workspace. To upgrade, you must use
```

```
// ENTERPRISE for the licenseType , and pass in a valid Grafana Labs token for the
// grafanaToken . Upgrading to Grafana Enterprise incurs additional fees. For more
// information, see [Upgrade a workspace to Grafana Enterprise].
//
// [Upgrade a workspace to Grafana Enterprise]: https://docs.aws.amazon.com/grafana/latest/userguide/upgrade-to-Grafana-Enterprise.html
func (c *Client) AssociateLicense(ctx context.Context, params *AssociateLicenseInput, optFns ...func(*Options)) (*AssociateLicenseOutput, error) {
 if params == nil {
  params = &AssociateLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx,
 "AssociateLicense", params, optFns, c.addOperationAssociateLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*AssociateLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type AssociateLicenseInput struct {

 // The type of license to associate with the workspace.
 //
 // Amazon Managed Grafana workspaces no longer support Grafana Enterprise free
 // trials.
 //
 // This member is required.
 LicenseType types.LicenseType

 // The ID of the workspace to associate the license with.
 //
 // This member is required.
 WorkspaceId *string

 // A token from Grafana Labs that ties your Amazon Web Services account with a
 // Grafana Labs account. For more information, see [Link your account with Grafana Labs].
 //
 // [Link your account with Grafana Labs]: https://docs.aws.amazon.com/grafana/latest/userguide/upgrade-to-Grafana-Enterprise.html#AMG-workspace-register-enterprise
 GrafanaToken *string

 noSmithyDocumentSerde
}
```

```
type AssociateLicenseOutput
 struct {

 // A structure containing data about the workspace.
 //
 // This member is required.
 Workspace *types.WorkspaceDescription

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationAssociateLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsRestjson1_serializeOpAssociateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsRestjson1_deserializeOpAssociateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "AssociateLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack,
 options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
```

```
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
  return err
 }
 if err = addUserAgentRetryMode(stack,
options); err != nil {
  return err
 }
 if err = addOpAssociateLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opAssociateLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
```

```
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opAssociateLicense(region string)
*awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName: "AssociateLicense",
 }
}
ListLicenses
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
 Build stack step
  ClientRequestID
  ComputeContentLength
  UserAgent
  AddTimeOffsetMiddleware
  RecursionDetection
 Finalize stack step
  ResolveAuthScheme
  GetIdentity
  ResolveEndpointV2
  disableHTTPS
  ComputePayloadHash
  Retry
  RetryMetricsHeader
  setLegacyContextSigningOptions
  Signing
 Deserialize stack step
  AddRawResponseToMetadata
  ErrorCloseResponseBody
  CloseResponseBody
  ResponseErrorWrapper
  RequestIDRetriever
  OperationDeserializer
  AddTimeOffsetMiddleware
  RecordResponseTiming
```

RequestResponseLogger
AWS SDK for Go
Copyright 2015 Amazon.com, Inc. or its affiliates. All Rights Reserved.
Copyright 2014-2015 Stripe, Inc.
{
"smithy": "2.0",
"shapes": {
"com.amazonaws.licensemanagerlinuxsubscriptions#BoxInteger": {
"type": "integer"
},
"com.amazonaws.licensemanagerlinuxsubscriptions#BoxLong": {
"type": "long"
},
"com.amazonaws.licensemanagerlinuxsubscriptions#DeregisterSubscriptionProvider": {
"type": "operation",
"input": {
"target": "com.amazonaws.licensemanagerlinuxsubscriptions#DeregisterSubscriptionProviderRequest"
},
"output": {
"target": "com.amazonaws.licensemanagerlinuxsubscriptions#DeregisterSubscriptionProviderResponse"
},
"errors": [
{
"target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
},
{
"target": "com.amazonaws.licensemanagerlinuxsubscriptions#ResourceNotFoundException"
},

{
"target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
},
{
"target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
}
],
"traits": {
"smithy.api#documentation": " Remove a third-party subscription provider from the Bring Your Own License (BYOL) subscriptions \n\t\t\tregistered to your account. ",
"smithy.api#http": {
"code": 200,
"method": "POST",
"uri": "/subscription/DeregisterSubscriptionProvider"
},
"smithy.api#idempotent": {}
}
},
"com.amazonaws.licensemanagerlinuxsubscriptions#DeregisterSubscriptionProviderRequest": {

```
        "type": "structure",
        "members": {
          "SubscriptionProviderArn": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn",
             "traits": {
               "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the subscription provider
resource to deregister.</p>",
               "smithy.api#required": {}
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#DeregisterSubscriptionProviderResponse": {
        "type": "structure",
        "members": {},
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#Filter": {
        "type": "structure",
        "members": {
          "Name": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The type of name to filter by.</p>"
             }
          },
          "Values": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringList",
            "traits": {
              "smithy.api#documentation": "<p>One or more values for the name to filter by.</p>"
            }
          },
          "Operator": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Operator",
            "traits": {
              "smithy.api#documentation": "<p>An operator for filtering results.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>A filter object that is used to return more specific results from a describe
operation.\n      Filters can be used to match a set of resources by specific criteria.</p>"
        }
```

```
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#FilterList": {
      "type":
 "list",
      "member": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Filter"
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#GetRegisteredSubscriptionProvider": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#GetRegisteredSubscriptionProviderRequest"
      },
      "output": {
        "target":
"com.amazonaws.licensemanagerlinuxsubscriptions#GetRegisteredSubscriptionProviderResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
        },
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ResourceNotFoundException"
        },
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
         },
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Get details for a Bring Your Own License (BYOL) subscription that's
registered to your account.</p>",
        "smithy.api#http": {
          "code": 200,
          "method": "POST",
          "uri": "/subscription/GetRegisteredSubscriptionProvider"
        },
        "smithy.api#idempotent": {}
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#GetRegisteredSubscriptionProviderRequest": {
      "type": "structure",
      "members": {
        "SubscriptionProviderArn": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn",
          "traits": {
```

```
                "smithy.api#documentation":
 "<p>The Amazon Resource Name (ARN) of the BYOL registration resource to get details for.</p>",
                "smithy.api#required": {}
              }
            }
          },
          "traits": {
            "smithy.api#input": {}
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#GetRegisteredSubscriptionProviderResponse": {
          "type": "structure",
          "members": {
            "SubscriptionProviderArn": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn",
              "traits": {
                "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) for the BYOL registration
resource specified in the request.</p>"
              }
            },
            "SubscriptionProviderSource": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderSource",

           "traits": {
                "smithy.api#documentation": "<p>The subscription provider for the BYOL registration resource
specified \n\t\t\tin the request.</p>"
              }
            },
            "SecretArn": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SecretArn",
              "traits": {
                "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the third-party access
secret stored in Secrets Manager for the BYOL \n\t\t\tregistration resource specified in the request.</p>"
              }
            },
            "SubscriptionProviderStatus": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderStatus",
              "traits": {
                "smithy.api#documentation": "<p>The status of the Linux subscription provider access token from the
last \n\t\t\tsuccessful subscription data request.</p>"
               }
            },
            "SubscriptionProviderStatusMessage": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The detailed message from your subscription provider token
status.</p>"
              }
```

```
            },
            "LastSuccessfulDataRetrievalTime": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The timestamp from the last time License Manager retrieved
subscription details \n\t\t\tfrom your registered third-party Linux subscription provider.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#output": {}
         }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettings": {
         "type": "operation",
         "input": {
            "target":
 "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettingsRequest"
         },
         "output": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettingsResponse"
         },
         "errors": [
            {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
            },
            {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
            },
            {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Lists the Linux subscriptions service settings for your account.</p>",
            "smithy.api#http": {
               "code": 200,
               "method": "POST",
               "uri": "/subscription/GetServiceSettings"

          },
            "smithy.api#idempotent": {}
         }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettingsRequest": {
         "type": "structure",
         "members": {}
      },
```

```
    "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettingsResponse": {
      "type": "structure",
      "members": {
        "LinuxSubscriptionsDiscovery": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscovery",
          "traits": {
            "smithy.api#documentation": "<p>Lists if discovery has been enabled for Linux subscriptions.</p>"
          }
        },
        "LinuxSubscriptionsDiscoverySettings": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscoverySettings",
          "traits": {
            "smithy.api#documentation": "<p>Lists
 the settings defined for Linux subscriptions discovery. The settings include if\n      Organizations integration has
been enabled, and which Regions data will be aggregated from.</p>"
          }
        },
        "Status": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Status",
          "traits": {
            "smithy.api#documentation": "<p>Indicates the status of Linux subscriptions settings being
applied.</p>"
          }
        },
        "StatusMessage": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringMap",
          "traits": {
            "smithy.api#documentation": "<p>A message which details the Linux subscriptions service settings
current status.</p>"
          }
        },
        "HomeRegions": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringList",
           "traits": {
            "smithy.api#documentation": "<p>The Region in which License Manager displays the aggregated
data for Linux\n      subscriptions.</p>"
          }
        }
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#Instance": {
      "type": "structure",
      "members": {
        "AmiId": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The AMI ID used to launch the instance.</p>"
          }
```

```
        },
        "InstanceID": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The instance ID of the resource.</p>"
          }
        },
        "InstanceType": {
          "target": "smithy.api#String",
          "traits":
{
            "smithy.api#documentation": "<p>The instance type of the resource.</p>"
          }
        },
        "AccountID": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The account ID which owns the instance.</p>"
          }
        },
        "Status": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The status of the instance.</p>"
          }
        },
        "Region": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The Region the instance is running in.</p>"
          }
        },
        "UsageOperation": {
          "target": "smithy.api#String",

   "traits": {
            "smithy.api#documentation": "<p>The usage operation of the instance. For more information, see For more information, see\n        <a href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/linux-subscriptions-usage-operation.html\">Usage\n        operation values</a> in the <i>License Manager User Guide</i>.</p>"
          }
        },
        "ProductCode": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ProductCodeList",
          "traits": {
            "smithy.api#documentation": "<p>The product code for the instance. For more information, see <a href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/linux-subscriptions-usage-operation.html\">Usage\n        operation values</a> in the <i>License Manager User Guide</i> .</p>"
```

```
            }
        },
        "LastUpdatedTime": {
            "target": "smithy.api#String",
             "traits": {
                "smithy.api#documentation": "<p>The time in which the last discovery updated the instance details.</p>"
            }
        },
        "SubscriptionName": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The name of the license subscription that the instance uses.</p>"
            }
        },
        "OsVersion": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The operating system software version that runs on your instance.</p>"
            }
        },
        "SubscriptionProviderCreateTime": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The timestamp when you registered
 the third-party Linux subscription \n\t\t\tprovider for the subscription that the instance uses.</p>"
            }
        },
        "SubscriptionProviderUpdateTime": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The timestamp from the last time that the instance synced with the registered \n\t\t\tthird-party Linux subscription provider.</p>"
            }
        },
        "DualSubscription": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>Indicates that you have two different license subscriptions for \n\t\t\tthe same software on your instance.</p>"
            }
        },
        "RegisteredWithSubscriptionProvider": {
            "target": "smithy.api#String",
            "traits": {
```

```
    "smithy.api#documentation": "<p>Indicates that your instance uses a BYOL license subscription from \n\t\t\ta
third-party Linux subscription provider that you've registered with License Manager.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>Details discovered information about a running instance using Linux
subscriptions.</p>"
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#InstanceList": {
        "type": "list",
        "member": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Instance"
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException": {
        "type": "structure",
        "members": {
            "message": {
                "target": "smithy.api#String"
            }
        },
        "traits": {
            "smithy.api#documentation":
"<p>An exception occurred with the service.</p>",
            "smithy.api#error": "server"
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#LicenseManagerLinuxSubscriptions": {
        "type": "service",
        "version": "2018-05-10",
        "operations": [
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#DeregisterSubscriptionProvider"
            },
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#GetRegisteredSubscriptionProvider"
            },
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettings"
            },
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstances"
            },
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptions"
```

```
        },
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListRegisteredSubscriptionProviders"
        },
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListTagsForResource"
        },
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#RegisterSubscriptionProvider"
        },
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#TagResource"
        },
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UntagResource"
        },
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettings"
        }
      ],
      "traits": {
        "aws.api#service": {
          "sdkId": "License Manager Linux Subscriptions",
          "arnNamespace": "license-manager-linux-subscriptions",
          "cloudTrailEventSource": "license-manager-linux-subscriptions.amazonaws.com"
        },
        "aws.auth#sigv4": {
          "name": "license-manager-linux-subscriptions"
        },
        "aws.protocols#restJson1": {},
        "smithy.api#cors": {
          "additionalAllowedHeaders": [
            "*",
            "content-type",
            "x-amz-content-sha256",
            "x-amz-user-agent",
            "x-amzn-platform-id",
            "x-amzn-trace-id"
          ],
          "additionalExposedHeaders": [
            "x-amzn-errortype",
            "x-amzn-requestid",
            "x-amzn-trace-id"
          ]
        },
        "smithy.api#documentation": "<p>With License Manager,
you can discover and track your commercial Linux subscriptions on running\n      Amazon EC2 instances.</p>",
        "smithy.api#title": "AWS License Manager Linux Subscriptions",
```

```
        "smithy.rules#endpointRuleSet": {
          "version": "1.0",
          "parameters": {
            "Region": {
              "builtIn": "AWS::Region",
              "required": false,
              "documentation": "The AWS region used to dispatch the request.",
              "type": "String"
            },
            "UseDualStack": {
              "builtIn": "AWS::UseDualStack",
              "required": true,
              "default": false,
              "documentation": "When true, use the dual-stack endpoint. If the configured endpoint does not
support dual-stack, dispatching the request MAY return an error.",
               "type": "Boolean"
            },
            "UseFIPS": {
              "builtIn": "AWS::UseFIPS",
              "required": true,
              "default": false,
              "documentation": "When true, send this request to the FIPS-compliant regional endpoint. If the
configured endpoint does not have a FIPS compliant endpoint, dispatching the request will return an error.",
              "type": "Boolean"
            },
            "Endpoint": {
              "builtIn": "SDK::Endpoint",
              "required": false,
              "documentation": "Override the endpoint used to send this request",
              "type": "String"
            }
          },
          "rules": [
            {
              "conditions": [
                 {
                   "fn": "isSet",
                   "argv": [
                      {
                         "ref": "Endpoint"
                      }
                   ]
                 }
              ],
              "rules": [
                 {
                   "conditions": [
                      {
```

```
                "fn": "booleanEquals",
                "argv": [
                  {
                    "ref": "UseFIPS"
                  },
                  true
                ]
              }

        ],
                "error": "Invalid Configuration: FIPS and custom endpoint are not supported",
                "type": "error"
            },
            {
                "conditions": [],
                "rules": [
                  {
                    "conditions": [
                      {
                        "fn": "booleanEquals",
                        "argv": [
                          {
                            "ref": "UseDualStack"
                          },
                          true
                        ]

}
                    ],
                    "error": "Invalid Configuration: Dualstack and custom endpoint are not supported",
                    "type": "error"
                  },
                  {
                    "conditions": [],
                    "endpoint": {
                      "url": {
                        "ref": "Endpoint"
                      },
                      "properties": {},
                      "headers": {}
                    },
                    "type": "endpoint"
                  }
                ],
                "type": "tree"

            }
         ],
```

```
    "type": "tree"
},
{
    "conditions": [],
    "rules": [
        {
            "conditions": [
                {
                    "fn": "isSet",
                    "argv": [
                        {
                            "ref": "Region"
                        }
                    ]
                }
            ],
            "rules": [
                {
                    "conditions": [
                        {

    "fn": "aws.partition",
                            "argv": [
                                {
                                    "ref": "Region"
                                }
                            ],
                            "assign": "PartitionResult"
                        }
                    ],
                    "rules": [
                        {
                            "conditions": [
                                {
                                    "fn": "booleanEquals",
                                    "argv": [
                                        {

                                    "ref": "UseFIPS"
                                        },
                                        true
                                    ]
                                },
                                {
                                    "fn": "booleanEquals",
                                    "argv": [
                                        {
                                            "ref": "UseDualStack"
```

```
                    },
                    true
                ]
            }

    ],
                "rules": [
                    {
                        "conditions": [
                            {
                                "fn": "booleanEquals",
                                "argv": [
                                    true,
                                    {
                                        "fn": "getAttr",
                                        "argv": [
                                            {
                                                "ref": "PartitionResult"

                },
                                                "supportsFIPS"
                                            ]
                                        }
                                    ]
                                },
                                {
                                    "fn": "booleanEquals",
                                    "argv": [
                                        true,
                                        {
                                            "fn": "getAttr",
                                            "argv": [

                                             {
                                                    "ref": "PartitionResult"
                                                },
                                                "supportsDualStack"
                                            ]
                                        }
                                    ]
                                }
                            ],
                            "rules": [
                                {
                                    "conditions": [],

        "rules": [
                                        {
```

```
                                        "conditions": [],
                                        "endpoint": {
                                            "url": "https://license-manager-linux-subscriptions-
fips.{Region}.{PartitionResult#dualStackDnsSuffix}",
                                            "properties": {},
                                            "headers": {}
                                        },
                                        "type": "endpoint"
                                    }
                                ],

                        "type": "tree"
                                }
                            ],
                            "type": "tree"
                        },
                        {
                            "conditions": [],
                            "error": "FIPS and DualStack are enabled, but this partition does not support
one or both",
                            "type": "error"
                        }
                    ],
                    "type": "tree"
                },
                {

            "conditions": [
                        {
                            "fn": "booleanEquals",
                            "argv": [
                                {
                                    "ref": "UseFIPS"
                                },
                                true
                            ]
                        }
                    ],
                    "rules": [
                        {
                            "conditions": [
                                {

                    "fn": "booleanEquals",
                                    "argv": [
                                        {
                                            "fn": "getAttr",
                                            "argv": [
```

```
                                        {
                                            "ref": "PartitionResult"
                                        },
                                        "supportsFIPS"
                                    ]
                                },
                                true

                            ]
                        }
                    ],
                    "rules": [
                        {
                            "conditions": [],
                            "rules": [
                                {
                                    "conditions": [],
                                    "endpoint": {
                                        "url": "https://license-manager-linux-subscriptions-
fips.{Region}.{PartitionResult#dnsSuffix}",

    "properties": {},
                                        "headers": {}
                                    },
                                    "type": "endpoint"
                                }
                            ],
                            "type": "tree"
                        }
                    ],
                    "type": "tree"
                },
                {
                    "conditions": [],
                    "error": "FIPS is enabled
but this partition does not support FIPS",
                    "type": "error"
                }
            ],
            "type": "tree"
        },
        {
            "conditions": [
                {
                    "fn": "booleanEquals",
                    "argv": [
                        {
                            "ref": "UseDualStack"
```

```
                    },
                    true

                ]
            }
        ],
        "rules": [
            {
                "conditions": [
                    {
                        "fn": "booleanEquals",
                        "argv": [
                            true,
                            {
                                "fn": "getAttr",
                                "argv": [
                                    {

                                    "ref": "PartitionResult"
                                    },
                                    "supportsDualStack"
                                ]
                            }
                        ]
                    }
                ],
                "rules": [
                    {
                        "conditions": [],
                        "rules": [

    {
                                "conditions": [],
                                "endpoint": {
                                    "url": "https://license-manager-linux-
subscriptions.{Region}.{PartitionResult#dualStackDnsSuffix}",
                                    "properties": {},
                                    "headers": {}
                                },
                                "type": "endpoint"
                            }
                        ],
                        "type": "tree"

                    }
                ],
                "type": "tree"
            },
```

```
                                    {
                                        "conditions": [],
                                        "error": "DualStack is enabled but this partition does not support DualStack",
                                        "type": "error"
                                    }
                                ],
                                "type": "tree"
                            },
                            {
                                "conditions": [],
                                "rules": [
                                    {
                                        "conditions": [],
                                        "endpoint": {
                                            "url": "https://license-manager-linux-
subscriptions.{Region}.{PartitionResult#dnsSuffix}",
                                            "properties": {},
                                            "headers": {}
                                        },
                                        "type": "endpoint"
                                    }
                                ],
                                "type": "tree"
                            }
                        ],
                        "type": "tree"
                    }
                ],
                "type": "tree"
            },
            {
                "conditions": [],
                "error": "Invalid Configuration: Missing Region",
                "type": "error"
            }
        ],
        "type": "tree"
    }
]
},
"smithy.rules#endpointTests": {
    "testCases": [
        {
            "documentation": "For region us-east-1 with FIPS enabled and DualStack enabled",
            "expect": {
                "endpoint": {
                    "url": "https://license-manager-linux-subscriptions-fips.us-east-1.api.aws"
```

```
    }
        },
        "params": {
          "Region": "us-east-1",
          "UseFIPS": true,
          "UseDualStack": true
        }
      },
      {
        "documentation": "For region us-east-1 with FIPS enabled and DualStack disabled",
        "expect": {
          "endpoint": {
            "url": "https://license-manager-linux-subscriptions-fips.us-east-1.amazonaws.com"
          }
        },
        "params": {
          "Region": "us-east-1",
          "UseFIPS": true,
          "UseDualStack": false
        }
      },
      {

    "documentation": "For region us-east-1 with FIPS disabled and DualStack enabled",
        "expect": {
          "endpoint": {
            "url": "https://license-manager-linux-subscriptions.us-east-1.api.aws"
          }
        },
        "params": {
          "Region": "us-east-1",
          "UseFIPS": false,
          "UseDualStack": true
        }
      },
      {
        "documentation": "For region us-east-1 with FIPS disabled and DualStack disabled",
        "expect": {
          "endpoint": {
            "url": "https://license-manager-linux-subscriptions.us-east-1.amazonaws.com"
          }

  },
        "params": {
          "Region": "us-east-1",
          "UseFIPS": false,
          "UseDualStack": false
        }
```

```
    },
    {
      "documentation": "For region cn-north-1 with FIPS enabled and DualStack enabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-linux-subscriptions-fips.cn-north-
1.api.amazonwebservices.com.cn"
        }
      },
      "params": {
        "Region": "cn-north-1",
        "UseFIPS": true,
        "UseDualStack": true
      }
    },
    {

  "documentation": "For region cn-north-1 with FIPS enabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-linux-subscriptions-fips.cn-north-1.amazonaws.com.cn"
        }
      },
      "params": {
        "Region": "cn-north-1",
        "UseFIPS": true,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region cn-north-1 with FIPS disabled and DualStack enabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-linux-subscriptions.cn-north-1.api.amazonwebservices.com.cn"
        }
       },
      "params": {
        "Region": "cn-north-1",
        "UseFIPS": false,
        "UseDualStack": true
      }
    },
    {
      "documentation": "For region cn-north-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-linux-subscriptions.cn-north-1.amazonaws.com.cn"
        }
```

```
      },
      "params": {
        "Region": "cn-north-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {

"documentation": "For region us-gov-east-1 with FIPS enabled and DualStack enabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-linux-subscriptions-fips.us-gov-east-1.api.aws"
        }
      },
      "params": {
        "Region": "us-gov-east-1",
        "UseFIPS": true,
        "UseDualStack": true
      }
    },
    {
      "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-linux-subscriptions-fips.us-gov-east-1.amazonaws.com"
        }

     },
      "params": {
        "Region": "us-gov-east-1",
        "UseFIPS": true,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region us-gov-east-1 with FIPS disabled and DualStack enabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-linux-subscriptions.us-gov-east-1.api.aws"
        }
      },
      "params": {
        "Region": "us-gov-east-1",
        "UseFIPS": false,
        "UseDualStack": true
      }
    },
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                {

"documentation": "For region us-gov-east-1 with FIPS disabled and DualStack disabled",
                  "expect": {
                    "endpoint": {
                      "url": "https://license-manager-linux-subscriptions.us-gov-east-1.amazonaws.com"
                    }
                  },
                  "params": {
                    "Region": "us-gov-east-1",
                    "UseFIPS": false,
                    "UseDualStack": false
                  }
                },
                {
                  "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack enabled",
                  "expect": {
                    "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
                  },
                  "params": {

               "Region": "us-iso-east-1",
                    "UseFIPS": true,
                    "UseDualStack": true
                  }
                },
                {
                  "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack disabled",
                  "expect": {
                    "endpoint": {
                      "url": "https://license-manager-linux-subscriptions-fips.us-iso-east-1.c2s.ic.gov"
                    }
                  },
                  "params": {
                    "Region": "us-iso-east-1",
                    "UseFIPS": true,
                    "UseDualStack": false
                  }
                },
                {
                  "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack
enabled",
                  "expect": {
                    "error": "DualStack is enabled but this partition does not support DualStack"
                  },
                  "params": {
                    "Region": "us-iso-east-1",
                    "UseFIPS": false,
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            "UseDualStack": true
          }
        },
        {
          "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-linux-subscriptions.us-iso-east-1.c2s.ic.gov"
            }
          },
          "params": {
            "Region": "us-iso-east-1",
            "UseFIPS":
false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack enabled",
          "expect": {
            "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
          },
          "params": {
            "Region": "us-isob-east-1",
            "UseFIPS": true,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-linux-subscriptions-fips.us-isob-east-1.sc2s.sgov.gov"
             }
          },
          "params": {
            "Region": "us-isob-east-1",
            "UseFIPS": true,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack enabled",
          "expect": {
            "error": "DualStack is enabled but this partition does not support DualStack"
          },
          "params": {
            "Region": "us-isob-east-1",
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            "UseFIPS": false,
            "UseDualStack": true
          }
        },
        {

          "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-linux-subscriptions.us-isob-east-1.sc2s.sgov.gov"
            }
          },
          "params": {
            "Region": "us-isob-east-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For custom endpoint with region set and fips disabled and dualstack disabled",
          "expect": {
            "endpoint": {
              "url": "https://example.com"
            }

    },
          "params": {
            "Region": "us-east-1",
            "UseFIPS": false,
            "UseDualStack": false,
            "Endpoint": "https://example.com"
          }
        },
        {
          "documentation": "For custom endpoint with region not set and fips disabled and dualstack
disabled",
          "expect": {
            "endpoint": {
              "url": "https://example.com"
            }
          },
          "params": {
            "UseFIPS": false,
            "UseDualStack": false,
            "Endpoint": "https://example.com"
          }
        },
        {
```

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                "documentation": "For custom endpoint with fips enabled and dualstack disabled",
                "expect": {
                  "error": "Invalid Configuration: FIPS and custom endpoint are not supported"
                },
                "params": {
                  "Region": "us-east-1",
                  "UseFIPS": true,
                  "UseDualStack": false,
                  "Endpoint": "https://example.com"
                }
              },
              {
                "documentation": "For custom endpoint with fips disabled and dualstack enabled",
                "expect": {
                  "error": "Invalid Configuration: Dualstack and custom endpoint are not supported"
                },
                "params": {

"Region": "us-east-1",
                  "UseFIPS": false,
                  "UseDualStack": true,
                  "Endpoint": "https://example.com"
                }
              },
              {
                "documentation": "Missing region",
                "expect": {
                  "error": "Invalid Configuration: Missing Region"
                }
              }
            ],
            "version": "1.0"
          }
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscovery": {
        "type": "string",
        "traits": {
          "smithy.api#enum": [
            {
              "name": "Enabled",
              "value": "Enabled",
              "documentation": "Enabled LinuxSubscriptionsDiscovery"

       },
            {
              "name": "Disabled",
```

```
                "value": "Disabled",
                "documentation": "Disabled LinuxSubscriptionsDiscovery"
              }
            ]
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscoverySettings": {
          "type": "structure",
          "members": {
            "SourceRegions": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringList",
              "traits": {
                "smithy.api#documentation": "<p>The Regions in which to discover data for Linux
subscriptions.</p>",
                "smithy.api#required": {}
              }
            },
            "OrganizationIntegration": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#OrganizationIntegration",
              "traits": {
                "smithy.api#documentation":
 "<p>Details if you have enabled resource discovery across your accounts in Organizations.</p>",
                "smithy.api#required": {}
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>Lists the settings defined for discovering Linux subscriptions.</p>"
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstances": {
          "type": "operation",
          "input": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstancesRequest"
          },
          "output": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstancesResponse"
          },
          "errors": [
            {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
            },

  {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
            },
            {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
```

```
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists the running Amazon EC2 instances that were discovered with commercial Linux\n      subscriptions.</p>",
            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/subscription/ListLinuxSubscriptionInstances"
            },
            "smithy.api#idempotent": {},
            "smithy.api#paginated": {
                "inputToken": "NextToken",
                "outputToken": "NextToken",
                "pageSize": "MaxResults",
                "items": "Instances"
            }
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstancesRequest": {
        "type": "structure",
        "members": {
            "Filters": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#FilterList",
                "traits": {
                    "smithy.api#documentation": "<p>An array of structures that you can use to filter the results by your specified criteria. \n    \tFor example, you can specify <code>Region</code> in the <code>Name</code>, with the \n    \t<code>contains</code> operator to list all subscriptions that match a partial string in the \n \t<code>Value</code>, such as <code>us-west</code>.</p>\n          <p>For each filter, you can specify one of the following values for the <code>Name</code> key \n    \tto streamline results:</p>\n          <ul>\n            <li>\n              <p>\n                <code>AccountID</code>\n              </p>\n            </li>\n            <li>\n              <p>\n                <code>AmiID</code>\n              </p>\n            </li>\n            <li>\n              <p>\n <code>DualSubscription</code>\n              </p>\n            </li>\n            <li>\n              <p>\n <code>InstanceID</code>\n              </p>\n            </li>\n            <li>\n              <p>\n <code>InstanceType</code>\n              </p>\n            </li>\n            <li>\n              <p>\n <code>ProductCode</code>\n              </p>\n            </li>\n            <li>\n              <p>\n <code>Region</code>\n              </p>\n            </li>\n            <li>\n              <p>\n <code>Status</code>\n              </p>\n            </li>\n            <li>\n              <p>\n <code>UsageOperation</code>\n              </p>\n            </li>\n          </ul>\n          <p>For each filter, you can use one of the following <code>Operator</code>\n  values to \n  \t\tdefine the behavior of the filter:</p>\n          <ul>\n            <li>\n              <p>\n <code>contains</code>\n              </p>\n            </li>\n            <li>\n              <p>\n <code>equals</code>\n              </p>\n            </li>\n            <li>\n              <p>\n <code>Notequal</code>\n              </p>\n            </li>\n          </ul>"
                }
            },
            "MaxResults": {
```

```
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#BoxInteger",
            "traits": {
              "smithy.api#documentation": "<p>The maximum items to return in a request.</p>"
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>A token to specify where to
 start paginating. This \n\tis the nextToken from a previously truncated response.</p>",
              "smithy.api#length": {
                "min": 1,
                "max": 16384
              }
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "NextToken length limit is half of ddb accepted limit.\nIncrease this limit if
parameters in request increases."
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstancesResponse": {
        "type": "structure",
        "members": {
          "Instances": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InstanceList",
            "traits": {
              "smithy.api#documentation": "<p>An array that contains instance objects.</p>"
            }
          },
          "NextToken": {

         "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The next token used for paginated responses. When this \n\tfield
isn't empty, there are additional elements that the service hasn't \n\tincluded in this request. Use this token with the
next request to retrieve \n\tadditional objects.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptions": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionsRequest"
        },
        "output": {
```

```
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionsResponse"
          },
          "errors": [
            {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
            },
             {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
            },
            {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Lists the Linux subscriptions that have been discovered. If you have linked your\n      organization, the returned results will include data aggregated across your accounts in\n Organizations.</p>",
            "smithy.api#http": {
              "code": 200,
              "method": "POST",
              "uri": "/subscription/ListLinuxSubscriptions"
            },
            "smithy.api#idempotent": {},
            "smithy.api#paginated": {
              "inputToken": "NextToken",
              "outputToken": "NextToken",
              "pageSize": "MaxResults",

    "items": "Subscriptions"
            }
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionsRequest": {
          "type": "structure",
          "members": {
            "Filters": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#FilterList",
              "traits": {
                "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those that match one or\n      more sets of key-value pairs that you specify. For example, you can filter by the name of\n <code>Subscription</code> with an optional operator to see subscriptions that match,\n      partially match, or don't match a certain subscription's name.</p>\n        <p>The valid names for this filter are:</p>\n        <ul>\n <li>\n            <p>\n              <code>Subscription</code>\n            </p>\n          </li>\n        </ul>\n <p>The
 valid Operators for this filter are:</p>\n        <ul>\n          <li>\n            <p>\n <code>contains</code>\n            </p>\n          </li>\n          <li>\n            <p>\n <code>equals</code>\n            </p>\n          </li>\n          <li>\n            <p>\n <code>Notequal</code>\n            </p>\n          </li>\n        </ul>"
```

```
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#BoxInteger",
            "traits": {
              "smithy.api#documentation": "<p>The maximum items to return in a request.</p>"
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>A token to specify where to start paginating. This \n\tis
 the nextToken from a previously truncated response.</p>",
              "smithy.api#length": {
                "min": 1,
                "max": 16384
              }
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "NextToken length limit is half of ddb accepted limit.\nIncrease this limit if
parameters in request increases."
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionsResponse": {
        "type": "structure",
        "members": {
          "Subscriptions": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionList",
            "traits": {
              "smithy.api#documentation": "<p>An array that contains subscription objects.</p>"
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
             "traits": {
              "smithy.api#documentation": "<p>The next token used for paginated responses. When this \n\tfield
isn't empty, there are additional elements that the service hasn't \n\tincluded in this request. Use this token with the
next request to retrieve \n\tadditional objects.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#ListRegisteredSubscriptionProviders": {
        "type": "operation",
        "input": {
          "target":
```

```
"com.amazonaws.licensemanagerlinuxsubscriptions#ListRegisteredSubscriptionProvidersRequest"
        },
        "output": {
          "target":
"com.amazonaws.licensemanagerlinuxsubscriptions#ListRegisteredSubscriptionProvidersResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"

          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>List Bring Your Own License (BYOL) subscription registration
resources for your account.</p>",
          "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/subscription/ListRegisteredSubscriptionProviders"
          },
          "smithy.api#idempotent": {},
          "smithy.api#paginated": {
            "inputToken": "NextToken",
            "outputToken": "NextToken",
            "pageSize": "MaxResults",
            "items": "RegisteredSubscriptionProviders"
          }
        }

    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ListRegisteredSubscriptionProvidersRequest": {
        "type": "structure",
        "members": {
          "SubscriptionProviderSources": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderSourceList",
            "traits": {
              "smithy.api#documentation": "<p>To filter your results, specify which subscription providers to
return \n\t\t\tin the list.</p>"
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#BoxInteger",
```

```
            "traits": {
              "smithy.api#documentation": "<p>The maximum items to return in a request.</p>",
              "smithy.api#range": {
                "min": 1,
                "max": 100
              }
            }

  },
        "NextToken": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>A token to specify where to start paginating. This \n\tis the
nextToken from a previously truncated response.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ListRegisteredSubscriptionProvidersResponse": {
      "type": "structure",
      "members": {
        "RegisteredSubscriptionProviders": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#RegisteredSubscriptionProviderList",
          "traits": {
            "smithy.api#documentation": "<p>The list of BYOL registration resources that fit the criteria
\n\t\t\tyou specified in the request.</p>"
          }
        },

        "NextToken": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The next token used for paginated responses. When this \n\tfield
isn't empty, there are additional elements that the service hasn't \n\tincluded in this request. Use this token with the
next request to retrieve \n\tadditional objects.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ListTagsForResource": {
      "type": "operation",
      "input": {
```

```
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListTagsForResourceRequest"
          },
          "output": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListTagsForResourceResponse"
          },
          "errors": [
            {

        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
            },
            {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ResourceNotFoundException"
            },
            {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>List the metadata tags that are assigned to the \n\t\t\tspecified Amazon
Web Services resource.</p>",
            "smithy.api#http": {
              "method": "GET",
              "uri": "/tags/{resourceArn}"
            },
            "smithy.api#readonly": {}
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#ListTagsForResourceRequest": {
          "type": "structure",
          "members": {
            "resourceArn": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn",
               "traits": {
                 "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the resource for which to
list metadata tags.</p>",
                 "smithy.api#httpLabel": {},
                 "smithy.api#required": {}
               }
            }
          },
          "traits": {
            "smithy.api#input": {}
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#ListTagsForResourceResponse": {
          "type": "structure",
          "members": {
            "tags": {
```

```
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Tags",
            "traits": {
              "smithy.api#documentation": "<p>The metadata tags for the requested resource.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#Operator": {
        "type": "string",
        "traits": {
          "smithy.api#enum": [
            {
              "name": "EQUAL",
              "value": "Equal",
              "documentation": "Equal operator"
            },
            {
              "name": "NOT_EQUAL",
              "value": "NotEqual",
              "documentation": "Not equal operator"
            },
            {
              "name": "CONTAINS",
              "value": "Contains",
              "documentation": "Contains operator"
            }
          ],
          "smithy.api#length": {
            "min": 1,
            "max": 20
          }
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#OrganizationIntegration":
{
        "type": "string",
        "traits": {
          "smithy.api#enum": [
            {
              "name": "Enabled",
              "value": "Enabled",
              "documentation": "Enabled OrganizationIntegration"
            },
            {
              "name": "Disabled",
```

```
                "value": "Disabled",
                "documentation": "Disabled OrganizationIntegration"
              }
            ]
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#ProductCodeList": {
          "type": "list",
          "member": {
            "target": "smithy.api#String"
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#RegisterSubscriptionProvider": {
          "type": "operation",
          "input": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#RegisterSubscriptionProviderRequest"
           },
          "output": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#RegisterSubscriptionProviderResponse"
          },
          "errors": [
            {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
            },
            {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
            },
            {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Register the supported third-party subscription provider for your Bring
Your Own License (BYOL) subscription.</p>",
            "smithy.api#http": {
              "code": 200,
              "method": "POST",
              "uri": "/subscription/RegisterSubscriptionProvider"

            },
            "smithy.api#idempotent": {}
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#RegisterSubscriptionProviderRequest": {
          "type": "structure",
          "members": {
            "SubscriptionProviderSource": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderSource",
```

```
            "traits": {
              "smithy.api#documentation": "<p>The supported Linux subscription provider to register.</p>",
              "smithy.api#required": {}
            }
          },
          "SecretArn": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SecretArn",
            "traits": {
              "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the secret where you've
stored your subscription provider's access token. For \n\t\t\tRHEL subscriptions managed through the
 Red Hat Subscription Manager (RHSM), the secret contains \n\t\t\tyour Red Hat Offline token.</p>",
              "smithy.api#required": {}
            }
          },
          "Tags": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Tags",
            "traits": {
              "smithy.api#documentation": "<p>The metadata tags to assign to your registered Linux subscription
provider \n\t\t\tresource.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#RegisterSubscriptionProviderResponse": {
        "type": "structure",
        "members": {
          "SubscriptionProviderSource": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderSource",
            "traits": {
              "smithy.api#documentation":
 "<p>The Linux subscription provider that you registered.</p>"
            }
          },
          "SubscriptionProviderArn": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the Linux subscription
provider resource that you registered.</p>"
            }
          },
          "SubscriptionProviderStatus": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderStatus",
            "traits": {
              "smithy.api#documentation": "<p>Indicates the status of the registration action for the Linux
subscription provider \n\t\t\tthat you requested.</p>"
```

```
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#RegisteredSubscriptionProvider":
{
        "type": "structure",
        "members": {
          "SubscriptionProviderArn": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn",
            "traits": {
              "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the Linux subscription
provider resource that you registered.</p>"
            }
          },
          "SubscriptionProviderSource": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderSource",
            "traits": {
              "smithy.api#documentation": "<p>A supported third-party Linux subscription provider. License
Manager currently supports \n\t\t\tRed Hat subscriptions.</p>"
            }
          },
          "SecretArn": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SecretArn",
             "traits": {
              "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the Secrets Manager secret
that stores your registered Linux subscription provider \n\t\t\taccess token. For RHEL account subscriptions, this is
the offline token.</p>"
            }
          },
          "SubscriptionProviderStatus": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderStatus",
            "traits": {
              "smithy.api#documentation": "<p>Indicates the status of your registered Linux subscription provider
access token \n\t\t\tfrom the last time License Manager retrieved subscription data. For RHEL account subscriptions,
\n\t\t\tthis is the status of the offline token.</p>"
            }
          },
          "SubscriptionProviderStatusMessage": {
            "target": "smithy.api#String",
            "traits":
{
              "smithy.api#documentation": "<p>A detailed message that's associated with your BYOL subscription
\n\t\t\tprovider token status.</p>"
            }
```

```
            },
            "LastSuccessfulDataRetrievalTime": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The timestamp from the last time that License Manager accessed
third-party subscription data \n\t\t\tfor your account from your registered Linux subscription provider.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#documentation": "<p>A third-party provider for operating system (OS) platform software and
license \n\t\t\tsubscriptions, such as Red Hat. When you register a third-party Linux subscription \n\t\t\tprovider,
License Manager can get subscription data from the registered provider.</p>"
         }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#RegisteredSubscriptionProviderList":
{
         "type": "list",
         "member": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#RegisteredSubscriptionProvider"
         }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#ResourceNotFoundException": {
         "type": "structure",
         "members": {
            "message": {
               "target": "smithy.api#String"
            }
         },
         "traits": {
            "smithy.api#documentation": "<p>Unable to find the requested Amazon Web Services resource.</p>",
            "smithy.api#error": "client"
         }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#SecretArn": {
         "type": "string",
         "traits": {
            "smithy.api#pattern": "^arn:[a-z0-9-\\.]{1,63}:secretsmanager:[a-z0-9-\\.]{0,63}:[a-z0-9-
\\.]{0,63}:secret:[^/]{1,1023}$"

   }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#Status": {
         "type": "string",
         "traits": {
            "smithy.api#enum": [
               {
                  "name": "InProgress",
```

```
            "value": "InProgress",
            "documentation": "InProgress status"
          },
          {
            "name": "Completed",
            "value": "Completed",
            "documentation": "Completed status"
          },
          {
            "name": "Successful",
            "value": "Successful",
            "documentation": "Successful status"
          },
          {
            "name": "Failed",
            "value": "Failed",
            "documentation": "Failed status"
          }
        ]
      }
    },

    "com.amazonaws.licensemanagerlinuxsubscriptions#StringList": {
      "type": "list",
      "member": {
        "target": "smithy.api#String",
        "traits": {
          "smithy.api#length": {
            "min": 1,
            "max": 100
          }
        }
      },
      "traits": {
        "smithy.api#length": {
          "min": 1,
          "max": 100
        },
        "smithy.api#uniqueItems": {}
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#StringMap": {
      "type": "map",
      "key": {
        "target": "smithy.api#String"
      },
      "value": {
        "target": "smithy.api#String"
```

```
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#Subscription": {
        "type": "structure",
        "members": {
          "Name":
{
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The name of the subscription.</p>"
            }
          },
          "Type": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The type of subscription. The type can be subscription-included with Amazon EC2, Bring Your Own\n      Subscription model (BYOS), or from the Amazon Web Services Marketplace. Certain subscriptions may use licensing from the\n      Amazon Web Services Marketplace as well as OS licensing from Amazon EC2 or BYOS.</p>"
            }
          },
          "InstanceCount": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#BoxLong",
            "traits": {
              "smithy.api#documentation": "<p>The total amount of running instances using this subscription.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>An object which details a discovered Linux subscription.</p>"
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Subscription"
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn": {
        "type": "string",
        "traits": {
          "smithy.api#pattern": "^arn:[a-z0-9-\\.]{1,63}:[a-z0-9-\\.]{1,63}:[a-z0-9-\\.]{1,63}:[a-z0-9-\\.]{1,63}:[a-z0-9-\\.]{1,510}/[a-z0-9-\\.]{1,510}$"
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderSource": {
        "type": "string",
```

```
      "traits": {
        "smithy.api#enum": [

{
            "name": "RedHat",
            "value": "RedHat",
            "documentation": "RedHat subscription provider namespace"
          }
        ]
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderSourceList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderSource"
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderStatus": {
      "type": "string",
      "traits": {
        "smithy.api#enum": [
          {
            "name": "ACTIVE",
            "value": "ACTIVE",
            "documentation": "ACTIVE status"
          },
          {
            "name": "INVALID",
            "value": "INVALID",

 "documentation": "INVALID status"
          },
          {
            "name": "PENDING",
            "value": "PENDING",
            "documentation": "PENDING status"
          }
        ]
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#TagKeyList": {
      "type": "list",
      "member": {
        "target": "smithy.api#String"
      },
      "traits": {
        "smithy.api#length": {
          "min": 0,
```

```
                "max": 50
            },
            "smithy.api#sensitive": {}
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#TagResource": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#TagResourceRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#TagResourceResponse"
         },
        "errors": [
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
            },
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ResourceNotFoundException"
            },
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Add metadata tags to the specified Amazon Web Services
resource.</p>",
            "smithy.api#http": {
                "method": "PUT",
                "uri": "/tags/{resourceArn}"
            },
            "smithy.api#idempotent": {}
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#TagResourceRequest": {
        "type": "structure",
        "members":
 {
            "resourceArn": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn",
                "traits": {
                    "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the Amazon Web Services
resource to which to add the specified \n\t\t\tmetadata tags.</p>",
                    "smithy.api#httpLabel": {},
                    "smithy.api#required": {}
                }
            },
            "tags": {
```

```
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Tags",
            "traits": {
              "smithy.api#documentation": "<p>The metadata tags to assign to the Amazon Web Services resource.
Tags are \n\t\t\tformatted as key value pairs.</p>",
              "smithy.api#required": {}
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }

      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#TagResourceResponse": {
        "type": "structure",
        "members": {},
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#Tags": {
        "type": "map",
        "key": {
          "target": "smithy.api#String"
        },
        "value": {
          "target": "smithy.api#String"
        },
        "traits": {
          "smithy.api#length": {
            "min": 0,
            "max": 50
          },
          "smithy.api#sensitive": {}
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException": {
        "type": "structure",
        "members": {
          "message": {
            "target": "smithy.api#String"
          }
        },
        "traits": {
          "smithy.api#documentation":
"<p>The request was denied due to request throttling.</p>",
          "smithy.api#error": "client"
        }
```

```
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#UntagResource": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UntagResourceRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UntagResourceResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
        },
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ResourceNotFoundException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Remove one or more metadata tag from the specified Amazon Web
Services resource.</p>",
         "smithy.api#http": {
          "method": "DELETE",
          "uri": "/tags/{resourceArn}"
        },
        "smithy.api#idempotent": {}
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#UntagResourceRequest": {
      "type": "structure",
      "members": {
        "resourceArn": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn",
          "traits": {
            "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the Amazon Web Services
resource to remove the metadata tags from.</p>",
            "smithy.api#httpLabel": {},
            "smithy.api#required": {}
          }
        },
        "tagKeys": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#TagKeyList",
          "traits": {

       "smithy.api#documentation": "<p>A list of metadata tag keys to remove from the requested
\n\t\t\tresource.</p>",
            "smithy.api#httpQuery": "tagKeys",
            "smithy.api#required": {}
          }
```

```
        }
    },
    "traits": {
        "smithy.api#input": {}
    }
},
"com.amazonaws.licensemanagerlinuxsubscriptions#UntagResourceResponse": {
    "type": "structure",
    "members": {},
    "traits": {
        "smithy.api#output": {}
    }
},
"com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettings": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettingsRequest"
    },
    "output": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettingsResponse"

 },
    "errors": [
        {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
        },
        {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
        },
        {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
        }
    ],
    "traits": {
        "smithy.api#documentation": "<p>Updates the service settings for Linux subscriptions.</p>",
        "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/subscription/UpdateServiceSettings"
        },
        "smithy.api#idempotent": {}
    }
},
"com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettingsRequest": {
    "type": "structure",
    "members": {
        "LinuxSubscriptionsDiscovery": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscovery",
```

```
            "traits": {
              "smithy.api#documentation": "<p>Describes if the discovery of Linux subscriptions is enabled.</p>",
              "smithy.api#required": {}
            }
          },
          "LinuxSubscriptionsDiscoverySettings": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscoverySettings",
            "traits": {
              "smithy.api#documentation": "<p>The settings defined for Linux subscriptions discovery. The
settings include if Organizations\n      integration has been enabled, and which Regions data will be aggregated
from.</p>",
              "smithy.api#required": {}
            }
          },
          "AllowUpdate": {
            "target":
 "smithy.api#Boolean",
            "traits": {
              "smithy.api#documentation": "<p>Describes if updates are allowed to the service settings for Linux
subscriptions. If you\n      allow updates, you can aggregate Linux subscription data in more than one home
Region.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettingsResponse": {
        "type": "structure",
        "members": {
          "LinuxSubscriptionsDiscovery": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscovery",
            "traits": {
              "smithy.api#documentation": "<p>Lists if discovery has been enabled for Linux subscriptions.</p>"
            }
          },
          "LinuxSubscriptionsDiscoverySettings": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscoverySettings",
             "traits": {
              "smithy.api#documentation": "<p>The settings defined for Linux subscriptions discovery. The
settings include if Organizations\n      integration has been enabled, and which Regions data will be aggregated
from.</p>"
            }
          },
          "Status": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Status",
            "traits": {
              "smithy.api#documentation": "<p>Indicates the status of Linux subscriptions settings being
applied.</p>"
            }
```

```
            },
            "StatusMessage": {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringMap",
               "traits": {
                  "smithy.api#documentation": "<p>A message which details the Linux subscriptions service settings
current status.</p>"
               }

        },
            "HomeRegions": {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringList",
               "traits": {
                  "smithy.api#documentation": "<p>The Region in which License Manager displays the aggregated
data for Linux\n      subscriptions.</p>"
               }
            }
         }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException": {
         "type": "structure",
         "members": {
            "message": {
               "target": "smithy.api#String"
            }
         },
         "traits": {
            "smithy.api#documentation": "<p>The provided input is not valid. Try your request again.</p>",
            "smithy.api#error": "client"
         }
      }
   }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Deletes the specified license.
func (c *Client) DeleteLicense(ctx context.Context, params *DeleteLicenseInput, optFns ...func(*Options))
(*DeleteLicenseOutput, error) {
```

```
 if params == nil {
  params = &DeleteLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "DeleteLicense", params, optFns,
c.addOperationDeleteLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*DeleteLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type DeleteLicenseInput struct {

 // Amazon Resource Name (ARN) of the license.
 //
 // This member is required.
 LicenseArn *string

 // Current version of the license.
 //
 // This member is required.
 SourceVersion
 *string

 noSmithyDocumentSerde
}

type DeleteLicenseOutput struct {

 // Date when the license is deleted.
 DeletionDate *string

 // License status.
 Status types.LicenseDeletionStatus

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationDeleteLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
```

```
}
err = stack.Serialize.Add(&awsAwsjson11_serializeOpDeleteLicense{}, middleware.After)
if err != nil {
 return err
}
err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpDeleteLicense{}, middleware.After)
if err != nil {
 return err
}
if err := addProtocolFinalizerMiddlewares(stack, options, "DeleteLicense"); err != nil {
 return fmt.Errorf("add protocol finalizers: %v", err)
}

if err = addlegacyEndpointContextSetter(stack, options); err !=
nil {
 return err
}
if err = addSetLoggerMiddleware(stack, options); err != nil {
 return err
}
if err = addClientRequestID(stack); err != nil {
 return err
}
if err = addComputeContentLength(stack); err != nil {
 return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
 return err
}
if err = addComputePayloadSHA256(stack); err != nil {
 return err
}
if err = addRetry(stack, options); err != nil {
 return err
}
if err = addRawResponseToMetadata(stack); err != nil {
 return err
}
if err = addRecordResponseTiming(stack); err != nil {
 return err
}
if err = addClientUserAgent(stack, options); err != nil {
 return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
```

```
 return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
 return err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil
 {
 return err
 }
 if err = addUserAgentRetryMode(stack, options); err != nil {
 return err
 }
 if err = addOpDeleteLicenseValidationMiddleware(stack); err != nil {
 return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opDeleteLicense(options.Region),
middleware.Before); err != nil {
 return err
 }
 if err = addRecursionDetection(stack); err != nil {
 return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
 return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
 return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
 return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
 return err
 }
 return nil
}

func newServiceMetadataMiddleware_opDeleteLicense(region string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:    ServiceID,
  OperationName: "DeleteLicense",
 }
}
DeleteLicense
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
```

SetLogger
OperationInputValidation
Serialize stack step
setOperationInput
ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
UserAgent
AddTimeOffsetMiddleware
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
AddTimeOffsetMiddleware
RecordResponseTiming
RequestResponseLogger
GetLicense
Initialize stack step
RegisterServiceMetadata
legacyEndpointContextSetter
SetLogger
OperationInputValidation
Serialize stack step
setOperationInput
ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
UserAgent
AddTimeOffsetMiddleware
RecursionDetection

```
 Finalize stack step
  ResolveAuthScheme
  GetIdentity
  ResolveEndpointV2
  disableHTTPS
  ComputePayloadHash
  Retry
  RetryMetricsHeader
  setLegacyContextSigningOptions
  Signing
 Deserialize stack step
  AddRawResponseToMetadata
  ErrorCloseResponseBody
  CloseResponseBody
  ResponseErrorWrapper
  RequestIDRetriever
  OperationDeserializer
  AddTimeOffsetMiddleware
  RecordResponseTiming
  RequestResponseLogger
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Checks out the specified license for offline use.
func (c *Client) CheckoutBorrowLicense(ctx context.Context, params *CheckoutBorrowLicenseInput, optFns
...func(*Options)) (*CheckoutBorrowLicenseOutput, error) {
 if params == nil {
  params = &CheckoutBorrowLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "CheckoutBorrowLicense", params, optFns,
c.addOperationCheckoutBorrowLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*CheckoutBorrowLicenseOutput)
 out.ResultMetadata = metadata
```

```
 return out, nil
}

type CheckoutBorrowLicenseInput struct {

 // Unique, case-sensitive identifier that you provide to ensure the idempotency of
 //
 the request.
 //
 // This member is required.
 ClientToken *string

 // Digital signature method. The possible value is JSON Web Signature (JWS)
 // algorithm PS384. For more information, see [RFC 7518 Digital Signature with RSASSA-PSS].
 //
 // [RFC 7518 Digital Signature with RSASSA-PSS]: https://tools.ietf.org/html/rfc7518#section-3.5
 //
 // This member is required.
 DigitalSignatureMethod types.DigitalSignatureMethod

 // License entitlements. Partial checkouts are not supported.
 //
 // This member is required.
 Entitlements []types.EntitlementData

 // Amazon Resource Name (ARN) of the license. The license must use the borrow
 // consumption configuration.
 //
 // This member is required.
 LicenseArn *string

 // Information about constraints.
 CheckoutMetadata []types.Metadata

 // Node ID.
 NodeId *string

 noSmithyDocumentSerde
}

type CheckoutBorrowLicenseOutput struct {

 // Information about constraints.
 CheckoutMetadata []types.Metadata

 // Allowed license entitlements.
 EntitlementsAllowed
```

```
[]types.EntitlementData

// Date and time at which the license checkout expires.
Expiration *string

// Date and time at which the license checkout is issued.
IssuedAt *string

// Amazon Resource Name (ARN) of the license.
LicenseArn *string

// License consumption token.
LicenseConsumptionToken *string

// Node ID.
NodeId *string

// Signed token.
SignedToken *string

// Metadata pertaining to the operation's result.
ResultMetadata middleware.Metadata

noSmithyDocumentSerde
}

func (c *Client) addOperationCheckoutBorrowLicenseMiddlewares(stack *middleware.Stack, options Options) (err
error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpCheckoutBorrowLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpCheckoutBorrowLicense{}, middleware.After)
 if err != nil {
  return
 err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "CheckoutBorrowLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
```

```
 return err
}
if err = addClientRequestID(stack); err != nil {
 return err
}
if err = addComputeContentLength(stack); err != nil {
 return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
 return err
}
if err = addComputePayloadSHA256(stack); err != nil {
 return err
}
if err = addRetry(stack, options); err != nil {
 return err
}
if err = addRawResponseToMetadata(stack); err != nil {
 return err
}
if err = addRecordResponseTiming(stack); err != nil {
 return err
}
if err = addClientUserAgent(stack, options); err != nil {
 return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return
err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
 return err
}
if err = addTimeOffsetBuild(stack, c); err != nil {
 return err
}
if err = addUserAgentRetryMode(stack, options); err != nil {
 return err
}
if err = addOpCheckoutBorrowLicenseValidationMiddleware(stack); err != nil {
 return err
}
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opCheckoutBorrowLicense(options.Region),
middleware.Before); err != nil {
 return err
```

```
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opCheckoutBorrowLicense(region
 string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName: "CheckoutBorrowLicense",
 }
}
```

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// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Checks in the specified license. Check in a license when it is no longer in use.
func (c *Client) CheckInLicense(ctx context.Context, params *CheckInLicenseInput, optFns ...func(*Options))
(*CheckInLicenseOutput, error) {
 if params == nil {
  params = &CheckInLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "CheckInLicense", params, optFns,
c.addOperationCheckInLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*CheckInLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type CheckInLicenseInput struct {

 // License consumption token.
 //
 // This member is required.
 LicenseConsumptionToken *string

 // License beneficiary.
 Beneficiary *string

 noSmithyDocumentSerde
```

```
}

type
 CheckInLicenseOutput struct {
 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationCheckInLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpCheckInLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpCheckInLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "CheckInLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if
 err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
```

```
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
  return err
 }
 if err = addUserAgentRetryMode(stack, options); err != nil {
  return err
 }
 if err = addOpCheckInLicenseValidationMiddleware(stack); err != nil
 {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opCheckInLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
```

```
}

func newServiceMetadataMiddleware_opCheckInLicense(region string) *awsmiddleware.RegisterServiceMetadata
{
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:    ServiceID,
  OperationName: "CheckInLicense",
 }
}
```

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```
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Lists the licenses for your account.
func (c *Client) ListLicenses(ctx context.Context, params *ListLicensesInput, optFns ...func(*Options))
(*ListLicensesOutput, error) {
 if params == nil {
  params = &ListLicensesInput{}
 }
```

```
 result, metadata, err := c.invokeOperation(ctx, "ListLicenses", params, optFns,
c.addOperationListLicensesMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*ListLicensesOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type ListLicensesInput struct {

 // Filters to scope the results. The following filters are supported:
 //
 //   - Beneficiary
 //
 //   - ProductSKU
 //
 //   - Fingerprint
 //
 //   - Status
 Filters
 []types.Filter

 // Amazon Resource Names (ARNs) of the licenses.
 LicenseArns []string

 // Maximum number of results to return in a single call.
 MaxResults *int32

 // Token for the next set of results.
 NextToken *string

 noSmithyDocumentSerde
}

type ListLicensesOutput struct {

 // License details.
 Licenses []types.License

 // Token for the next set of results.
 NextToken *string

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata
```

```
 noSmithyDocumentSerde
}

func (c *Client) addOperationListLicensesMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpListLicenses{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpListLicenses{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack,
 options, "ListLicenses"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
```

```
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack);
 err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
  return err
 }
 if err = addUserAgentRetryMode(stack, options); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opListLicenses(options.Region), middleware.Before);
err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opListLicenses(region string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:
     ServiceID,
  OperationName: "ListLicenses",
 }
```

}
CheckInLicense
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
  OperationInputValidation
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
 Build stack step
  ClientRequestID
  ComputeContentLength
  UserAgent
  AddTimeOffsetMiddleware
  RecursionDetection
 Finalize stack step
  ResolveAuthScheme
  GetIdentity
  ResolveEndpointV2
  disableHTTPS
  ComputePayloadHash
  Retry
  RetryMetricsHeader
  setLegacyContextSigningOptions
  Signing
 Deserialize stack step
  AddRawResponseToMetadata
  ErrorCloseResponseBody
  CloseResponseBody
  ResponseErrorWrapper
  RequestIDRetriever
  OperationDeserializer
  AddTimeOffsetMiddleware
  RecordResponseTiming
  RequestResponseLogger
{
  "smithy": "2.0",
  "shapes": {
    "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException": {
      "type": "structure",
      "members": {
        "message": {
          "target": "smithy.api#String"
        }
      },
      "traits": {

```
            "smithy.api#documentation": "<p>You don't have sufficient access to perform this action.</p>",
            "smithy.api#error": "client"
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ActiveDirectoryIdentityProvider": {
        "type": "structure",
        "members": {
            "DirectoryId": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The directory ID for an Active Directory identity provider.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#documentation":
"<p>Details about an Active Directory identity provider.</p>"
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#AssociateUser": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AssociateUserRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AssociateUserResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
             },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
```

```
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Associates the user to an EC2 instance to utilize user-based
subscriptions.</p>\n        <note>\n            <p>Your estimated bill for charges on the number of users and related
costs will take 48\n        hours to appear for billing periods that haven't closed (marked as <b>Pending</b> billing
status) in Amazon Web Services Billing. For more information, see <a
href=\"https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/invoice.html\">Viewing your\n
        monthly charges</a> in the <i>Amazon Web Services Billing User Guide</i>.</p>\n        </note>",
            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/user/AssociateUser"
            },
            "smithy.api#idempotent": {}
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#AssociateUserRequest": {
        "type": "structure",
        "members": {
            "Username": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The user name from the identity provider for the user.</p>",
                    "smithy.api#required": {}
                }
            },
            "InstanceId": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The ID of the
 EC2 instance, which provides user-based subscriptions.</p>",
                    "smithy.api#required": {}
                }
            },
            "IdentityProvider": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
                "traits": {
                    "smithy.api#documentation": "<p>The identity provider of the user.</p>",
                    "smithy.api#required": {}
                }
            },
            "Domain": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The domain name of the user.</p>"
                }
            }
```

```
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#AssociateUserResponse": {
        "type": "structure",
        "members": {
          "InstanceUserSummary": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummary",
             "traits": {
               "smithy.api#documentation": "<p>Metadata that describes the associate user operation.</p>",
               "smithy.api#required": {}
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#BoxInteger": {
        "type": "integer"
      },
      "com.amazonaws.licensemanagerusersubscriptions#ConflictException": {
        "type": "structure",
        "members": {
          "message": {
            "target": "smithy.api#String"
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>The request couldn't be completed because it conflicted with the current
state of the\n      resource.</p>",
          "smithy.api#error": "server"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProvider":
{
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProviderRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProviderResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
```

```
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
             },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Deregisters the identity provider from providing user-based
subscriptions.</p>",
            "smithy.api#http": {
               "code": 200,
               "method": "POST",
               "uri": "/identity-provider/DeregisterIdentityProvider"
            },
            "smithy.api#idempotent": {}
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProviderRequest": {
         "type": "structure",
         "members": {
            "IdentityProvider": {
               "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
                "traits": {
                  "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
                  "smithy.api#required": {}
               }
            },
            "Product": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
                  "smithy.api#required": {}
               }
            }
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProviderResponse": {
         "type": "structure",
         "members": {
            "IdentityProviderSummary": {
```

```
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary",
            "traits": {
              "smithy.api#documentation":
 "<p>Metadata that describes the results of an identity provider operation.</p>",
              "smithy.api#required": {}
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#DisassociateUser": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#DisassociateUserRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#DisassociateUserResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
           },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Disassociates the user from an EC2 instance providing user-based
subscriptions.</p>",
          "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/user/DisassociateUser"
          },
```

```
            "smithy.api#idempotent": {}
        }

    },
    "com.amazonaws.licensemanagerusersubscriptions#DisassociateUserRequest": {
        "type": "structure",
        "members": {
            "Username": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The user name from the identity provider for the user.</p>",
                    "smithy.api#required": {}
                }
            },
            "InstanceId": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The ID of the EC2 instance, which provides user-based
subscriptions.</p>",
                    "smithy.api#required": {}
                }
            },
            "IdentityProvider": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
                "traits": {
                    "smithy.api#documentation":
"<p>An object that specifies details for the identity provider.</p>",
                    "smithy.api#required": {}
                }
            },
            "Domain": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The domain name of the user.</p>"
                }
            }
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#DisassociateUserResponse": {
        "type": "structure",
        "members": {
            "InstanceUserSummary": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummary",
                "traits": {
                    "smithy.api#documentation": "<p>Metadata that describes the associate user operation.</p>",
                    "smithy.api#required": {}
                }
            }
```

```
        }
      },

"com.amazonaws.licensemanagerusersubscriptions#Filter": {
        "type": "structure",
        "members": {
          "Attribute": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The name of an attribute to use as a filter.</p>"
            }
          },
          "Operation": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The type of search (For example, eq, geq, leq)</p>"
            }
          },
          "Value": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Value of the filter.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>A filter name and value pair that is used
 to return more specific results from a describe\n      operation. Filters can be used to match a set of resources by
specific criteria, such as tags,\n      attributes, or IDs.</p>"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#FilterList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#Filter"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider": {
        "type": "union",
        "members": {
          "ActiveDirectoryIdentityProvider": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ActiveDirectoryIdentityProvider",
            "traits": {
              "smithy.api#documentation": "<p>An object that details an Active Directory identity provider.</p>"
            }
          }
        },
        "traits": {
```

```
            "smithy.api#documentation":
"<p>Details about an identity provider.</p>"
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary": {
          "type": "structure",
          "members": {
            "IdentityProvider": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
              "traits": {
                "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
                "smithy.api#required": {}
              }
            },
            "Settings": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#Settings",
              "traits": {
                "smithy.api#documentation": "<p>An object that details the registered identity providers product
related configuration\n      settings such as the subnets to provision VPC endpoints.</p>",
                "smithy.api#required":
{}
              }
            },
            "Product": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
                "smithy.api#required": {}
              }
            },
            "Status": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The status of an identity provider.</p>",
                "smithy.api#required": {}
              }
            },
            "FailureMessage": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The failure message associated with an identity provider.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#documentation":
"<p>Describes an identity provider.</p>"
          }
```

```
    },
    "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummaryList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#InstanceSummary": {
      "type": "structure",
      "members": {
        "InstanceId": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The ID of the EC2 instance, which provides user-based
subscriptions.</p>",
            "smithy.api#required": {}
          }
        },
        "Status": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The status
 of an EC2 instance resource.</p>",
            "smithy.api#required": {}
          }
        },
        "Products": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#StringList",
          "traits": {
            "smithy.api#documentation": "<p>A list of provided user-based subscription products.</p>",
            "smithy.api#required": {}
          }
        },
        "LastStatusCheckDate": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The date of the last status check.</p>"
          }
        },
        "StatusMessage": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The status message for an EC2 instance.</p>"
          }

    }
      },
      "traits": {
```

```
            "smithy.api#documentation": "<p>Describes an EC2 instance providing user-based subscriptions.</p>"
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#InstanceSummaryList": {
        "type": "list",
        "member": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceSummary"
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummary": {
        "type": "structure",
        "members": {
            "Username": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The user name from the identity provider for the user.</p>",
                    "smithy.api#required": {}
                }
            },
            "InstanceId": {
                "target": "smithy.api#String",
                "traits":
{
                    "smithy.api#documentation": "<p>The ID of the EC2 instance, which provides user-based
subscriptions.</p>",
                    "smithy.api#required": {}
                }
            },
            "IdentityProvider": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
                "traits": {
                    "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
                    "smithy.api#required": {}
                }
            },
            "Status": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The status of a user associated with an EC2 instance.</p>",
                    "smithy.api#required": {}
                }
            },
            "StatusMessage": {
                "target": "smithy.api#String",
                 "traits": {
                    "smithy.api#documentation": "<p>The status message for users of an EC2 instance.</p>"
                }
            },
```

```
            "Domain": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The domain name of the user.</p>"
              }
            },
            "AssociationDate": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The date a user was associated with an EC2 instance.</p>"
              }
            },
            "DisassociationDate": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The date a user was disassociated from an EC2 instance.</p>"
              }
            }

  },
        "traits": {
          "smithy.api#documentation": "<p>Describes users of an EC2 instance providing user-based
subscriptions.</p>"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummaryList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummary"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#InternalServerException": {
        "type": "structure",
        "members": {
          "message": {
            "target": "smithy.api#String"
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>An exception occurred with the service.</p>",
          "smithy.api#error": "server"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#LicenseManagerUserSubscriptions": {
        "type": "service",

       "version": "2018-05-10",
        "operations": [
```

```
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#AssociateUser"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProvider"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#DisassociateUser"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProviders"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ListInstances"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptions"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociations"

},
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProvider"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscription"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscription"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettings"
            }
          ],
          "traits": {
            "aws.api#service": {
              "sdkId": "License Manager User Subscriptions",
              "arnNamespace": "license-manager-user-subscriptions",
              "cloudTrailEventSource": "license-manager-user-subscriptions.amazonaws.com"
            },
            "aws.auth#sigv4": {
              "name": "license-manager-user-subscriptions"
             },
            "aws.protocols#restJson1": {},
            "smithy.api#cors": {
              "additionalAllowedHeaders": [
                "*",
```

```
                "content-type",
                "x-amz-content-sha256",
                "x-amz-user-agent",
                "x-amzn-platform-id",
                "x-amzn-trace-id",
                "content-length",
                "x-api-key",
                "authorization",
                "x-amz-date",
                "x-amz-security-token",
                "Access-Control-Allow-Headers",
                "Access-Control-Allow-Methods",
                "Access-Control-Allow-Origin"
            ],
            "additionalExposedHeaders": [
                "x-amzn-errortype",
                "x-amzn-requestid",
                "x-amzn-trace-id"

]
        },
        "smithy.api#documentation": "<p>With License Manager, you can create user-based subscriptions to utilize licensed software with\n      a per user subscription fee on Amazon EC2 instances.</p>",
        "smithy.api#title": "AWS License Manager User Subscriptions",
        "smithy.rules#endpointRuleSet": {
            "version": "1.0",
            "parameters": {
                "Region": {
                    "builtIn": "AWS::Region",
                    "required": false,
                    "documentation": "The AWS region used to dispatch the request.",
                    "type": "String"
                },
                "UseDualStack": {
                    "builtIn": "AWS::UseDualStack",
                    "required": true,
                    "default": false,
                    "documentation": "When true, use the dual-stack
 endpoint. If the configured endpoint does not support dual-stack, dispatching the request MAY return an error.",
                    "type": "Boolean"
                },
                "UseFIPS": {
                    "builtIn": "AWS::UseFIPS",
                    "required": true,
                    "default": false,
                    "documentation": "When true, send this request to the FIPS-compliant regional endpoint. If the configured endpoint does not have a FIPS compliant endpoint, dispatching the request will return an error.",
                    "type": "Boolean"
```

```
        },
        "Endpoint": {
          "builtIn": "SDK::Endpoint",
          "required": false,
          "documentation": "Override the endpoint used to send this request",
          "type": "String"
        }

    },
      "rules": [
        {
          "conditions": [
            {
              "fn": "isSet",
              "argv": [
                {
                  "ref": "Endpoint"
                }
              ]
            }
          ],
          "type": "tree",
          "rules": [
            {
              "conditions": [
                {
                  "fn": "booleanEquals",
                  "argv": [
                    {
                      "ref": "UseFIPS"
                    },

                  true
                  ]
                }
              ],
              "error": "Invalid Configuration: FIPS and custom endpoint are not supported",
              "type": "error"
            },
            {
              "conditions": [
                {
                  "fn": "booleanEquals",
                  "argv": [
                    {
                      "ref": "UseDualStack"
                    },
                    true
```

```
                    ]
                }
            ],

"error": "Invalid Configuration: Dualstack and custom endpoint are not supported",
            "type": "error"
        },
        {
            "conditions": [],
            "endpoint": {
                "url": {
                    "ref": "Endpoint"
                },
                "properties": {},
                "headers": {}
            },
            "type": "endpoint"
        }
    ]
},
{
    "conditions": [
        {
            "fn": "isSet",
            "argv": [

{
                    "ref": "Region"
                }
            ]
        }
    ],
    "type": "tree",
    "rules": [
        {
            "conditions": [
                {
                    "fn": "aws.partition",
                    "argv": [
                        {
                            "ref": "Region"
                        }
                    ],
                    "assign": "PartitionResult"
                }
            ],
            "type": "tree",
```

```
        "rules": [
                        {
                          "conditions": [
                            {
                              "fn": "booleanEquals",
                              "argv": [
                                {
                                  "ref": "UseFIPS"
                                },
                                true
                              ]
                            },
                            {
                              "fn": "booleanEquals",
                              "argv": [
                                {
                                  "ref": "UseDualStack"

                                },
                                true
                              ]
                            }
                          ],
                          "type": "tree",
                          "rules": [
                            {
                              "conditions": [
                                {
                                  "fn": "booleanEquals",
                                  "argv": [
                                    true,
                                    {
                                      "fn": "getAttr",

"argv": [
                                        {
                                          "ref": "PartitionResult"
                                        },
                                        "supportsFIPS"
                                      ]
                                    }
                                  ]
                                },
                                {
                                  "fn": "booleanEquals",
                                  "argv": [
                                    true,
                                    {
```

```
            "fn": "getAttr",
                                    "argv": [
                                      {
                                        "ref": "PartitionResult"
                                      },
                                      "supportsDualStack"
                                    ]
                                  }
                                ]
                              }
                            ],
                            "type": "tree",
                            "rules": [
                              {

          "conditions": [],
                                    "endpoint": {
                                      "url": "https://license-manager-user-subscriptions-
fips.{Region}.{PartitionResult#dualStackDnsSuffix}",
                                      "properties": {},
                                      "headers": {}
                                    },
                                    "type": "endpoint"
                                  }
                                ]
                              },
                              {
                                "conditions": [],
                                "error": "FIPS and DualStack are enabled, but this partition does not support one or
both",
                                 "type": "error"
                              }
                            ]
                          },
                          {
                            "conditions": [
                              {
                                "fn": "booleanEquals",
                                "argv": [
                                  {
                                    "ref": "UseFIPS"
                                  },
                                  true
                                ]
                              }
                            ],
                            "type": "tree",
```

```
    "rules": [
                {
                  "conditions": [
                    {
                      "fn": "booleanEquals",
                      "argv": [
                        true,
                        {
                          "fn": "getAttr",
                          "argv": [
                            {
                              "ref": "PartitionResult"
                            },
                            "supportsFIPS"

                     ]
                        }
                    ]
                    }
                  ],
                  "type": "tree",
                  "rules": [
                    {
                      "conditions": [],
                      "endpoint": {
                        "url": "https://license-manager-user-subscriptions-
fips.{Region}.{PartitionResult#dnsSuffix}",
                        "properties": {},
                        "headers": {}

        },
                      "type": "endpoint"
                    }
                  ]
                },
                {
                  "conditions": [],
                  "error": "FIPS is enabled but this partition does not support FIPS",
                  "type": "error"
                }
              ]
            },
            {
              "conditions": [
                {
                  "fn": "booleanEquals",
                  "argv": [
```

```
                {
                  "ref": "UseDualStack"
                },
                true
              ]
            }
          ],
          "type": "tree",
          "rules": [
            {
              "conditions": [
                {
                  "fn": "booleanEquals",
                  "argv": [
                    true,
                    {

                      "fn": "getAttr",
                        "argv": [
                          {
                            "ref": "PartitionResult"
                          },
                          "supportsDualStack"
                        ]
                      }
                    ]
                  }
                ],
                "type": "tree",
                "rules": [
                  {

                    "conditions": [],
                    "endpoint": {
                      "url": "https://license-manager-user-
subscriptions.{Region}.{PartitionResult#dualStackDnsSuffix}",
                      "properties": {},
                      "headers": {}
                    },
                    "type": "endpoint"
                  }
                ]
              },
              {
                "conditions": [],
                "error": "DualStack is enabled but this partition does
not support DualStack",
                "type": "error"
```

```
                        }
                    ]
                },
                {
                    "conditions": [],
                    "endpoint": {
                        "url": "https://license-manager-user-
subscriptions.{Region}.{PartitionResult#dnsSuffix}",
                        "properties": {},
                        "headers": {}
                    },
                    "type": "endpoint"
                }
            ]
        }
    ]
},
{
    "conditions":
[],
    "error": "Invalid Configuration: Missing Region",
    "type": "error"
}
]
},
"smithy.rules#endpointTests": {
    "testCases": [
        {
            "documentation": "For region us-east-1 with FIPS enabled and DualStack enabled",
            "expect": {
                "endpoint": {
                    "url": "https://license-manager-user-subscriptions-fips.us-east-1.api.aws"
                }
            },
            "params": {
                "Region": "us-east-1",
                "UseFIPS": true,
                "UseDualStack": true
            }
        },
        {
            "documentation":
"For region us-east-1 with FIPS enabled and DualStack disabled",
            "expect": {
                "endpoint": {
                    "url": "https://license-manager-user-subscriptions-fips.us-east-1.amazonaws.com"
                }
            },
```

```
      "params": {
        "Region": "us-east-1",
        "UseFIPS": true,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region us-east-1 with FIPS disabled and DualStack enabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-user-subscriptions.us-east-1.api.aws"
        }
      },

   "params": {
        "Region": "us-east-1",
        "UseFIPS": false,
        "UseDualStack": true
      }
    },
    {
      "documentation": "For region us-east-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-user-subscriptions.us-east-1.amazonaws.com"
        }
      },
      "params": {
        "Region": "us-east-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region cn-north-1 with
 FIPS enabled and DualStack enabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-user-subscriptions-fips.cn-north-
1.api.amazonwebservices.com.cn"
        }
      },
      "params": {
        "Region": "cn-north-1",
        "UseFIPS": true,
        "UseDualStack": true
      }
    },
```

```
        {
          "documentation": "For region cn-north-1 with FIPS enabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-user-subscriptions-fips.cn-north-1.amazonaws.com.cn"
            }
          },

      "params": {
            "Region": "cn-north-1",
            "UseFIPS": true,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region cn-north-1 with FIPS disabled and DualStack enabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-user-subscriptions.cn-north-1.api.amazonwebservices.com.cn"
            }
          },
          "params": {
            "Region": "cn-north-1",
            "UseFIPS": false,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region cn-north-1
with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-user-subscriptions.cn-north-1.amazonaws.com.cn"
            }
          },
          "params": {
            "Region": "cn-north-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack enabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-user-subscriptions-fips.us-gov-east-1.api.aws"
            }
          },
```

```
      "params": {
                    "Region": "us-gov-east-1",
                    "UseFIPS": true,
                    "UseDualStack": true
                }
            },
            {
                "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack disabled",
                "expect": {
                    "endpoint": {
                        "url": "https://license-manager-user-subscriptions-fips.us-gov-east-1.amazonaws.com"
                    }
                },
                "params": {
                    "Region": "us-gov-east-1",
                    "UseFIPS": true,
                    "UseDualStack": false
                }
            },
            {
                "documentation": "For region us-gov-east-1
with FIPS disabled and DualStack enabled",
                "expect": {
                    "endpoint": {
                        "url": "https://license-manager-user-subscriptions.us-gov-east-1.api.aws"
                    }
                },
                "params": {
                    "Region": "us-gov-east-1",
                    "UseFIPS": false,
                    "UseDualStack": true
                }
            },
            {
                "documentation": "For region us-gov-east-1 with FIPS disabled and DualStack disabled",
                "expect": {
                    "endpoint": {
                        "url": "https://license-manager-user-subscriptions.us-gov-east-1.amazonaws.com"
                    }
                },

    "params": {
                    "Region": "us-gov-east-1",
                    "UseFIPS": false,
                    "UseDualStack": false
                }
            },
```

```
                {
                  "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack enabled",
                  "expect": {
                    "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
                  },
                  "params": {
                    "Region": "us-iso-east-1",
                    "UseFIPS": true,
                    "UseDualStack": true
                  }
                },
                {
                  "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack disabled",
                  "expect":
{
                    "endpoint": {
                      "url": "https://license-manager-user-subscriptions-fips.us-iso-east-1.c2s.ic.gov"
                    }
                  },
                  "params": {
                    "Region": "us-iso-east-1",
                    "UseFIPS": true,
                    "UseDualStack": false
                  }
                },
                {
                  "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack enabled",
                  "expect": {
                    "error": "DualStack is enabled but this partition does not support DualStack"
                  },
                  "params": {
                    "Region": "us-iso-east-1",
                    "UseFIPS": false,
                    "UseDualStack":
true
                  }
                },
                {
                  "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack disabled",
                  "expect": {
                    "endpoint": {
                      "url": "https://license-manager-user-subscriptions.us-iso-east-1.c2s.ic.gov"
                    }
                  },
                  "params": {
                    "Region": "us-iso-east-1",
                    "UseFIPS": false,
                    "UseDualStack": false
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            }
        },
        {
            "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack enabled",
            "expect": {
                "error": "FIPS and DualStack are enabled, but
this partition does not support one or both"
            },
            "params": {
                "Region": "us-isob-east-1",
                "UseFIPS": true,
                "UseDualStack": true
            }
        },
        {
            "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack disabled",
            "expect": {
                "endpoint": {
                    "url": "https://license-manager-user-subscriptions-fips.us-isob-east-1.sc2s.sgov.gov"
                }
            },
            "params": {
                "Region": "us-isob-east-1",
                "UseFIPS": true,
                "UseDualStack": false
            }

    },
        {
            "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack enabled",
            "expect": {
                "error": "DualStack is enabled but this partition does not support DualStack"
            },
            "params": {
                "Region": "us-isob-east-1",
                "UseFIPS": false,
                "UseDualStack": true
            }
        },
        {
            "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack disabled",
            "expect": {
                "endpoint": {
                    "url": "https://license-manager-user-subscriptions.us-isob-east-1.sc2s.sgov.gov"
                }
            },
             "params": {
                "Region": "us-isob-east-1",
```

```
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For custom endpoint with region set and fips disabled and dualstack disabled",
          "expect": {
            "endpoint": {
              "url": "https://example.com"
            }
          },
          "params": {
            "Region": "us-east-1",
            "UseFIPS": false,
            "UseDualStack": false,
            "Endpoint": "https://example.com"
          }
        },
        {

    "documentation": "For custom endpoint with region not set and fips disabled and dualstack disabled",
          "expect": {
            "endpoint": {
              "url": "https://example.com"
            }
          },
          "params": {
            "UseFIPS": false,
            "UseDualStack": false,
            "Endpoint": "https://example.com"
          }
        },
        {
          "documentation": "For custom endpoint with fips enabled and dualstack disabled",
          "expect": {
            "error": "Invalid Configuration: FIPS and custom endpoint are not supported"
          },
          "params": {
            "Region": "us-east-1",
             "UseFIPS": true,
            "UseDualStack": false,
            "Endpoint": "https://example.com"
          }
        },
        {
          "documentation": "For custom endpoint with fips disabled and dualstack enabled",
          "expect": {
            "error": "Invalid Configuration: Dualstack and custom endpoint are not supported"
```

```
            },
            "params": {
              "Region": "us-east-1",
              "UseFIPS": false,
              "UseDualStack": true,
              "Endpoint": "https://example.com"
            }
          },
          {
            "documentation": "Missing region",
            "expect": {
              "error": "Invalid Configuration: Missing Region"
            }
          }
        ],
        "version": "1.0"
      }
    }
  },
  "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProviders": {
    "type": "operation",
    "input": {
      "target": "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProvidersRequest"
    },
    "output": {
      "target": "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProvidersResponse"
    },
    "errors": [
      {
        "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
      },
      {
        "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
      },
      {
        "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
      },
      {
        "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
      },
      {
        "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
      },
      {
        "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
      },
      {
        "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
```

```
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Lists the identity providers for user-based subscriptions.</p>",
            "smithy.api#http": {
              "code": 200,
              "method": "POST",
              "uri": "/identity-provider/ListIdentityProviders"
            },
            "smithy.api#paginated":
{
              "inputToken": "NextToken",
              "outputToken": "NextToken",
              "pageSize": "MaxResults",
              "items": "IdentityProviderSummaries"
            }
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProvidersRequest": {
          "type": "structure",
          "members": {
            "MaxResults": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#BoxInteger",
              "traits": {
                "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
              }
            },
            "NextToken": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
              }
            }
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProvidersResponse":
{
          "type": "structure",
          "members": {
            "IdentityProviderSummaries": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummaryList",
              "traits": {
                "smithy.api#documentation": "<p>Metadata that describes the list identity providers operation.</p>",
                "smithy.api#required": {}
              }
            },
            "NextToken": {
              "target": "smithy.api#String",
```

```
            "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
        }
    }
},
"com.amazonaws.licensemanagerusersubscriptions#ListInstances": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#ListInstancesRequest"
    },
    "output": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#ListInstancesResponse"
    },
    "errors": [
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
        }
    ],
    "traits": {
        "smithy.api#documentation": "<p>Lists the EC2 instances providing user-based subscriptions.</p>",
        "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/instance/ListInstances"
        },
        "smithy.api#paginated": {
            "inputToken": "NextToken",
            "outputToken": "NextToken",
            "pageSize": "MaxResults",
```

```
            "items": "InstanceSummaries"
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListInstancesRequest": {
        "type": "structure",
        "members": {
          "MaxResults": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#BoxInteger",
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          },
          "Filters": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#FilterList",
            "traits": {
              "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those
that match one or\n      more sets of key-value pairs that you specify.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListInstancesResponse": {
        "type":
"structure",
        "members": {
          "InstanceSummaries": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceSummaryList",
            "traits": {
              "smithy.api#documentation": "<p>Metadata that describes the list instances operation.</p>"
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptions": {
        "type": "operation",
```

```
        "input": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptionsRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptionsResponse"
         },
        "errors": [
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
             }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists the user-based subscription products available from an identity
provider.</p>",
            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/user/ListProductSubscriptions"
            },
            "smithy.api#paginated": {
                "inputToken": "NextToken",
                "outputToken": "NextToken",
                "pageSize": "MaxResults",
                "items": "ProductUserSummaries"
            }
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptionsRequest": {
        "type": "structure",
        "members": {
```

```
            "Product": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The name
 of the user-based subscription product.</p>",
                  "smithy.api#required": {}
               }
            },
            "IdentityProvider": {
               "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
               "traits": {
                  "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
                  "smithy.api#required": {}
               }
            },
            "MaxResults": {
               "target": "com.amazonaws.licensemanagerusersubscriptions#BoxInteger",
               "traits": {
                  "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
               }
            },
            "Filters": {
               "target": "com.amazonaws.licensemanagerusersubscriptions#FilterList",
               "traits": {

  "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those that match
 one or\n      more sets of key-value pairs that you specify.</p>"
               }
            },
            "NextToken": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>Token for the next set of results.</p>"
               }
            }
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptionsResponse": {
         "type": "structure",
         "members": {
            "ProductUserSummaries": {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummaryList",
               "traits": {
                  "smithy.api#documentation": "<p>Metadata that describes the list product subscriptions
 operation.</p>"
               }
            },
```

```
        "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociations": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociationsRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociationsResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
          },
          {
            "target":
"com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Lists user associations for an identity provider.</p>",
          "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/user/ListUserAssociations"
          },
          "smithy.api#paginated":
```

```
{
                "inputToken": "NextToken",
                "outputToken": "NextToken",
                "pageSize": "MaxResults",
                "items": "InstanceUserSummaries"
            }
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociationsRequest": {
        "type": "structure",
        "members": {
            "InstanceId": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The ID of the EC2 instance, which provides user-based
subscriptions.</p>",
                    "smithy.api#required": {}
                }
            },
            "IdentityProvider": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
                "traits": {
                    "smithy.api#documentation": "<p>An object that specifies details for the identity
 provider.</p>",
                    "smithy.api#required": {}
                }
            },
            "MaxResults": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#BoxInteger",
                "traits": {
                    "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
                }
            },
            "Filters": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#FilterList",
                "traits": {
                    "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those
that match one or\n      more sets of key-value pairs that you specify.</p>"
                }
            },
            "NextToken": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>Token for
 the next set of results.</p>"
                }
            }
        }
```

```
},
"com.amazonaws.licensemanagerusersubscriptions#ListUserAssociationsResponse": {
    "type": "structure",
    "members": {
        "InstanceUserSummaries": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummaryList",
            "traits": {
                "smithy.api#documentation": "<p>Metadata that describes the list user association operation.</p>"
            }
        },
        "NextToken": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
        }
    }
},
"com.amazonaws.licensemanagerusersubscriptions#ProductUserSummary": {
    "type": "structure",
    "members": {

    "Username": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The user name from the identity provider of the user.</p>",
                "smithy.api#required": {}
            }
        },
        "Product": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
                "smithy.api#required": {}
            }
        },
        "IdentityProvider": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
            "traits": {
                "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
                "smithy.api#required": {}
            }

},
        "Status": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The status of a product for a user.</p>",
```

```
                "smithy.api#required": {}
            }
        },
        "StatusMessage": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The status message for a product for a user.</p>"
            }
        },
        "Domain": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The domain name of the user.</p>"
            }
        },
        "SubscriptionStartDate": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The
start date of a subscription.</p>"
            }
        },
        "SubscriptionEndDate": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The end date of a subscription.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#documentation": "<p>The summary of the user-based subscription products for a user.</p>"
    }
},
"com.amazonaws.licensemanagerusersubscriptions#ProductUserSummaryList": {
    "type": "list",
    "member": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummary"
    }
},
"com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProvider": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProviderRequest"
     },
    "output": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProviderResponse"
    },
    "errors": [
```

```
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
             },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Registers an identity provider for user-based subscriptions.</p>",
            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/identity-provider/RegisterIdentityProvider"
            },
            "smithy.api#idempotent": {}
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProviderRequest": {
        "type": "structure",
        "members": {
            "IdentityProvider": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
                "traits": {
                    "smithy.api#documentation": "<p>An object that specifies details for the identity
provider.</p>",
                    "smithy.api#required": {}
                }
            },
            "Product": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
                    "smithy.api#required": {}
```

```
            }
          },
          "Settings": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#Settings",
            "traits": {
              "smithy.api#documentation": "<p>The registered identity providers product related configuration settings such as the\n      subnets to provision VPC endpoints.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProviderResponse": {
        "type": "structure",
        "members": {
          "IdentityProviderSummary":
 {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary",
            "traits": {
              "smithy.api#documentation": "<p>Metadata that describes the results of an identity provider operation.</p>",
              "smithy.api#required": {}
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException": {
        "type": "structure",
        "members": {
          "message": {
            "target": "smithy.api#String"
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>The resource couldn't be found.</p>",
          "smithy.api#error": "client",
          "smithy.api#httpError": 404
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#SecurityGroup": {
        "type": "string",

    "traits": {
          "smithy.api#length": {
            "min": 5,
            "max": 200
          },
          "smithy.api#pattern": "^sg-(([0-9a-z]{8})|([0-9a-z]{17}))$"
        }
```

```
    },
    "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException": {
      "type": "structure",
      "members": {
        "message": {
          "target": "smithy.api#String"
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>The request failed because a service quota is exceeded.</p>",
        "smithy.api#error": "client"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#Settings": {
      "type": "structure",
      "members": {
        "Subnets": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#Subnets",
          "traits": {
            "smithy.api#documentation":
"<p>The subnets defined for the registered identity provider.</p>",
            "smithy.api#length": {
              "min": 1
            },
            "smithy.api#required": {}
          }
        },
        "SecurityGroupId": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#SecurityGroup",
          "traits": {
            "smithy.api#documentation": "<p>A security group ID that allows inbound TCP port 1688
communication between resources in\n      your VPC and the VPC endpoint for activation servers.</p>",
            "smithy.api#required": {}
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>The registered identity providers product related configuration settings
such as the\n      subnets to provision VPC endpoints, and the security group ID that
 is associated with the VPC\n      endpoints. The security group should permit inbound TCP port 1688
communication from resources\n      in the VPC.</p>"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscription": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscriptionRequest"
      },
```

```
        "output": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscriptionResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
             },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Starts a product subscription for a user with the specified identity
provider.</p>\n        <note>\n            <p>Your estimated bill for charges on the number of users and related costs
will take 48\n        hours to appear for billing periods that haven't closed (marked as <b>Pending</b> billing status)
in Amazon Web Services Billing.
 For more information, see <a
href=\"https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/invoice.html\">Viewing your\n          monthly
charges</a> in the <i>Amazon Web Services Billing User Guide</i>.</p>\n        </note>",
            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/user/StartProductSubscription"
            }
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscriptionRequest": {
        "type": "structure",
        "members": {
            "Username": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The user name from the identity provider of the user.</p>",
```

```
                "smithy.api#required": {}
              }
            },
            "IdentityProvider": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
               "traits": {
                "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
                "smithy.api#required": {}
              }
            },
            "Product": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
                "smithy.api#required": {}
              }
            },
            "Domain": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The domain name of the user.</p>"
              }
            }
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscriptionResponse": {
          "type": "structure",
           "members": {
            "ProductUserSummary": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummary",
              "traits": {
                "smithy.api#documentation": "<p>Metadata that describes the start product subscription
operation.</p>",
                "smithy.api#required": {}
              }
            }
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscription": {
          "type": "operation",
          "input": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscriptionRequest"
          },
          "output": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscriptionResponse"
          },
          "errors": [
            {
```

```
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"

    },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Stops a product subscription for a user with the specified identity
provider.</p>",
        "smithy.api#http": {
          "code": 200,
          "method": "POST",
          "uri": "/user/StopProductSubscription"
        }
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscriptionRequest": {
      "type": "structure",
      "members": {
        "Username": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The user name from the identity provider for the user.</p>",
            "smithy.api#required": {}
          }
        },
        "IdentityProvider": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
          "traits": {
            "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
            "smithy.api#required":
```

```
{}
            }
          },
          "Product": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
              "smithy.api#required": {}
            }
          },
          "Domain": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The domain name of the user.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscriptionResponse": {
        "type": "structure",
        "members": {
          "ProductUserSummary": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummary",
            "traits": {
              "smithy.api#documentation":
"<p>Metadata that describes the start product subscription operation.</p>",
              "smithy.api#required": {}
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#StringList": {
        "type": "list",
        "member": {
          "target": "smithy.api#String"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#Subnet": {
        "type": "string",
        "traits": {
          "smithy.api#pattern": "subnet-[a-z0-9]{8,17}"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#Subnets": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#Subnet"
        }
```

```
    },
    "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException": {
      "type": "structure",
      "members": {
        "message": {

          "target": "smithy.api#String"
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>The request was denied because of request throttling. Retry the
request.</p>",
        "smithy.api#error": "client"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettings": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettingsRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettingsResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Updates additional product configuration settings for the registered
identity\n      provider.</p>",
        "smithy.api#http": {
          "code": 200,
          "method": "POST",
          "uri": "/identity-provider/UpdateIdentityProviderSettings"
        },
        "smithy.api#idempotent": {}
      }
    },
```

```
    "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettingsRequest": {
      "type": "structure",
      "members": {
        "IdentityProvider": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
           "traits": {
            "smithy.api#required": {}
          }
        },
        "Product": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
            "smithy.api#required": {}
          }
        },
        "UpdateSettings": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#UpdateSettings",
          "traits": {
            "smithy.api#documentation": "<p>Updates the registered identity providers product related
configuration settings. You can\n      update any combination of settings in a single operation such as the:</p>\n
<ul>\n          <li>\n              <p>Subnets which you want to add to provision VPC endpoints.</p>\n          </li>\n
        <li>\n              <p>Subnets which you want to remove the VPC endpoints from.</p>\n          </li>\n
<li>\n              <p>Security group ID which permits traffic to the VPC endpoints.</p>\n          </li>\n        </ul>",
            "smithy.api#required": {}
          }
        }
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettingsResponse": {
      "type": "structure",
      "members": {
        "IdentityProviderSummary": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary",
          "traits": {
            "smithy.api#required": {}
          }
        }
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#UpdateSettings": {
      "type": "structure",
      "members": {
        "AddSubnets": {

         "target": "com.amazonaws.licensemanagerusersubscriptions#Subnets",
          "traits": {
            "smithy.api#documentation": "<p>The ID of one or more subnets in which License Manager will
```

```
create a VPC endpoint for products that\n      require connectivity to activation servers.</p>",
                    "smithy.api#required": {}
                }
            },
            "RemoveSubnets": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#Subnets",
                "traits": {
                    "smithy.api#documentation": "<p>The ID of one or more subnets to remove.</p>",
                    "smithy.api#required": {}
                }
            },
            "SecurityGroupId": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#SecurityGroup",
                "traits": {
                    "smithy.api#documentation": "<p>A security group ID
 that allows inbound TCP port 1688 communication between resources in\n      your VPC and the VPC endpoints for
activation servers.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>Updates the registered identity providers product related configuration
settings such as\n      the subnets to provision VPC endpoints.</p>"
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ValidationException": {
        "type": "structure",
        "members": {
            "message": {
                "target": "smithy.api#String"
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>A parameter is not valid.</p>",
            "smithy.api#error": "client"
        }
    }
  }
}
{
  "smithy": "2.0",
  "metadata": {
    "suppressions": [
        {
            "id": "HttpMethodSemantics",
            "namespace": "*"
        },
        {
```

```
            "id": "HttpResponseCodeSemantics",
            "namespace": "*"
        },
        {
            "id": "PaginatedTrait",
            "namespace": "*"
        },
        {
            "id": "HttpHeaderTrait",
            "namespace": "*"
        },
        {
            "id": "HttpUriConflict",
            "namespace": "*"
        },
        {
            "id": "Service",
            "namespace": "*"
        }
    ]
},
"shapes": {
    "com.amazonaws.licensemanager#AWSLicenseManager": {
        "type": "service",
        "version": "2018-08-01",
        "operations": [
            {
                "target": "com.amazonaws.licensemanager#AcceptGrant"
            },

 {
                "target": "com.amazonaws.licensemanager#CheckInLicense"
            },
            {
                "target": "com.amazonaws.licensemanager#CheckoutBorrowLicense"
            },
            {
                "target": "com.amazonaws.licensemanager#CheckoutLicense"
            },
            {
                "target": "com.amazonaws.licensemanager#CreateGrant"
            },
            {
                "target": "com.amazonaws.licensemanager#CreateGrantVersion"
            },
            {
                "target": "com.amazonaws.licensemanager#CreateLicense"
            },
```

```
    {
      "target": "com.amazonaws.licensemanager#CreateLicenseConfiguration"
    },
    {
      "target": "com.amazonaws.licensemanager#CreateLicenseConversionTaskForResource"
    },
    {
      "target": "com.amazonaws.licensemanager#CreateLicenseManagerReportGenerator"
    },
    {
      "target": "com.amazonaws.licensemanager#CreateLicenseVersion"
    },
    {
      "target": "com.amazonaws.licensemanager#CreateToken"
    },
    {
      "target": "com.amazonaws.licensemanager#DeleteGrant"
    },
    {
      "target": "com.amazonaws.licensemanager#DeleteLicense"
    },
    {
      "target": "com.amazonaws.licensemanager#DeleteLicenseConfiguration"
    },
    {
      "target": "com.amazonaws.licensemanager#DeleteLicenseManagerReportGenerator"
    },
    {
      "target": "com.amazonaws.licensemanager#DeleteToken"
    },
    {
      "target": "com.amazonaws.licensemanager#ExtendLicenseConsumption"

  },
    {
      "target": "com.amazonaws.licensemanager#GetAccessToken"
    },
    {
      "target": "com.amazonaws.licensemanager#GetGrant"
    },
    {
      "target": "com.amazonaws.licensemanager#GetLicense"
    },
    {
      "target": "com.amazonaws.licensemanager#GetLicenseConfiguration"
    },
    {
      "target": "com.amazonaws.licensemanager#GetLicenseConversionTask"
```

```
},
{
   "target": "com.amazonaws.licensemanager#GetLicenseManagerReportGenerator"
},
{
   "target": "com.amazonaws.licensemanager#GetLicenseUsage"
},
{
   "target": "com.amazonaws.licensemanager#GetServiceSettings"
},
{
   "target": "com.amazonaws.licensemanager#ListAssociationsForLicenseConfiguration"
 },
{
   "target": "com.amazonaws.licensemanager#ListDistributedGrants"
},
{
   "target": "com.amazonaws.licensemanager#ListFailuresForLicenseConfigurationOperations"
},
{
   "target": "com.amazonaws.licensemanager#ListLicenseConfigurations"
},
{
   "target": "com.amazonaws.licensemanager#ListLicenseConversionTasks"
},
{
   "target": "com.amazonaws.licensemanager#ListLicenseManagerReportGenerators"
},
{
   "target": "com.amazonaws.licensemanager#ListLicenses"
},
{
   "target": "com.amazonaws.licensemanager#ListLicenseSpecificationsForResource"
},
{

  "target": "com.amazonaws.licensemanager#ListLicenseVersions"
},
{
   "target": "com.amazonaws.licensemanager#ListReceivedGrants"
},
{
   "target": "com.amazonaws.licensemanager#ListReceivedGrantsForOrganization"
},
{
   "target": "com.amazonaws.licensemanager#ListReceivedLicenses"
},
{
```

```
        "target": "com.amazonaws.licensemanager#ListReceivedLicensesForOrganization"
      },
      {
        "target": "com.amazonaws.licensemanager#ListResourceInventory"
      },
      {
        "target": "com.amazonaws.licensemanager#ListTagsForResource"
      },
      {
        "target": "com.amazonaws.licensemanager#ListTokens"
      },
      {
        "target": "com.amazonaws.licensemanager#ListUsageForLicenseConfiguration"
       },
      {
        "target": "com.amazonaws.licensemanager#RejectGrant"
      },
      {
        "target": "com.amazonaws.licensemanager#TagResource"
      },
      {
        "target": "com.amazonaws.licensemanager#UntagResource"
      },
      {
        "target": "com.amazonaws.licensemanager#UpdateLicenseConfiguration"
      },
      {
        "target": "com.amazonaws.licensemanager#UpdateLicenseManagerReportGenerator"
      },
      {
        "target": "com.amazonaws.licensemanager#UpdateLicenseSpecificationsForResource"
      },
      {
        "target": "com.amazonaws.licensemanager#UpdateServiceSettings"
      }
    ],
    "traits": {
      "aws.api#service": {
         "sdkId": "License Manager",
        "arnNamespace": "license-manager",
        "cloudFormationName": "LicenseManager",
        "cloudTrailEventSource": "licensemanager.amazonaws.com",
        "endpointPrefix": "license-manager"
      },
      "aws.auth#sigv4": {
        "name": "license-manager"
      },
      "aws.protocols#awsJson1_1": {},
```

```
        "smithy.api#documentation": "<p>License Manager makes it easier to manage licenses from software vendors across multiple \n         Amazon Web Services accounts and on-premises servers.</p>",
        "smithy.api#title": "AWS License Manager",
        "smithy.api#xmlNamespace": {
          "uri": "https://license-manager.amazonaws.com/doc/2018_08_01"
        },
        "smithy.rules#endpointRuleSet": {
          "version": "1.0",
          "parameters": {
            "Region": {
              "builtIn": "AWS::Region",
              "required": false,
              "documentation": "The AWS region used to dispatch the request.",
              "type": "String"
            },
            "UseDualStack": {
              "builtIn": "AWS::UseDualStack",
              "required": true,
              "default": false,
              "documentation": "When true, use the dual-stack endpoint. If the configured endpoint does not support dual-stack, dispatching the request MAY return an error.",
              "type": "Boolean"
            },
            "UseFIPS": {
              "builtIn": "AWS::UseFIPS",
              "required": true,
              "default": false,
              "documentation": "When true, send
 this request to the FIPS-compliant regional endpoint. If the configured endpoint does not have a FIPS compliant endpoint, dispatching the request will return an error.",
              "type": "Boolean"
            },
            "Endpoint": {
              "builtIn": "SDK::Endpoint",
              "required": false,
              "documentation": "Override the endpoint used to send this request",
              "type": "String"
            }
          },
          "rules": [
            {
              "conditions": [
                {
                  "fn": "isSet",
                  "argv": [
                    {
                      "ref": "Endpoint"
                    }
```

```
            ]

        }
        ],
        "type": "tree",
        "rules": [
          {
            "conditions": [
              {
                "fn": "booleanEquals",
                "argv": [
                  {
                    "ref": "UseFIPS"
                  },
                  true
                ]
              }
            ],
            "error": "Invalid Configuration: FIPS and custom endpoint are not supported",
            "type": "error"
          },
          {

"conditions": [
              {
                "fn": "booleanEquals",
                "argv": [
                  {
                    "ref": "UseDualStack"
                  },
                  true
                ]
              }
            ],
            "error": "Invalid Configuration: Dualstack and custom endpoint are not supported",
            "type": "error"
          },
          {
            "conditions": [],
            "endpoint": {
              "url": {
                "ref": "Endpoint"
               },
              "properties": {},
              "headers": {}
            },
            "type": "endpoint"
          }
```

```
      ]
    },
    {
      "conditions": [
        {
          "fn": "isSet",
          "argv": [
            {
              "ref": "Region"
            }
          ]
        }
      ],
      "type": "tree",
      "rules": [
        {
          "conditions": [
            {
              "fn": "aws.partition",
              "argv": [
                {
                  "ref": "Region"
                }
              ],
              "assign": "PartitionResult"
            }
          ],
          "type": "tree",
          "rules": [
            {
              "conditions": [
                {
                  "fn": "booleanEquals",
                  "argv": [
                    {
                      "ref":
"UseFIPS"
                    },
                    true
                  ]
                },
                {
                  "fn": "booleanEquals",
                  "argv": [
                    {
                      "ref": "UseDualStack"
                    },
                    true
```

```
                ]
            }
        ],
        "type": "tree",
        "rules": [
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                "conditions": [
                    {
                        "fn": "booleanEquals",
                        "argv": [
                            true,
                            {
                                "fn": "getAttr",
                                "argv": [
                                    {
                                        "ref": "PartitionResult"
                                    },
                                    "supportsFIPS"
                                ]

                    }
                        ]
                    },
                    {
                        "fn": "booleanEquals",
                        "argv": [
                            true,
                            {
                                "fn": "getAttr",
                                "argv": [
                                    {
                                        "ref": "PartitionResult"
                                    },

    "supportsDualStack"
                                ]
                            }
                        ]
                    }
                ],
                "type": "tree",
                "rules": [
                    {
                        "conditions": [],
                        "endpoint": {
                            "url": "https://license-manager-
fips.{Region}.{PartitionResult#dualStackDnsSuffix}",
                            "properties": {},
```

```
                "headers": {}

            },
                "type": "endpoint"
            }
          ]
        },
        {
          "conditions": [],
          "error": "FIPS and DualStack are enabled, but this partition does not support one or
both",
          "type": "error"
        }
      ]
    },
    {
      "conditions": [
        {
          "fn": "booleanEquals",

       "argv": [
            {
              "ref": "UseFIPS"
            },
            true
          ]
        }
      ],
      "type": "tree",
      "rules": [
        {
          "conditions": [
            {
              "fn": "booleanEquals",
              "argv": [
                true,

  {
                "fn": "getAttr",
                "argv": [
                  {
                    "ref": "PartitionResult"
                  },
                  "supportsFIPS"
                ]
              }
            ]
          }
```

```
                ],
                "type": "tree",
                "rules": [

            {
                    "conditions": [],
                    "endpoint": {
                      "url": "https://license-manager-fips.{Region}.{PartitionResult#dnsSuffix}",
                      "properties": {},
                      "headers": {}
                    },
                    "type": "endpoint"
                  }
                ]
              },
              {
                "conditions": [],
                "error": "FIPS is enabled but this
partition does not support FIPS",
                "type": "error"
              }
            ]
          },
          {
            "conditions": [
              {
                "fn": "booleanEquals",
                "argv": [
                  {
                    "ref": "UseDualStack"
                  },
                  true
                ]
              }
            ],
            "type": "tree",
             "rules": [
              {
                "conditions": [
                  {
                    "fn": "booleanEquals",
                    "argv": [
                      true,
                      {
                        "fn": "getAttr",
                        "argv": [
                          {
                            "ref": "PartitionResult"
```

```
                                        },

    "supportsDualStack"
                                          ]
                                        }
                                      ]
                                    }
                                  ],
                                  "type": "tree",
                                  "rules": [
                                    {
                                      "conditions": [],
                                      "endpoint": {
                                        "url": "https://license-
manager.{Region}.{PartitionResult#dualStackDnsSuffix}",
                                        "properties": {},
                                        "headers": {}

                                    },
                                      "type": "endpoint"
                                    }
                                  ]
                                },
                                {
                                  "conditions": [],
                                  "error": "DualStack is enabled but this partition does not support DualStack",
                                  "type": "error"
                                }
                              ]
                            },
                            {
                              "conditions": [],
                              "endpoint": {
                                "url": "https://license-manager.{Region}.{PartitionResult#dnsSuffix}",
                                 "properties": {},
                                "headers": {}
                              },
                              "type": "endpoint"
                            }
                          ]
                        }
                      ]
                    },
                    {
                      "conditions": [],
                      "error": "Invalid Configuration: Missing Region",
                      "type": "error"
                    }
```

```
        ]
      },
      "smithy.rules#endpointTests": {
        "testCases": [
          {
            "documentation": "For region af-south-1 with FIPS disabled and DualStack disabled",
            "expect": {
              "endpoint":
{
                  "url": "https://license-manager.af-south-1.amazonaws.com"
              }
            },
            "params": {
              "Region": "af-south-1",
              "UseFIPS": false,
              "UseDualStack": false
            }
          },
          {
            "documentation": "For region ap-east-1 with FIPS disabled and DualStack disabled",
            "expect": {
              "endpoint": {
                "url": "https://license-manager.ap-east-1.amazonaws.com"
              }
            },
            "params": {
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              "UseFIPS": false,
              "UseDualStack": false
             }
          },
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            "expect": {
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              "UseDualStack": false
            }
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            "documentation": "For region ap-northeast-2 with FIPS disabled and DualStack disabled",
            "expect": {
              "endpoint": {
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            "url": "https://license-manager.ap-northeast-2.amazonaws.com"
          }
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        "params": {
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          "UseFIPS": false,
          "UseDualStack": false
        }
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      {
        "documentation": "For region ap-northeast-3 with FIPS disabled and DualStack disabled",
        "expect": {
          "endpoint": {
            "url": "https://license-manager.ap-northeast-3.amazonaws.com"
          }
        },
        "params": {
          "Region": "ap-northeast-3",
          "UseFIPS": false,
          "UseDualStack": false
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        "documentation": "For region ap-south-1 with FIPS disabled and DualStack disabled",
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            "url": "https://license-manager.ap-south-1.amazonaws.com"
          }
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        "params": {
          "Region": "ap-south-1",
          "UseFIPS": false,
          "UseDualStack": false
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        "params": {
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          "UseFIPS": false,
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      }
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      "params": {
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        "UseDualStack": false
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      "expect": {
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        }
      },
      "params": {
        "Region": "ap-southeast-3",
        "UseFIPS": false,
        "UseDualStack": false
      }
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        }
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        "UseFIPS": false,
        "UseDualStack": false
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    {
      "documentation": "For region eu-central-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager.eu-central-1.amazonaws.com"
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            }
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          "params": {
            "Region": "eu-central-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
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disabled and DualStack disabled",
          "expect": {
            "endpoint": {
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            }
          },
          "params": {
            "Region": "eu-north-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
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            }
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"eu-south-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
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          "expect": {
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          },
          "params": {
            "Region": "eu-west-1",
            "UseFIPS": false,
            "UseDualStack": false
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      "expect": {

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      "params": {
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        "UseFIPS": false,
        "UseDualStack": false
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        }
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      "params": {
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        "UseFIPS": false,

"UseDualStack": false
      }
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      "expect": {
        "endpoint": {
          "url": "https://license-manager.me-south-1.amazonaws.com"
        }
      },
      "params": {
        "Region": "me-south-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
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      "expect": {
        "endpoint": {
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            }
        },
        "params": {
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            "UseFIPS": false,
            "UseDualStack": false
        }
    },
    {
        "documentation": "For region us-east-1 with FIPS disabled and DualStack disabled",
        "expect": {
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                "url": "https://license-manager.us-east-1.amazonaws.com"
            }
        },
        "params": {
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            "UseFIPS": false,
            "UseDualStack": false
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        "expect": {
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        },
        "params": {
            "Region": "us-east-1",
            "UseFIPS": true,
            "UseDualStack": false
        }
    },
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        "documentation": "For region us-east-2 with FIPS disabled and DualStack disabled",
        "expect": {
            "endpoint": {
                "url": "https://license-manager.us-east-2.amazonaws.com"
            }

     },
        "params": {
            "Region": "us-east-2",
            "UseFIPS": false,
            "UseDualStack": false
        }
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    },
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      "params": {
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        "UseFIPS": true,
        "UseDualStack": false
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us-west-1 with FIPS disabled and DualStack disabled",
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        "UseDualStack": false
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        "UseDualStack": false
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        "UseDualStack": false
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        "UseFIPS": true,
        "UseDualStack": false
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      "expect": {
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        "UseFIPS": true,

        "UseDualStack": true
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        "UseFIPS": false,
        "UseDualStack": true
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"https://license-manager.cn-north-1.amazonaws.com.cn"
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                    "UseFIPS": false,
                    "UseDualStack": false
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                    "UseDualStack": false

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        "UseDualStack": false
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        "UseFIPS": false,
        "UseDualStack": true
      }
    },

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      "expect": {
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        }
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      "params": {
        "Region": "us-gov-east-1",
        "UseFIPS": false,
        "UseDualStack": false
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      "expect": {
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        }
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      "params": {
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        "UseDualStack": false
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                    "UseDualStack": false
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                    "UseDualStack": false
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                    }
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                    "UseDualStack": true
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                    }
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                    "Region": "us-gov-east-1",
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            "UseFIPS": false,
            "UseDualStack": true
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disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager.us-iso-east-1.c2s.ic.gov"
            }
          },
          "params": {
            "Region": "us-iso-east-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
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        {
          "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack enabled",
          "expect": {
            "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
          },
          "params": {
            "Region": "us-iso-east-1",
            "UseFIPS": true,
             "UseDualStack": true
          }
        },
        {
          "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack disabled",
          "expect": {
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              "url": "https://license-manager-fips.us-iso-east-1.c2s.ic.gov"
            }
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          "params": {
            "Region": "us-iso-east-1",
            "UseFIPS": true,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack enabled",
          "expect": {
            "error": "DualStack is enabled
but this partition does not support DualStack"
          },
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      "params": {
        "Region": "us-iso-east-1",
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        "UseDualStack": true
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      "expect": {
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        }
      },
      "params": {
        "Region": "us-isob-east-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },

  {
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        "UseDualStack": true
      }
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        }
      },

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        "UseFIPS": true,
        "UseDualStack": false
      }
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    {
      "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack enabled",
      "expect": {
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            "error": "DualStack is enabled but this partition does not support DualStack"
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          "params": {
            "Region": "us-isob-east-1",
            "UseFIPS": false,
            "UseDualStack": true
          }
        },
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          "documentation": "For custom endpoint with region set and fips disabled and dualstack disabled",

    "expect": {
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            }
          },
          "params": {
            "Region": "us-east-1",
            "UseFIPS": false,
            "UseDualStack": false,
            "Endpoint": "https://example.com"
          }
        },
        {
          "documentation": "For custom endpoint with region not set and fips disabled and dualstack
disabled",
          "expect": {
            "endpoint": {
              "url": "https://example.com"
            }
          },
          "params": {
            "UseFIPS": false,

      "UseDualStack": false,
            "Endpoint": "https://example.com"
          }
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          "documentation": "For custom endpoint with fips enabled and dualstack disabled",
          "expect": {
            "error": "Invalid Configuration: FIPS and custom endpoint are not supported"
          },
          "params": {
            "Region": "us-east-1",
            "UseFIPS": true,
            "UseDualStack": false,
            "Endpoint": "https://example.com"
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                }
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                "expect": {
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"Invalid Configuration: Dualstack and custom endpoint are not supported"
                },
                "params": {
                  "Region": "us-east-1",
                  "UseFIPS": false,
                  "UseDualStack": true,
                  "Endpoint": "https://example.com"
                }
              },
              {
                "documentation": "Missing region",
                "expect": {
                  "error": "Invalid Configuration: Missing Region"
                }
              }
            ],
            "version": "1.0"
          }
        }
      },
      "com.amazonaws.licensemanager#AcceptGrant": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#AcceptGrantRequest"

},
        "output": {
          "target": "com.amazonaws.licensemanager#AcceptGrantResponse"
        },
        "errors": [
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            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
```

```
            {
               "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
               "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
               "target": "com.amazonaws.licensemanager#ValidationException"

   }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Accepts the specified grant.</p>"
         }
      },
      "com.amazonaws.licensemanager#AcceptGrantRequest": {
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         "members": {
            "GrantArn": {
               "target": "com.amazonaws.licensemanager#Arn",
               "traits": {
                  "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the grant.</p>",
                  "smithy.api#required": {}
               }
            }
         },
         "traits": {
            "smithy.api#input": {}
         }
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         "members": {
            "GrantArn": {
               "target": "com.amazonaws.licensemanager#Arn",
               "traits": {
                  "smithy.api#documentation": "<p>Grant
ARN.</p>"
               }
            },
            "Status": {
               "target": "com.amazonaws.licensemanager#GrantStatus",
               "traits": {
                  "smithy.api#documentation": "<p>Grant status.</p>"
               }
            },
            "Version": {
               "target": "com.amazonaws.licensemanager#String",
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```
            "traits": {
              "smithy.api#documentation": "<p>Grant version.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
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      "com.amazonaws.licensemanager#AccessDeniedException": {
        "type": "structure",
        "members": {
          "Message": {
            "target": "com.amazonaws.licensemanager#Message"
          }
        },
        "traits": {
          "aws.protocols#awsQueryError": {

"code": "ServiceAccessDenied",
            "httpResponseCode": 401
          },
          "smithy.api#documentation": "<p>Access to resource denied.</p>",
          "smithy.api#error": "client",
          "smithy.api#httpError": 401
        }
      },
      "com.amazonaws.licensemanager#ActivationOverrideBehavior": {
        "type": "enum",
        "members": {
          "DISTRIBUTED_GRANTS_ONLY": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "DISTRIBUTED_GRANTS_ONLY"
            }
          },
          "ALL_GRANTS_PERMITTED_BY_ISSUER": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "ALL_GRANTS_PERMITTED_BY_ISSUER"
            }
          }
        }
      },
      "com.amazonaws.licensemanager#AllowedOperation": {

     "type": "enum",
        "members": {
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            "CREATE_GRANT": {
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              "traits": {
                "smithy.api#enumValue": "CreateGrant"
              }
            },
            "CHECKOUT_LICENSE": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "CheckoutLicense"
              }
            },
            "CHECKOUT_BORROW_LICENSE": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "CheckoutBorrowLicense"
              }
            },
            "CHECK_IN_LICENSE": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "CheckInLicense"
              }
            },
            "EXTEND_CONSUMPTION_LICENSE":
{
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "ExtendConsumptionLicense"
              }
            },
            "LIST_PURCHASED_LICENSES": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "ListPurchasedLicenses"
              }
            },
            "CREATE_TOKEN": {
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              "traits": {
                "smithy.api#enumValue": "CreateToken"
              }
            }
          }
        },
        "com.amazonaws.licensemanager#AllowedOperationList": {
          "type": "list",
          "member": {
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            "target": "com.amazonaws.licensemanager#AllowedOperation"
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          "traits": {
            "smithy.api#length": {
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              "max":
7
            }
          }
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        "com.amazonaws.licensemanager#Arn": {
          "type": "string",
          "traits": {
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              "min": 0,
              "max": 2048
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            "smithy.api#pattern": "^arn:aws(-(cn|us-gov|iso-b|iso-c|iso-d))?:[A-Za-z0-9][A-Za-z0-9_/.-]{0,62}:[A-Za-
z0-9_/.-]{0,63}:[A-Za-z0-9_/.-]{0,63}:[A-Za-z0-9][A-Za-z0-9:_/+=,@.-]{0,1023}$"
          }
        },
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          "member": {
            "target": "com.amazonaws.licensemanager#Arn"
          }
        },
        "com.amazonaws.licensemanager#AuthorizationException": {
          "type": "structure",
          "members": {
            "Message": {
              "target": "com.amazonaws.licensemanager#Message"
            }
          },
          "traits": {
            "aws.protocols#awsQueryError":
{
              "code": "AuthorizationFailure",
              "httpResponseCode": 403
            },
            "smithy.api#documentation": "<p>The Amazon Web Services user account does not have permission to
perform the action. Check the IAM\n          policy associated with this account.</p>",
            "smithy.api#error": "client",
            "smithy.api#httpError": 403
          }
        },
        "com.amazonaws.licensemanager#AutomatedDiscoveryInformation": {
          "type": "structure",
```

```
        "members": {
          "LastRunTime": {
            "target": "com.amazonaws.licensemanager#DateTime",
            "traits": {
              "smithy.api#documentation": "<p>Time that automated discovery last ran.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Describes automated discovery.</p>"
        }
      },

    "com.amazonaws.licensemanager#Boolean": {
        "type": "boolean",
        "traits": {
          "smithy.api#default": false
        }
      },
      "com.amazonaws.licensemanager#BorrowConfiguration": {
        "type": "structure",
        "members": {
          "AllowEarlyCheckIn": {
            "target": "com.amazonaws.licensemanager#BoxBoolean",
            "traits": {
              "smithy.api#documentation": "<p>Indicates whether early check-ins are allowed.</p>",
              "smithy.api#required": {}
            }
          },
          "MaxTimeToLiveInMinutes": {
            "target": "com.amazonaws.licensemanager#BoxInteger",
            "traits": {
              "smithy.api#documentation": "<p>Maximum time for the borrow configuration, in minutes.</p>",
              "smithy.api#required": {}
            }
          }

    },
        "traits": {
          "smithy.api#documentation": "<p>Details about a borrow configuration.</p>"
        }
      },
      "com.amazonaws.licensemanager#BoxBoolean": {
        "type": "boolean"
      },
      "com.amazonaws.licensemanager#BoxInteger": {
        "type": "integer"
      },
```

```
    "com.amazonaws.licensemanager#BoxLong": {
      "type": "long"
    },
    "com.amazonaws.licensemanager#CheckInLicense": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#CheckInLicenseRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#CheckInLicenseResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"

    },
        {
          "target": "com.amazonaws.licensemanager#ConflictException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
          "target": "com.amazonaws.licensemanager#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Checks in the specified license. Check in a license when it is no longer
in use.</p>"
      }
    },
    "com.amazonaws.licensemanager#CheckInLicenseRequest":
{
      "type": "structure",
      "members": {
        "LicenseConsumptionToken": {
```

```
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>License consumption token.</p>",
              "smithy.api#required": {}
            }
          },
          "Beneficiary": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>License beneficiary.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#CheckInLicenseResponse": {
        "type": "structure",
        "members": {},
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#CheckoutBorrowLicense":
{
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#CheckoutBorrowLicenseRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#CheckoutBorrowLicenseResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#EntitlementNotAllowedException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {
            "target": "com.amazonaws.licensemanager#NoEntitlementsAllowedException"
```

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            },
            {
               "target":
 "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
               "target": "com.amazonaws.licensemanager#RedirectException"
            },
            {
               "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
            },
            {
               "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
               "target": "com.amazonaws.licensemanager#UnsupportedDigitalSignatureMethodException"
            },
            {
               "target": "com.amazonaws.licensemanager#ValidationException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Checks out the specified license for offline use.</p>"
         }
      },
      "com.amazonaws.licensemanager#CheckoutBorrowLicenseRequest": {
         "type": "structure",
         "members":
 {
            "LicenseArn": {
               "target": "com.amazonaws.licensemanager#Arn",
               "traits": {
                  "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license. The license must
 use the borrow consumption configuration.</p>",
                  "smithy.api#required": {}
               }
            },
            "Entitlements": {
               "target": "com.amazonaws.licensemanager#EntitlementDataList",
               "traits": {
                  "smithy.api#documentation": "<p>License entitlements. Partial checkouts are not supported.</p>",
                  "smithy.api#required": {}
               }
            },
            "DigitalSignatureMethod": {
               "target": "com.amazonaws.licensemanager#DigitalSignatureMethod",
               "traits": {
                  "smithy.api#documentation": "<p>Digital signature method. The possible
```

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value is JSON Web Signature (JWS) algorithm PS384.\n          For more information, see <a
href=\"https://tools.ietf.org/html/rfc7518#section-3.5\">RFC 7518 Digital Signature with RSASSA-PSS</a>.</p>",
                    "smithy.api#required": {}
                }
            },
            "NodeId": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Node ID.</p>"
                }
            },
            "CheckoutMetadata": {
                "target": "com.amazonaws.licensemanager#MetadataList",
                "traits": {
                    "smithy.api#documentation": "<p>Information about constraints.</p>"
                }
            },
            "ClientToken": {
                "target": "com.amazonaws.licensemanager#ClientToken",
                "traits": {
                    "smithy.api#documentation":
"<p>Unique, case-sensitive identifier that you provide to ensure the idempotency of the request.</p>",
                    "smithy.api#required": {}
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#CheckoutBorrowLicenseResponse": {
        "type": "structure",
        "members": {
            "LicenseArn": {
                "target": "com.amazonaws.licensemanager#Arn",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>"
                }
            },
            "LicenseConsumptionToken": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>License consumption token.</p>"
                }
            },
            "EntitlementsAllowed":
{
                "target": "com.amazonaws.licensemanager#EntitlementDataList",
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            "traits": {
              "smithy.api#documentation": "<p>Allowed license entitlements.</p>"
            }
          },
          "NodeId": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Node ID.</p>"
            }
          },
          "SignedToken": {
            "target": "com.amazonaws.licensemanager#SignedToken",
            "traits": {
              "smithy.api#documentation": "<p>Signed token.</p>"
            }
          },
          "IssuedAt": {
            "target": "com.amazonaws.licensemanager#ISO8601DateTime",
            "traits": {
              "smithy.api#documentation": "<p>Date and time at which the license checkout
is issued.</p>"
            }
          },
          "Expiration": {
            "target": "com.amazonaws.licensemanager#ISO8601DateTime",
            "traits": {
              "smithy.api#documentation": "<p>Date and time at which the license checkout expires.</p>"
            }
          },
          "CheckoutMetadata": {
            "target": "com.amazonaws.licensemanager#MetadataList",
            "traits": {
              "smithy.api#documentation": "<p>Information about constraints.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#CheckoutLicense": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#CheckoutLicenseRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#CheckoutLicenseResponse"
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        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {
            "target": "com.amazonaws.licensemanager#NoEntitlementsAllowedException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#RedirectException"
          },
          {
            "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
          },
          {
            "target":
 "com.amazonaws.licensemanager#ServerInternalException"
          },
          {
            "target": "com.amazonaws.licensemanager#UnsupportedDigitalSignatureMethodException"
          },
          {
            "target": "com.amazonaws.licensemanager#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Checks out the specified license.</p>\n        <note>\n          <p>If the
 account that created the license is the same that is performing the check out, you must\n          specify the account
 as the beneficiary.</p>\n        </note>"
        }
      },
      "com.amazonaws.licensemanager#CheckoutLicenseRequest": {
        "type": "structure",
        "members": {
          "ProductSKU": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Product
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SKU.</p>",
                    "smithy.api#required": {}
                }
            },
            "CheckoutType": {
                "target": "com.amazonaws.licensemanager#CheckoutType",
                "traits": {
                    "smithy.api#documentation": "<p>Checkout type.</p>",
                    "smithy.api#required": {}
                }
            },
            "KeyFingerprint": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Key fingerprint identifying the license.</p>",
                    "smithy.api#required": {}
                }
            },
            "Entitlements": {
                "target": "com.amazonaws.licensemanager#EntitlementDataList",
                "traits": {
                    "smithy.api#documentation": "<p>License entitlements.</p>",

        "smithy.api#required": {}
                }
            },
            "ClientToken": {
                "target": "com.amazonaws.licensemanager#ClientToken",
                "traits": {
                    "smithy.api#documentation": "<p>Unique, case-sensitive identifier that you provide to ensure the
idempotency of the request.</p>",
                    "smithy.api#required": {}
                }
            },
            "Beneficiary": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>License beneficiary.</p>"
                }
            },
            "NodeId": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Node ID.</p>"
                }
            }
        },
        "traits": {
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    "smithy.api#input": {}
    }
},
"com.amazonaws.licensemanager#CheckoutLicenseResponse": {
    "type": "structure",
    "members": {
        "CheckoutType": {
            "target": "com.amazonaws.licensemanager#CheckoutType",
            "traits": {
                "smithy.api#documentation": "<p>Checkout type.</p>"
            }
        },
        "LicenseConsumptionToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>License consumption token.</p>"
            }
        },
        "EntitlementsAllowed": {
            "target": "com.amazonaws.licensemanager#EntitlementDataList",
            "traits": {
                "smithy.api#documentation": "<p>Allowed license entitlements.</p>"
            }
        },
        "SignedToken": {
            "target": "com.amazonaws.licensemanager#SignedToken",
            "traits": {
                "smithy.api#documentation": "<p>Signed token.</p>"
            }
        },
        "NodeId": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Node ID.</p>"
            }
        },
        "IssuedAt": {
            "target": "com.amazonaws.licensemanager#ISO8601DateTime",
            "traits": {
                "smithy.api#documentation": "<p>Date and time at which the license checkout is issued.</p>"
            }
        },
        "Expiration": {
            "target": "com.amazonaws.licensemanager#ISO8601DateTime",
            "traits": {
                "smithy.api#documentation": "<p>Date and
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time at which the license checkout expires.</p>"
                }
            },
            "LicenseArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the checkout license.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#CheckoutType": {
        "type": "enum",
        "members": {
            "PROVISIONAL": {
                "target": "smithy.api#Unit",
                "traits": {
                    "smithy.api#enumValue": "PROVISIONAL"
                }
            },
            "PERPETUAL": {
                "target": "smithy.api#Unit",
                "traits": {
                    "smithy.api#enumValue": "PERPETUAL"
                }
             }
        }
    },
    "com.amazonaws.licensemanager#ClientRequestToken": {
        "type": "string",
        "traits": {
            "smithy.api#length": {
                "min": 1,
                "max": 36
            }
        }
    },
    "com.amazonaws.licensemanager#ClientToken": {
        "type": "string",
        "traits": {
            "smithy.api#length": {
                "min": 0,
                "max": 2048
            },
            "smithy.api#pattern": "^\\S+$"
```

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        }
      },
      "com.amazonaws.licensemanager#ConflictException": {
        "type": "structure",
        "members": {
          "Message": {
            "target": "com.amazonaws.licensemanager#Message"
          }
        },
        "traits": {
          "aws.protocols#awsQueryError": {
            "code": "ConflictException",
            "httpResponseCode":
 409
          },
          "smithy.api#documentation": "<p>There was a conflict processing the request. Try your request
 again.</p>",
          "smithy.api#error": "client",
          "smithy.api#httpError": 409
        }
      },
      "com.amazonaws.licensemanager#ConsumedLicenseSummary": {
        "type": "structure",
        "members": {
          "ResourceType": {
            "target": "com.amazonaws.licensemanager#ResourceType",
            "traits": {
              "smithy.api#documentation": "<p>Resource type of the resource consuming a license.</p>"
            }
          },
          "ConsumedLicenses": {
            "target": "com.amazonaws.licensemanager#BoxLong",
            "traits": {
              "smithy.api#documentation": "<p>Number of licenses consumed by the resource.</p>"
            }
          }
        },

       "traits": {
          "smithy.api#documentation": "<p>Details about license consumption.</p>"
        }
      },
      "com.amazonaws.licensemanager#ConsumedLicenseSummaryList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#ConsumedLicenseSummary"
        }
      },
```

```
    "com.amazonaws.licensemanager#ConsumptionConfiguration": {
      "type": "structure",
      "members": {
        "RenewType": {
          "target": "com.amazonaws.licensemanager#RenewType",
          "traits": {
            "smithy.api#documentation": "<p>Renewal frequency.</p>"
          }
        },
        "ProvisionalConfiguration": {
          "target": "com.amazonaws.licensemanager#ProvisionalConfiguration",
          "traits": {
            "smithy.api#documentation": "<p>Details about a provisional configuration.</p>"
           }
        },
        "BorrowConfiguration": {
          "target": "com.amazonaws.licensemanager#BorrowConfiguration",
          "traits": {
            "smithy.api#documentation": "<p>Details about a borrow configuration.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>Details about a consumption configuration.</p>"
      }
    },
    "com.amazonaws.licensemanager#CreateGrant": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#CreateGrantRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#CreateGrantResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target":
"com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
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            {
                "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Creates a grant for the specified license. A grant shares the use of license\n          entitlements with a specific Amazon Web Services account, an organization, or an\n          organizational unit (OU). For more
 information, see <a href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/granted-licenses.html\">Granted licenses in License Manager</a> in the <i>License Manager User Guide</i>.</p>"
        }
    },
    "com.amazonaws.licensemanager#CreateGrantRequest": {
        "type": "structure",
        "members": {
            "ClientToken": {
                "target": "com.amazonaws.licensemanager#ClientToken",
                "traits": {
                    "smithy.api#documentation": "<p>Unique, case-sensitive identifier that you provide to ensure the idempotency of the request.</p>",
                    "smithy.api#required": {}
                }
            },
            "GrantName": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Grant name.</p>",
                    "smithy.api#required": {}

}
            },
            "LicenseArn": {
                "target": "com.amazonaws.licensemanager#Arn",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>",
                    "smithy.api#required": {}
                }
            },
            "Principals": {
                "target": "com.amazonaws.licensemanager#PrincipalArnList",
                "traits": {
                    "smithy.api#documentation": "<p>The grant principals. You can specify one of the following as an
```

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Amazon Resource Name\n (ARN):</p>\n <ul>\n <li>\n <p>An Amazon Web Services account, which includes only the account specified.</p>\n </li>\n </ul>\n <ul>\n <li>\n <p>An organizational unit (OU), which includes all accounts in the OU.</p>\n </li>\n </ul>\n <ul>\n <li>\n <p>An organization, which will include all accounts across your organization.</p>\n </li>\n </ul>",
                    "smithy.api#required": {}
                }
            },
            "HomeRegion": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Home Region of the grant.</p>",
                    "smithy.api#required": {}
                }
            },
            "AllowedOperations": {
                "target": "com.amazonaws.licensemanager#AllowedOperationList",
                "traits": {
                    "smithy.api#documentation": "<p>Allowed operations for the grant.</p>",
                    "smithy.api#required": {}
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },

    "com.amazonaws.licensemanager#CreateGrantResponse": {
        "type": "structure",
        "members": {
            "GrantArn": {
                "target": "com.amazonaws.licensemanager#Arn",
                "traits": {
                    "smithy.api#documentation": "<p>Grant ARN.</p>"
                }
            },
            "Status": {
                "target": "com.amazonaws.licensemanager#GrantStatus",
                "traits": {
                    "smithy.api#documentation": "<p>Grant status.</p>"
                }
            },
            "Version": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Grant version.</p>"
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                }
            }
        },
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#CreateGrantVersion":
{
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#CreateGrantVersionRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#CreateGrantVersionResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
             },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Creates a new version of the specified grant. For more information,
see\n        <a href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/granted-
licenses.html\">Granted licenses in License Manager</a> in the <i>License Manager User Guide</i>.</p>"
        }
    },
    "com.amazonaws.licensemanager#CreateGrantVersionRequest": {
        "type": "structure",
        "members": {
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            "ClientToken": {
               "target": "com.amazonaws.licensemanager#ClientToken",
               "traits": {
                  "smithy.api#documentation": "<p>Unique, case-sensitive identifier that you provide to ensure the
idempotency of the request.</p>",

   "smithy.api#required": {}
               }
            },
            "GrantArn": {
               "target": "com.amazonaws.licensemanager#Arn",
               "traits": {
                  "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the grant.</p>",
                  "smithy.api#required": {}
               }
            },
            "GrantName": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Grant name.</p>"
               }
            },
            "AllowedOperations": {
               "target": "com.amazonaws.licensemanager#AllowedOperationList",
               "traits": {
                  "smithy.api#documentation": "<p>Allowed operations for the grant.</p>"
               }
            },
            "Status": {
               "target": "com.amazonaws.licensemanager#GrantStatus",
                "traits": {
                  "smithy.api#documentation": "<p>Grant status.</p>"
               }
            },
            "StatusReason": {
               "target": "com.amazonaws.licensemanager#StatusReasonMessage",
               "traits": {
                  "smithy.api#documentation": "<p>Grant status reason.</p>"
               }
            },
            "SourceVersion": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Current version of the grant.</p>"
               }
            },
            "Options": {
               "target": "com.amazonaws.licensemanager#Options",
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```
            "traits": {
                "smithy.api#documentation": "<p>The options specified for the grant.</p>"
            }
          }
        },
         "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#CreateGrantVersionResponse": {
        "type": "structure",
        "members": {
          "GrantArn": {
            "target": "com.amazonaws.licensemanager#Arn",
            "traits": {
              "smithy.api#documentation": "<p>Grant ARN.</p>"
            }
          },
          "Status": {
            "target": "com.amazonaws.licensemanager#GrantStatus",
            "traits": {
              "smithy.api#documentation": "<p>Grant status.</p>"
            }
          },
          "Version": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>New version of the grant.</p>"
            }
          }
        },
        "traits":
{
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#CreateLicense": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#CreateLicenseRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#CreateLicenseResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
```

```
        {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
            "target": "com.amazonaws.licensemanager#RedirectException"
         },
        {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
            "target": "com.amazonaws.licensemanager#ValidationException"
        }
    ],
    "traits": {
        "smithy.api#documentation": "<p>Creates a license.</p>"
    }
},
"com.amazonaws.licensemanager#CreateLicenseConfiguration": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanager#CreateLicenseConfigurationRequest"
    },
    "output": {
        "target": "com.amazonaws.licensemanager#CreateLicenseConfigurationResponse"
    },
    "errors": [
        {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
         },
        {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
            "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
        },
        {
```

```
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Creates a license configuration.</p>\n        <p>A license configuration is an abstraction of a customer license agreement that can be\n        consumed and enforced by License Manager. Components include specifications for the license\n        type (licensing by instance, socket, CPU, or vCPU), allowed tenancy (shared tenancy, \n        Dedicated Instance, Dedicated Host, or\n all of these), license affinity  to host (how long a \n        license must be associated with a host), and the number of licenses purchased and used.</p>"
        }
      },
      "com.amazonaws.licensemanager#CreateLicenseConfigurationRequest": {
        "type": "structure",
        "members": {
          "Name": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Name of the license configuration.</p>",
              "smithy.api#required": {}
            }
          },
          "Description": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Description of the license configuration.</p>"
            }
          },
          "LicenseCountingType": {
            "target": "com.amazonaws.licensemanager#LicenseCountingType",
             "traits": {
              "smithy.api#documentation": "<p>Dimension used to track the license inventory.</p>",
              "smithy.api#required": {}
            }
          },
          "LicenseCount": {
            "target": "com.amazonaws.licensemanager#BoxLong",
            "traits": {
              "smithy.api#documentation": "<p>Number of licenses managed by the license configuration.</p>"
            }
          },
          "LicenseCountHardLimit": {
            "target": "com.amazonaws.licensemanager#BoxBoolean",
            "traits": {
              "smithy.api#documentation": "<p>Indicates whether hard or soft license enforcement is used. Exceeding a hard limit\n        blocks the launch of new instances.</p>"
            }
          },
```

```
            "LicenseRules": {
               "target":
 "com.amazonaws.licensemanager#StringList",
               "traits": {
                  "smithy.api#documentation": "<p>License rules. The syntax is #name=value (for example,
#allowedTenancy=EC2-DedicatedHost). The available rules \n         vary by dimension, as follows.</p>\n
<ul>\n           <li>\n              <p>\n                 <code>Cores</code> dimension: <code>allowedTenancy</code> |\n
          <code>licenseAffinityToHost</code> |\n              <code>maximumCores</code> |
<code>minimumCores</code>\n              </p>\n           </li>\n           <li>\n              <p>\n
<code>Instances</code> dimension: <code>allowedTenancy</code> | \n              <code>maximumCores</code> |
<code>minimumCores</code> |\n              <code>maximumSockets</code> | <code>minimumSockets</code> |\n
         <code>maximumVcpus</code> | <code>minimumVcpus</code>\n              </p>\n           </li>\n
<li>\n
  <p>\n              <code>Sockets</code> dimension: <code>allowedTenancy</code> | \n
<code>licenseAffinityToHost</code> |\n              <code>maximumSockets</code> |
<code>minimumSockets</code>\n              </p>\n           </li>\n           <li>\n              <p>\n
<code>vCPUs</code> dimension: <code>allowedTenancy</code> | \n
<code>honorVcpuOptimization</code> | \n              <code>maximumVcpus</code> |
<code>minimumVcpus</code>\n              </p>\n           </li>\n        </ul>\n        <p>The unit for
<code>licenseAffinityToHost</code> is days and the range is 1 to 180. The possible \n         values for
<code>allowedTenancy</code> are <code>EC2-Default</code>, <code>EC2-DedicatedHost</code>, and \n
<code>EC2-DedicatedInstance</code>. The possible values for <code>honorVcpuOptimization</code> are \n
<code>True</code> and <code>False</code>.</p>"
               }
            },

   "Tags": {
               "target": "com.amazonaws.licensemanager#TagList",
               "traits": {
                  "smithy.api#documentation": "<p>Tags to add to the license configuration.</p>"
               }
            },
            "DisassociateWhenNotFound": {
               "target": "com.amazonaws.licensemanager#BoxBoolean",
               "traits": {
                  "smithy.api#documentation": "<p>When true, disassociates a resource when software is
uninstalled.</p>"
               }
            },
            "ProductInformationList": {
               "target": "com.amazonaws.licensemanager#ProductInformationList",
               "traits": {
                  "smithy.api#documentation": "<p>Product information.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#input": {}
```

```
        }
      },
      "com.amazonaws.licensemanager#CreateLicenseConfigurationResponse":
{
        "type": "structure",
        "members": {
          "LicenseConfigurationArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license configuration.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#CreateLicenseConversionTaskForResource": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#CreateLicenseConversionTaskForResourceRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#CreateLicenseConversionTaskForResourceResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
           },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          },
          {
            "target": "com.amazonaws.licensemanager#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Creates a new license conversion task.</p>"
        }
```

```
    },
    "com.amazonaws.licensemanager#CreateLicenseConversionTaskForResourceRequest": {
      "type": "structure",
      "members": {
        "ResourceArn": {

          "target": "com.amazonaws.licensemanager#Arn",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the resource you are converting
the license type for.</p>",
            "smithy.api#required": {}
          }
        },
        "SourceLicenseContext": {
          "target": "com.amazonaws.licensemanager#LicenseConversionContext",
          "traits": {
            "smithy.api#documentation": "<p>Information that identifies the license type you are converting
from. \n\n  For the structure of the source license, see <a href=\"https://docs.aws.amazon.com/license-
manager/latest/userguide/conversion-procedures.html#conversion-cli\">Convert a license type using the CLI </a> in
the <i>License Manager User Guide</i>.</p>",
            "smithy.api#required": {}
          }
        },
        "DestinationLicenseContext":
{
          "target": "com.amazonaws.licensemanager#LicenseConversionContext",
          "traits": {
            "smithy.api#documentation": "<p>Information that identifies the license type you are converting to.
For the structure of the destination license, see <a href=\"https://docs.aws.amazon.com/license-
manager/latest/userguide/conversion-procedures.html#conversion-cli\">Convert a license type using the CLI </a> in
the <i>License Manager User Guide</i>.</p>",
            "smithy.api#required": {}
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#CreateLicenseConversionTaskForResourceResponse": {
      "type": "structure",
      "members": {
        "LicenseConversionTaskId": {
          "target": "com.amazonaws.licensemanager#LicenseConversionTaskId",

       "traits": {
            "smithy.api#documentation": "<p>The ID of the created license type conversion task.</p>"
          }
```

```
        }
      },
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanager#CreateLicenseManagerReportGenerator": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#CreateLicenseManagerReportGeneratorRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#CreateLicenseManagerReportGeneratorResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
         },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
          "target": "com.amazonaws.licensemanager#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Creates a report generator.</p>"
      }
    },
    "com.amazonaws.licensemanager#CreateLicenseManagerReportGeneratorRequest": {
      "type": "structure",
      "members": {
        "ReportGeneratorName":
```

```
{
            "target": "com.amazonaws.licensemanager#ReportGeneratorName",
            "traits": {
              "smithy.api#documentation": "<p>Name of the report generator.</p>",
              "smithy.api#required": {}
            }
          },
          "Type": {
            "target": "com.amazonaws.licensemanager#ReportTypeList",
            "traits": {
              "smithy.api#documentation": "<p>Type of reports to generate. The following report types an be generated:</p>\n <ul>\n <li>\n <p>License configuration report - Reports the number and details of consumed licenses for a license configuration.</p>\n </li>\n <li>\n <p>Resource report - Reports the tracked licenses and resource consumption for a license configuration.</p>\n </li>\n </ul>",
              "smithy.api#required": {}

    }
          },
          "ReportContext": {
            "target": "com.amazonaws.licensemanager#ReportContext",
            "traits": {
              "smithy.api#documentation": "<p>Defines the type of license configuration the report generator tracks.</p>",
              "smithy.api#required": {}
            }
          },
          "ReportFrequency": {
            "target": "com.amazonaws.licensemanager#ReportFrequency",
            "traits": {
              "smithy.api#documentation": "<p>Frequency by which reports are generated.  Reports can be generated daily, monthly, or weekly.</p>",
              "smithy.api#required": {}
            }
          },
          "ClientToken": {
            "target": "com.amazonaws.licensemanager#ClientRequestToken",
            "traits": {
              "smithy.api#documentation": "<p>Unique,
 case-sensitive identifier that you provide to ensure the idempotency of the request.</p>",
              "smithy.api#required": {}
            }
          },
          "Description": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Description of the report generator.</p>"
            }
```

```
            },
            "Tags": {
                "target": "com.amazonaws.licensemanager#TagList",
                "traits": {
                    "smithy.api#documentation": "<p>Tags to add to the report generator.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#CreateLicenseManagerReportGeneratorResponse": {
        "type": "structure",
        "members": {
            "LicenseManagerReportGeneratorArn":
{
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the new report
generator.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#CreateLicenseRequest": {
        "type": "structure",
        "members": {
            "LicenseName": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>License name.</p>",
                    "smithy.api#required": {}
                }
            },
            "ProductName": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Product
 name.</p>",
                    "smithy.api#required": {}
                }
            },
            "ProductSKU": {
                "target": "com.amazonaws.licensemanager#String",
```

```
            "traits": {
                "smithy.api#documentation": "<p>Product SKU.</p>",
                "smithy.api#required": {}
            }
        },
        "Issuer": {
            "target": "com.amazonaws.licensemanager#Issuer",
            "traits": {
                "smithy.api#documentation": "<p>License issuer.</p>",
                "smithy.api#required": {}
            }
        },
        "HomeRegion": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Home Region for the license.</p>",
                "smithy.api#required": {}

    }
        },
        "Validity": {
            "target": "com.amazonaws.licensemanager#DatetimeRange",
            "traits": {
                "smithy.api#documentation": "<p>Date and time range during which the license is valid, in ISO8601-
UTC format.</p>",
                "smithy.api#required": {}
            }
        },
        "Entitlements": {
            "target": "com.amazonaws.licensemanager#EntitlementList",
            "traits": {
                "smithy.api#documentation": "<p>License entitlements.</p>",
                "smithy.api#required": {}
            }
        },
        "Beneficiary": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>License beneficiary.</p>",
                "smithy.api#required": {}
            }
         },
        "ConsumptionConfiguration": {
            "target": "com.amazonaws.licensemanager#ConsumptionConfiguration",
            "traits": {
                "smithy.api#documentation": "<p>Configuration for consumption of the license. Choose a provisional
configuration for workloads\n          running with continuous connectivity. Choose a borrow configuration for
workloads with offline\n          usage.</p>",
```

```
            "smithy.api#required": {}
          }
        },
        "LicenseMetadata": {
          "target": "com.amazonaws.licensemanager#MetadataList",
          "traits": {
            "smithy.api#documentation": "<p>Information about the license.</p>"
          }
        },
        "ClientToken": {
          "target": "com.amazonaws.licensemanager#ClientToken",
          "traits": {
            "smithy.api#documentation":
"<p>Unique, case-sensitive identifier that you provide to ensure the idempotency of the request.</p>",
            "smithy.api#required": {}
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#CreateLicenseResponse": {
      "type": "structure",
      "members": {
        "LicenseArn": {
          "target": "com.amazonaws.licensemanager#Arn",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>"
          }
        },
        "Status": {
          "target": "com.amazonaws.licensemanager#LicenseStatus",
          "traits": {
            "smithy.api#documentation": "<p>License status.</p>"
          }
        },
        "Version": {
           "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>License version.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#output": {}
      }
    },
```

```
    "com.amazonaws.licensemanager#CreateLicenseVersion": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#CreateLicenseVersionRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#CreateLicenseVersionResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#ConflictException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#RedirectException"
        },
        {
          "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
          "target": "com.amazonaws.licensemanager#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Creates a new version of the specified license.</p>"
      }
    },
    "com.amazonaws.licensemanager#CreateLicenseVersionRequest": {
      "type": "structure",
      "members": {
        "LicenseArn": {
          "target":
"com.amazonaws.licensemanager#Arn",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>",
            "smithy.api#required": {}
          }
```

```
        },
        "LicenseName": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>License name.</p>",
            "smithy.api#required": {}
          }
        },
        "ProductName": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Product name.</p>",
            "smithy.api#required": {}
          }
        },
        "Issuer": {
          "target": "com.amazonaws.licensemanager#Issuer",
          "traits":
{
            "smithy.api#documentation": "<p>License issuer.</p>",
            "smithy.api#required": {}
          }
        },
        "HomeRegion": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Home Region of the license.</p>",
            "smithy.api#required": {}
          }
        },
        "Validity": {
          "target": "com.amazonaws.licensemanager#DatetimeRange",
          "traits": {
            "smithy.api#documentation": "<p>Date and time range during which the license is valid, in ISO8601-
UTC format.</p>",
            "smithy.api#required": {}
          }
        },
        "LicenseMetadata": {
          "target": "com.amazonaws.licensemanager#MetadataList",
          "traits": {
             "smithy.api#documentation": "<p>Information about the license.</p>"
          }
        },
        "Entitlements": {
          "target": "com.amazonaws.licensemanager#EntitlementList",
          "traits": {
            "smithy.api#documentation": "<p>License entitlements.</p>",
```

```
                "smithy.api#required": {}
              }
            },
            "ConsumptionConfiguration": {
              "target": "com.amazonaws.licensemanager#ConsumptionConfiguration",
              "traits": {
                "smithy.api#documentation": "<p>Configuration for consumption of the license. Choose a provisional configuration for workloads\n          running with continuous connectivity. Choose a borrow configuration for workloads with offline\n          usage.</p>",
                "smithy.api#required": {}
              }
            },

  "Status": {
              "target": "com.amazonaws.licensemanager#LicenseStatus",
              "traits": {
                "smithy.api#documentation": "<p>License status.</p>",
                "smithy.api#required": {}
              }
            },
            "ClientToken": {
              "target": "com.amazonaws.licensemanager#ClientToken",
              "traits": {
                "smithy.api#documentation": "<p>Unique, case-sensitive identifier that you provide to ensure the idempotency of the request.</p>",
                "smithy.api#required": {}
              }
            },
            "SourceVersion": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Current version of the license.</p>"
              }
            }
          },
          "traits": {

 "smithy.api#input": {}
          }
        },
        "com.amazonaws.licensemanager#CreateLicenseVersionResponse": {
          "type": "structure",
          "members": {
            "LicenseArn": {
              "target": "com.amazonaws.licensemanager#Arn",
              "traits": {
                "smithy.api#documentation": "<p>License ARN.</p>"
              }
```

```
        },
        "Version": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>New version of the license.</p>"
          }
        },
        "Status": {
          "target": "com.amazonaws.licensemanager#LicenseStatus",
          "traits": {
            "smithy.api#documentation": "<p>License status.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#output":
{}
      }
    },
    "com.amazonaws.licensemanager#CreateToken": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#CreateTokenRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#CreateTokenResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#RedirectException"
        },
        {
          "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
        },

    {
          "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
        },
        {
```

```
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          },
          {
            "target": "com.amazonaws.licensemanager#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Creates a long-lived token.</p>\n        <p>A refresh token is a JWT token used to get an access token. With an access token,\n        you can call AssumeRoleWithWebIdentity to get role credentials that you can use to \n        call License Manager to manage the specified license.</p>"
        }
      },
      "com.amazonaws.licensemanager#CreateTokenRequest": {
        "type": "structure",
        "members": {
          "LicenseArn": {
            "target": "com.amazonaws.licensemanager#Arn",
            "traits":
{
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license. The ARN is mapped to the aud claim of the\n        JWT token.</p>",
              "smithy.api#required": {}
            }
          },
          "RoleArns": {
            "target": "com.amazonaws.licensemanager#ArnList",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the IAM roles to embed in the token. \n        License Manager does not check whether the roles are in use.</p>"
            }
          },
          "ExpirationInDays": {
            "target": "com.amazonaws.licensemanager#Integer",
            "traits": {
              "smithy.api#documentation": "<p>Token expiration, in days, counted from token creation. The default is 365 days.</p>"
            }
          },
          "TokenProperties": {
             "target": "com.amazonaws.licensemanager#MaxSize3StringList",
            "traits": {
              "smithy.api#documentation": "<p>Data specified by the caller to be included in the JWT token. The data is mapped\n        to the amr claim of the JWT token.</p>"
            }
          },
          "ClientToken": {
            "target": "com.amazonaws.licensemanager#ClientToken",
            "traits": {
```

```
            "smithy.api#documentation": "<p>Idempotency token, valid for 10 minutes.</p>",
            "smithy.api#required": {}
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#CreateTokenResponse": {
      "type": "structure",
      "members": {
        "TokenId": {
          "target": "com.amazonaws.licensemanager#String",

          "traits": {
            "smithy.api#documentation": "<p>Token ID.</p>"
          }
        },
        "TokenType": {
          "target": "com.amazonaws.licensemanager#TokenType",
          "traits": {
            "smithy.api#documentation": "<p>Token type.</p>"
          }
        },
        "Token": {
          "target": "com.amazonaws.licensemanager#TokenString",
          "traits": {
            "smithy.api#documentation": "<p>Refresh token, encoded as a JWT token.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanager#DateTime": {
      "type": "timestamp"
    },
    "com.amazonaws.licensemanager#DatetimeRange": {
      "type": "structure",
      "members": {
        "Begin": {
          "target": "com.amazonaws.licensemanager#ISO8601DateTime",
          "traits": {
            "smithy.api#documentation": "<p>Start of the time range.</p>",
            "smithy.api#required": {}
          }
```

```
        },
        "End": {
          "target": "com.amazonaws.licensemanager#ISO8601DateTime",
          "traits": {
            "smithy.api#documentation": "<p>End of the time range.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>Describes a time range, in ISO8601-UTC format.</p>"
      }
    },
    "com.amazonaws.licensemanager#DeleteGrant": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#DeleteGrantRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#DeleteGrantResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
          "target": "com.amazonaws.licensemanager#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Deletes
the specified grant.</p>"
      }
    },
```

```
    "com.amazonaws.licensemanager#DeleteGrantRequest": {
      "type": "structure",
      "members": {
        "GrantArn": {
          "target": "com.amazonaws.licensemanager#Arn",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the grant.</p>",
            "smithy.api#required": {}
          }
        },
        "StatusReason": {
          "target": "com.amazonaws.licensemanager#StatusReasonMessage",
          "traits": {
            "smithy.api#documentation": "<p>The Status reason for the delete request.</p>"
          }
        },
        "Version": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Current version of the
grant.</p>",
            "smithy.api#required": {}
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#DeleteGrantResponse": {
      "type": "structure",
      "members": {
        "GrantArn": {
          "target": "com.amazonaws.licensemanager#Arn",
          "traits": {
            "smithy.api#documentation": "<p>Grant ARN.</p>"
          }
        },
        "Status": {
          "target": "com.amazonaws.licensemanager#GrantStatus",
          "traits": {
            "smithy.api#documentation": "<p>Grant status.</p>"
          }
        },
        "Version": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation":
```

```
"<p>Grant version.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#DeleteLicense": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#DeleteLicenseRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#DeleteLicenseResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#ConflictException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"

},
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#RedirectException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Deletes the specified license.</p>"
        }
    },
    "com.amazonaws.licensemanager#DeleteLicenseConfiguration": {
```

```
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#DeleteLicenseConfigurationRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#DeleteLicenseConfigurationResponse"
        },

    "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Deletes the specified license configuration.</p>\n        <p>You cannot
delete a license configuration that is in use.</p>"
        }
    },
    "com.amazonaws.licensemanager#DeleteLicenseConfigurationRequest": {
        "type": "structure",
        "members":
{
            "LicenseConfigurationArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>ID of the license configuration.</p>",
                    "smithy.api#required": {}
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#DeleteLicenseConfigurationResponse": {
        "type": "structure",
```

```
    "members": {},
    "traits": {
      "smithy.api#output": {}
    }
  },
  "com.amazonaws.licensemanager#DeleteLicenseManagerReportGenerator": {
    "type": "operation",
    "input": {
      "target": "com.amazonaws.licensemanager#DeleteLicenseManagerReportGeneratorRequest"
    },
    "output": {
      "target": "com.amazonaws.licensemanager#DeleteLicenseManagerReportGeneratorResponse"
    },
    "errors": [
      {
        "target": "com.amazonaws.licensemanager#AccessDeniedException"
      },
      {
        "target": "com.amazonaws.licensemanager#AuthorizationException"
      },
      {
        "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
      },
      {
        "target": "com.amazonaws.licensemanager#RateLimitExceededException"
      },
      {
        "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
      },
      {
        "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
      },
      {
        "target": "com.amazonaws.licensemanager#ServerInternalException"
      },
      {
        "target": "com.amazonaws.licensemanager#ValidationException"
      }
    ],
    "traits": {
      "smithy.api#documentation": "<p>Deletes the specified report generator.</p>\n          <p>This action deletes the report generator, which stops it from generating future reports.\n          The action cannot be reversed. It has no effect on the previous reports from this generator.</p>"
    }
  },
  "com.amazonaws.licensemanager#DeleteLicenseManagerReportGeneratorRequest": {
    "type": "structure",
    "members": {
```

```
            "LicenseManagerReportGeneratorArn": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the report generator to be
deleted.</p>",
                  "smithy.api#required": {}
               }
            }
         },
         "traits": {

 "smithy.api#input": {}
         }
      },
      "com.amazonaws.licensemanager#DeleteLicenseManagerReportGeneratorResponse": {
         "type": "structure",
         "members": {},
         "traits": {
            "smithy.api#output": {}
         }
      },
      "com.amazonaws.licensemanager#DeleteLicenseRequest": {
         "type": "structure",
         "members": {
            "LicenseArn": {
               "target": "com.amazonaws.licensemanager#Arn",
               "traits": {
                  "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>",
                  "smithy.api#required": {}
               }
            },
            "SourceVersion": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Current version of the license.</p>",
                  "smithy.api#required":
{}
               }
            }
         },
         "traits": {
            "smithy.api#input": {}
         }
      },
      "com.amazonaws.licensemanager#DeleteLicenseResponse": {
         "type": "structure",
         "members": {
            "Status": {
```

```
            "target": "com.amazonaws.licensemanager#LicenseDeletionStatus",
            "traits": {
                "smithy.api#documentation": "<p>License status.</p>"
            }
        },
        "DeletionDate": {
            "target": "com.amazonaws.licensemanager#ISO8601DateTime",
            "traits": {
                "smithy.api#documentation": "<p>Date when the license is deleted.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#output": {}
    }
},
"com.amazonaws.licensemanager#DeleteToken": {
    "type": "operation",
     "input": {
        "target": "com.amazonaws.licensemanager#DeleteTokenRequest"
    },
    "output": {
        "target": "com.amazonaws.licensemanager#DeleteTokenResponse"
    },
    "errors": [
        {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
            "target": "com.amazonaws.licensemanager#RedirectException"
        },
        {
            "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
        },
        {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
        },

{
            "target": "com.amazonaws.licensemanager#ValidationException"
        }
    ],
```

```
      "traits": {
        "smithy.api#documentation": "<p>Deletes the specified token. Must be called in the license home Region.</p>"
      }
    },
    "com.amazonaws.licensemanager#DeleteTokenRequest": {
      "type": "structure",
      "members": {
        "TokenId": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Token ID.</p>",
            "smithy.api#required": {}
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#DeleteTokenResponse": {
      "type": "structure",
      "members": {},
      "traits": {
        "smithy.api#output": {}

      }
    },
    "com.amazonaws.licensemanager#DigitalSignatureMethod": {
      "type": "enum",
      "members": {
        "JWT_PS384": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "JWT_PS384"
          }
        }
      }
    },
    "com.amazonaws.licensemanager#Entitlement": {
      "type": "structure",
      "members": {
        "Name": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Entitlement name.</p>",
            "smithy.api#required": {}
          }
```

```
            },
            "Value": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Entitlement resource. Use only
if the unit is None.</p>"
              }
            },
            "MaxCount": {
              "target": "com.amazonaws.licensemanager#Long",
              "traits": {
                "smithy.api#documentation": "<p>Maximum entitlement count. Use if the unit is not None.</p>"
              }
            },
            "Overage": {
              "target": "com.amazonaws.licensemanager#BoxBoolean",
              "traits": {
                "smithy.api#documentation": "<p>Indicates whether overages are allowed.</p>"
              }
            },
            "Unit": {
              "target": "com.amazonaws.licensemanager#EntitlementUnit",
              "traits": {
                "smithy.api#documentation": "<p>Entitlement unit.</p>",
                "smithy.api#required": {}
              }
            },
            "AllowCheckIn": {
              "target":
"com.amazonaws.licensemanager#BoxBoolean",
              "traits": {
                "smithy.api#documentation": "<p>Indicates whether check-ins are allowed.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>Describes a resource entitled for use with a license.</p>"
          }
        },
        "com.amazonaws.licensemanager#EntitlementData": {
          "type": "structure",
          "members": {
            "Name": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Entitlement data name.</p>",
                "smithy.api#required": {}
              }
```

```
            },
            "Value": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Entitlement
data value.</p>"
               }
            },
            "Unit": {
               "target": "com.amazonaws.licensemanager#EntitlementDataUnit",
               "traits": {
                  "smithy.api#documentation": "<p>Entitlement data unit.</p>",
                  "smithy.api#required": {}
               }
            }
         },
         "traits": {
            "smithy.api#documentation": "<p>Data associated with an entitlement resource.</p>"
         }
      },
      "com.amazonaws.licensemanager#EntitlementDataList": {
         "type": "list",
         "member": {
            "target": "com.amazonaws.licensemanager#EntitlementData"
         }
      },
      "com.amazonaws.licensemanager#EntitlementDataUnit": {
         "type": "enum",
         "members": {
            "COUNT": {
               "target": "smithy.api#Unit",
               "traits": {

"smithy.api#enumValue": "Count"
               }
            },
            "NONE": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "None"
               }
            },
            "SECONDS": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "Seconds"
               }
            },
```

```
        "MICROSECONDS": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Microseconds"
          }
        },
        "MILLISECONDS": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Milliseconds"
          }
        },
        "BYTES": {
          "target": "smithy.api#Unit",
           "traits": {
            "smithy.api#enumValue": "Bytes"
          }
        },
        "KILOBYTES": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Kilobytes"
          }
        },
        "MEGABYTES": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Megabytes"
          }
        },
        "GIGABYTES": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Gigabytes"
          }
        },
        "TERABYTES": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Terabytes"
          }
        },
        "BITS":
{
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Bits"
          }
```

```
        },
        "KILOBITS": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Kilobits"
            }
        },
        "MEGABITS": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Megabits"
            }
        },
        "GIGABITS": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Gigabits"
            }
        },
        "TERABITS": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Terabits"

}
        },
        "PERCENT": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Percent"
            }
        },
        "BYTES_PER_SECOND": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Bytes/Second"
            }
        },
        "KILOBYTES_PER_SECOND": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Kilobytes/Second"
            }
        },
        "MEGABYTES_PER_SECOND": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Megabytes/Second"
```

```
            }
        },
        "GIGABYTES_PER_SECOND": {
            "target": "smithy.api#Unit",
             "traits": {
                "smithy.api#enumValue": "Gigabytes/Second"
            }
        },
        "TERABYTES_PER_SECOND": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Terabytes/Second"
            }
        },
        "BITS_PER_SECOND": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Bits/Second"
            }
        },
        "KILOBITS_PER_SECOND": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Kilobits/Second"
            }
        },
        "MEGABITS_PER_SECOND": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue":
"Megabits/Second"
            }
        },
        "GIGABITS_PER_SECOND": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Gigabits/Second"
            }
        },
        "TERABITS_PER_SECOND": {
            "target": "smithy.api#Unit",
            "traits": {
                "smithy.api#enumValue": "Terabits/Second"
            }
        },
        "COUNT_PER_SECOND": {
            "target": "smithy.api#Unit",
            "traits": {
```

```
                "smithy.api#enumValue": "Count/Second"
              }
            }
          }
        },
        "com.amazonaws.licensemanager#EntitlementList": {
          "type": "list",
          "member": {
            "target": "com.amazonaws.licensemanager#Entitlement"
          }
        },
        "com.amazonaws.licensemanager#EntitlementNotAllowedException":
{
          "type": "structure",
          "members": {
            "Message": {
              "target": "com.amazonaws.licensemanager#Message"
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>The entitlement is not allowed.</p>",
            "smithy.api#error": "client",
            "smithy.api#httpError": 400
          }
        },
        "com.amazonaws.licensemanager#EntitlementUnit": {
          "type": "enum",
          "members": {
            "COUNT": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "Count"
              }
            },
            "NONE": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "None"
              }
            },
            "SECONDS":
{
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "Seconds"
              }
            },
            "MICROSECONDS": {
```

```
    "target": "smithy.api#Unit",
    "traits": {
      "smithy.api#enumValue": "Microseconds"
    }
  },
  "MILLISECONDS": {
    "target": "smithy.api#Unit",
    "traits": {
      "smithy.api#enumValue": "Milliseconds"
    }
  },
  "BYTES": {
    "target": "smithy.api#Unit",
    "traits": {
      "smithy.api#enumValue": "Bytes"
    }
  },
  "KILOBYTES": {
    "target": "smithy.api#Unit",
    "traits": {
      "smithy.api#enumValue": "Kilobytes"
     }
  },
  "MEGABYTES": {
    "target": "smithy.api#Unit",
    "traits": {
      "smithy.api#enumValue": "Megabytes"
    }
  },
  "GIGABYTES": {
    "target": "smithy.api#Unit",
    "traits": {
      "smithy.api#enumValue": "Gigabytes"
    }
  },
  "TERABYTES": {
    "target": "smithy.api#Unit",
    "traits": {
      "smithy.api#enumValue": "Terabytes"
    }
  },
  "BITS": {
    "target": "smithy.api#Unit",
    "traits": {
      "smithy.api#enumValue": "Bits"
    }
  },
  "KILOBITS": {
```

```
            "target": "smithy.api#Unit",
            "traits": {

             "smithy.api#enumValue": "Kilobits"
            }
          },
          "MEGABITS": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "Megabits"
            }
          },
          "GIGABITS": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "Gigabits"
            }
          },
          "TERABITS": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "Terabits"
            }
          },
          "PERCENT": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "Percent"
            }
          },
          "BYTES_PER_SECOND": {
            "target":
"smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "Bytes/Second"
            }
          },
          "KILOBYTES_PER_SECOND": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "Kilobytes/Second"
            }
          },
          "MEGABYTES_PER_SECOND": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "Megabytes/Second"
            }
```

```
            },
            "GIGABYTES_PER_SECOND": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "Gigabytes/Second"
               }
            },
            "TERABYTES_PER_SECOND": {
               "target": "smithy.api#Unit",
               "traits": {

"smithy.api#enumValue": "Terabytes/Second"
               }
            },
            "BITS_PER_SECOND": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "Bits/Second"
               }
            },
            "KILOBITS_PER_SECOND": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "Kilobits/Second"
               }
            },
            "MEGABITS_PER_SECOND": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "Megabits/Second"
               }
            },
            "GIGABITS_PER_SECOND": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "Gigabits/Second"
               }
            },

         "TERABITS_PER_SECOND": {
               "target": "smithy.api#Unit",
               "traits": {
                  "smithy.api#enumValue": "Terabits/Second"
               }
            },
            "COUNT_PER_SECOND": {
               "target": "smithy.api#Unit",
               "traits": {
```

```
                "smithy.api#enumValue": "Count/Second"
              }
            }
          }
        },
        "com.amazonaws.licensemanager#EntitlementUsage": {
          "type": "structure",
          "members": {
            "Name": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Entitlement usage name.</p>",
                "smithy.api#required": {}
              }
            },
            "ConsumedValue": {
              "target": "com.amazonaws.licensemanager#String",

            "traits": {
                "smithy.api#documentation": "<p>Resource usage consumed.</p>",
                "smithy.api#required": {}
              }
            },
            "MaxCount": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Maximum entitlement usage count.</p>"
              }
            },
            "Unit": {
              "target": "com.amazonaws.licensemanager#EntitlementDataUnit",
              "traits": {
                "smithy.api#documentation": "<p>Entitlement usage unit.</p>",
                "smithy.api#required": {}
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>Usage associated with an entitlement resource.</p>"
          }
        },
        "com.amazonaws.licensemanager#EntitlementUsageList":
{
          "type": "list",
          "member": {
            "target": "com.amazonaws.licensemanager#EntitlementUsage"
          }
        },
```

```
"com.amazonaws.licensemanager#ExtendLicenseConsumption": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanager#ExtendLicenseConsumptionRequest"
    },
    "output": {
        "target": "com.amazonaws.licensemanager#ExtendLicenseConsumptionResponse"
    },
    "errors": [
        {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
         },
        {
            "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
        },
        {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
            "target": "com.amazonaws.licensemanager#ValidationException"
        }
    ],
    "traits": {
        "smithy.api#documentation": "<p>Extends the expiration date for license consumption.</p>"
    }
},
"com.amazonaws.licensemanager#ExtendLicenseConsumptionRequest": {
    "type": "structure",
    "members": {
        "LicenseConsumptionToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>License consumption token.</p>",
                "smithy.api#required": {}

  }
        },
        "DryRun": {
            "target": "com.amazonaws.licensemanager#Boolean",
```

```
            "traits": {
                "smithy.api#default": false,
                "smithy.api#documentation": "<p>Checks whether you have the required permissions for the action, without actually making the request. Provides an error response if you do not have the required permissions.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#input": {}
    }
},
"com.amazonaws.licensemanager#ExtendLicenseConsumptionResponse": {
    "type": "structure",
    "members": {
        "LicenseConsumptionToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>License consumption token.</p>"
            }
        },

        "Expiration": {
            "target": "com.amazonaws.licensemanager#ISO8601DateTime",
            "traits": {
                "smithy.api#documentation": "<p>Date and time at which the license consumption expires.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#output": {}
    }
},
"com.amazonaws.licensemanager#FailedDependencyException": {
    "type": "structure",
    "members": {
        "Message": {
            "target": "com.amazonaws.licensemanager#Message"
        },
        "ErrorCode": {
            "target": "com.amazonaws.licensemanager#String"
        }
    },
    "traits": {
        "aws.protocols#awsQueryError": {
            "code": "FailedDependency",
            "httpResponseCode": 424
        },
        "smithy.api#documentation":
```

```
"<p>A dependency required to run the API is missing.</p>",
            "smithy.api#error": "client",
            "smithy.api#httpError": 424
        }
    },
    "com.amazonaws.licensemanager#Filter": {
        "type": "structure",
        "members": {
            "Name": {
                "target": "com.amazonaws.licensemanager#FilterName",
                "traits": {
                    "smithy.api#documentation": "<p>Name of the filter. Filter names are case-sensitive.</p>"
                }
            },
            "Values": {
                "target": "com.amazonaws.licensemanager#FilterValues",
                "traits": {
                    "smithy.api#documentation": "<p>The value of the filter, which is case-sensitive. You can only
specify one value for the filter.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>A filter
 name and value pair that is used to return more specific results from a\n          describe operation. Filters can be used
to match a set of resources by specific criteria,\n          such as tags, attributes, or IDs.</p>"
        }
    },
    "com.amazonaws.licensemanager#FilterLimitExceededException": {
        "type": "structure",
        "members": {
            "Message": {
                "target": "com.amazonaws.licensemanager#Message"
            }
        },
        "traits": {
            "aws.protocols#awsQueryError": {
                "code": "FilterLimitExceeded",
                "httpResponseCode": 400
            },
            "smithy.api#documentation": "<p>The request uses too many filters or too many filter values.</p>",
            "smithy.api#error": "client",
            "smithy.api#httpError": 400
        }
    },
    "com.amazonaws.licensemanager#FilterList": {
        "type": "list",
```

```
    "member": {
      "target": "com.amazonaws.licensemanager#Filter"
    }
  },
  "com.amazonaws.licensemanager#FilterName": {
    "type": "string"
  },
  "com.amazonaws.licensemanager#FilterValue": {
    "type": "string"
  },
  "com.amazonaws.licensemanager#FilterValues": {
    "type": "list",
    "member": {
      "target": "com.amazonaws.licensemanager#FilterValue",
      "traits": {
        "smithy.api#xmlName": "item"
      }
    }
  },
  "com.amazonaws.licensemanager#Filters": {
    "type": "list",
    "member": {
      "target": "com.amazonaws.licensemanager#Filter",
      "traits": {
        "smithy.api#xmlName": "item"
      }
    }
  },
  "com.amazonaws.licensemanager#GetAccessToken": {
    "type": "operation",
    "input": {
      "target": "com.amazonaws.licensemanager#GetAccessTokenRequest"
    },
    "output": {
      "target": "com.amazonaws.licensemanager#GetAccessTokenResponse"
    },
    "errors": [
      {
        "target": "com.amazonaws.licensemanager#AccessDeniedException"
      },
      {
        "target": "com.amazonaws.licensemanager#AuthorizationException"
      },
      {
        "target": "com.amazonaws.licensemanager#RateLimitExceededException"
      },
      {
        "target": "com.amazonaws.licensemanager#ServerInternalException"
```

```
            },
            {
               "target": "com.amazonaws.licensemanager#ValidationException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Gets a temporary access token to use with
AssumeRoleWithWebIdentity. Access
 tokens\n         are valid for one hour.</p>"
         }
      },
      "com.amazonaws.licensemanager#GetAccessTokenRequest": {
         "type": "structure",
         "members": {
            "Token": {
               "target": "com.amazonaws.licensemanager#TokenString",
               "traits": {
                  "smithy.api#documentation": "<p>Refresh token, encoded as a JWT token.</p>",
                  "smithy.api#required": {}
               }
            },
            "TokenProperties": {
               "target": "com.amazonaws.licensemanager#MaxSize3StringList",
               "traits": {
                  "smithy.api#documentation": "<p>Token properties to validate against those present in the JWT
token.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#input": {}
         }
      },
      "com.amazonaws.licensemanager#GetAccessTokenResponse":
 {
         "type": "structure",
         "members": {
            "AccessToken": {
               "target": "com.amazonaws.licensemanager#TokenString",
               "traits": {
                  "smithy.api#documentation": "<p>Temporary access token.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#output": {}
         }
      },
```

```
"com.amazonaws.licensemanager#GetGrant": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanager#GetGrantRequest"
    },
    "output": {
        "target": "com.amazonaws.licensemanager#GetGrantResponse"
    },
    "errors": [
        {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
            "target": "com.amazonaws.licensemanager#AuthorizationException"

    },
        {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
            "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
        },
        {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
            "target": "com.amazonaws.licensemanager#ValidationException"
        }
    ],
    "traits": {
        "smithy.api#documentation": "<p>Gets detailed information about the specified grant.</p>"
    }
},
"com.amazonaws.licensemanager#GetGrantRequest": {
    "type": "structure",
    "members": {
        "GrantArn": {
            "target": "com.amazonaws.licensemanager#Arn",
             "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the grant.</p>",
                "smithy.api#required": {}
            }
        },
        "Version": {
            "target": "com.amazonaws.licensemanager#String",
```

```
            "traits": {
                "smithy.api#documentation": "<p>Grant version.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#input": {}
    }
},
"com.amazonaws.licensemanager#GetGrantResponse": {
    "type": "structure",
    "members": {
        "Grant": {
            "target": "com.amazonaws.licensemanager#Grant",
            "traits": {
                "smithy.api#documentation": "<p>Grant details.</p>"
            }
        }
    },
    "traits": {

"smithy.api#output": {}
    }
},
"com.amazonaws.licensemanager#GetLicense": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanager#GetLicenseRequest"
    },
    "output": {
        "target": "com.amazonaws.licensemanager#GetLicenseResponse"
    },
    "errors": [
        {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
```

```
    },
        {
            "target": "com.amazonaws.licensemanager#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Gets detailed information about the specified license.</p>"
      }
    },
    "com.amazonaws.licensemanager#GetLicenseConfiguration": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#GetLicenseConfigurationRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#GetLicenseConfigurationResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Gets detailed information about the specified license
configuration.</p>"
      }
    },
    "com.amazonaws.licensemanager#GetLicenseConfigurationRequest": {
      "type": "structure",
      "members": {
        "LicenseConfigurationArn": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license
configuration.</p>",
            "smithy.api#required": {}
```

```
            }
          }
        },
        "traits":
{
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#GetLicenseConfigurationResponse": {
        "type": "structure",
        "members": {
          "LicenseConfigurationId": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Unique ID for the license configuration.</p>"
            }
          },
          "LicenseConfigurationArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license configuration.</p>"
            }
          },
          "Name": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Name of the license configuration.</p>"
             }
          },
          "Description": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Description of the license configuration.</p>"
            }
          },
          "LicenseCountingType": {
            "target": "com.amazonaws.licensemanager#LicenseCountingType",
            "traits": {
              "smithy.api#documentation": "<p>Dimension for which the licenses are counted.</p>"
            }
          },
          "LicenseRules": {
            "target": "com.amazonaws.licensemanager#StringList",
            "traits": {
              "smithy.api#documentation": "<p>License rules.</p>"
            }
          },
          "LicenseCount": {
```

```
        "target": "com.amazonaws.licensemanager#BoxLong",

        "traits": {
          "smithy.api#documentation": "<p>Number of available licenses.</p>"
        }
      },
      "LicenseCountHardLimit": {
        "target": "com.amazonaws.licensemanager#BoxBoolean",
        "traits": {
          "smithy.api#documentation": "<p>Sets the number of available licenses as a hard limit.</p>"
        }
      },
      "ConsumedLicenses": {
        "target": "com.amazonaws.licensemanager#BoxLong",
        "traits": {
          "smithy.api#documentation": "<p>Number of licenses assigned to resources.</p>"
        }
      },
      "Status": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>License configuration status.</p>"
        }

    },
      "OwnerAccountId": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>Account ID of the owner of the license configuration.</p>"
        }
      },
      "ConsumedLicenseSummaryList": {
        "target": "com.amazonaws.licensemanager#ConsumedLicenseSummaryList",
        "traits": {
          "smithy.api#documentation": "<p>Summaries of the licenses consumed by resources.</p>"
        }
      },
      "ManagedResourceSummaryList": {
        "target": "com.amazonaws.licensemanager#ManagedResourceSummaryList",
        "traits": {
          "smithy.api#documentation": "<p>Summaries of the managed resources.</p>"
        }
      },
      "Tags": {
        "target": "com.amazonaws.licensemanager#TagList",
         "traits": {
          "smithy.api#documentation": "<p>Tags for the license configuration.</p>"
        }
```

```
            },
            "ProductInformationList": {
               "target": "com.amazonaws.licensemanager#ProductInformationList",
               "traits": {
                  "smithy.api#documentation": "<p>Product information.</p>"
               }
            },
            "AutomatedDiscoveryInformation": {
               "target": "com.amazonaws.licensemanager#AutomatedDiscoveryInformation",
               "traits": {
                  "smithy.api#documentation": "<p>Automated discovery information.</p>"
               }
            },
            "DisassociateWhenNotFound": {
               "target": "com.amazonaws.licensemanager#BoxBoolean",
               "traits": {
                  "smithy.api#documentation": "<p>When
true, disassociates a resource when software is uninstalled.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#output": {}
         }
      },
      "com.amazonaws.licensemanager#GetLicenseConversionTask": {
         "type": "operation",
         "input": {
            "target": "com.amazonaws.licensemanager#GetLicenseConversionTaskRequest"
         },
         "output": {
            "target": "com.amazonaws.licensemanager#GetLicenseConversionTaskResponse"
         },
         "errors": [
            {
               "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
               "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
               "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {

 "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
```

```
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Gets information about the specified license type conversion task.</p>"
        }
    },
    "com.amazonaws.licensemanager#GetLicenseConversionTaskRequest": {
        "type": "structure",
        "members": {
            "LicenseConversionTaskId": {
                "target": "com.amazonaws.licensemanager#LicenseConversionTaskId",
                "traits": {
                    "smithy.api#documentation": "<p>ID of the license type conversion task to retrieve information
on.</p>",
                    "smithy.api#required": {}
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#GetLicenseConversionTaskResponse": {
        "type": "structure",
        "members": {
            "LicenseConversionTaskId": {
                "target": "com.amazonaws.licensemanager#LicenseConversionTaskId",
                "traits": {
                    "smithy.api#documentation": "<p>ID of the license type conversion task.</p>"
                }
            },
            "ResourceArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Names (ARN) of the resources the license
conversion task is associated with.</p>"
                }
            },
            "SourceLicenseContext": {
                "target": "com.amazonaws.licensemanager#LicenseConversionContext",
                "traits": {
                    "smithy.api#documentation": "<p>Information
 about the license type converted from.</p>"
                }
            },
            "DestinationLicenseContext": {
                "target": "com.amazonaws.licensemanager#LicenseConversionContext",
```

```
            "traits": {
              "smithy.api#documentation": "<p>Information about the license type converted to.</p>"
            }
          },
          "StatusMessage": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>The status message for the conversion task.</p>"
            }
          },
          "Status": {
            "target": "com.amazonaws.licensemanager#LicenseConversionTaskStatus",
            "traits": {
              "smithy.api#documentation": "<p>Status of the license type conversion task.</p>"
            }
          },

  "StartTime": {
            "target": "com.amazonaws.licensemanager#DateTime",
            "traits": {
              "smithy.api#documentation": "<p>Time at which the license type conversion task was started .</p>"
            }
          },
          "LicenseConversionTime": {
            "target": "com.amazonaws.licensemanager#DateTime",
            "traits": {
              "smithy.api#documentation": "<p>Amount of time to complete the license type conversion.</p>"
            }
          },
          "EndTime": {
            "target": "com.amazonaws.licensemanager#DateTime",
            "traits": {
              "smithy.api#documentation": "<p>Time at which the license type conversion task was
completed.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#GetLicenseManagerReportGenerator":
{
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#GetLicenseManagerReportGeneratorRequest"
        },
        "output": {
```

```
            "target": "com.amazonaws.licensemanager#GetLicenseManagerReportGeneratorResponse"
          },
          "errors": [
            {
              "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
              "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
              "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
              "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
              "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"

           },
            {
              "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
            },
            {
              "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
              "target": "com.amazonaws.licensemanager#ValidationException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Gets information about the specified report generator.</p>"
          }
        },
        "com.amazonaws.licensemanager#GetLicenseManagerReportGeneratorRequest": {
          "type": "structure",
          "members": {
            "LicenseManagerReportGeneratorArn": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the report generator.</p>",
                "smithy.api#required":
{}
              }
            }
          },
          "traits": {
            "smithy.api#input": {}
          }
```

```
    },
    "com.amazonaws.licensemanager#GetLicenseManagerReportGeneratorResponse": {
      "type": "structure",
      "members": {
        "ReportGenerator": {
          "target": "com.amazonaws.licensemanager#ReportGenerator",
          "traits": {
            "smithy.api#documentation": "<p>A report generator that creates periodic reports about your license
configurations.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanager#GetLicenseRequest": {
      "type": "structure",
      "members": {
        "LicenseArn": {
          "target": "com.amazonaws.licensemanager#Arn",
          "traits": {

 "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>",
            "smithy.api#required": {}
          }
        },
        "Version": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>License version.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#GetLicenseResponse": {
      "type": "structure",
      "members": {
        "License": {
          "target": "com.amazonaws.licensemanager#License",
          "traits": {
            "smithy.api#documentation": "<p>License details.</p>"
          }
        }
      },
```

```
      "traits": {
        "smithy.api#output": {}
      }
    },

"com.amazonaws.licensemanager#GetLicenseUsage": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#GetLicenseUsageRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#GetLicenseUsageResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {

"target": "com.amazonaws.licensemanager#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Gets detailed information about the usage of the specified license.</p>"
      }
    },
    "com.amazonaws.licensemanager#GetLicenseUsageRequest": {
      "type": "structure",
      "members": {
        "LicenseArn": {
          "target": "com.amazonaws.licensemanager#Arn",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>",
            "smithy.api#required": {}
          }
        }
```

```
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#GetLicenseUsageResponse": {
        "type": "structure",
        "members": {
          "LicenseUsage": {
            "target":
"com.amazonaws.licensemanager#LicenseUsage",
            "traits": {
              "smithy.api#documentation": "<p>License usage details.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#GetServiceSettings": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#GetServiceSettingsRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#GetServiceSettingsResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
           },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Gets the License Manager settings for the current Region.</p>"
        }
      },
      "com.amazonaws.licensemanager#GetServiceSettingsRequest": {
        "type": "structure",
```

```
        "members": {},
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#GetServiceSettingsResponse": {
        "type": "structure",
        "members": {
            "S3BucketArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Regional S3 bucket path for storing reports, license trail event data,
discovery data,\n         and so on.</p>"

 }
            },
            "SnsTopicArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>SNS topic configured to receive notifications from License
Manager.</p>"
                }
            },
            "OrganizationConfiguration": {
                "target": "com.amazonaws.licensemanager#OrganizationConfiguration",
                "traits": {
                    "smithy.api#documentation": "<p>Indicates whether Organizations is integrated with License
Manager for\n         cross-account discovery.</p>"
                }
            },
            "EnableCrossAccountsDiscovery": {
                "target": "com.amazonaws.licensemanager#BoxBoolean",
                "traits": {
                    "smithy.api#documentation": "<p>Indicates whether cross-account discovery is enabled.</p>"
                }

        },
            "LicenseManagerResourceShareArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the resource share. The License
Manager management account \n         provides member accounts with access to this share.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#output": {}
        }
```

```
    },
    "com.amazonaws.licensemanager#Grant": {
      "type": "structure",
      "members": {
        "GrantArn": {
          "target": "com.amazonaws.licensemanager#Arn",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the grant.</p>",
            "smithy.api#required": {}
          }
        },
        "GrantName": {

 "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Grant name.</p>",
            "smithy.api#required": {}
          }
        },
        "ParentArn": {
          "target": "com.amazonaws.licensemanager#Arn",
          "traits": {
            "smithy.api#documentation": "<p>Parent ARN.</p>",
            "smithy.api#required": {}
          }
        },
        "LicenseArn": {
          "target": "com.amazonaws.licensemanager#Arn",
          "traits": {
            "smithy.api#documentation": "<p>License ARN.</p>",
            "smithy.api#required": {}
          }
        },
        "GranteePrincipalArn": {
          "target": "com.amazonaws.licensemanager#Arn",
          "traits": {

"smithy.api#documentation": "<p>The grantee principal ARN.</p>",
            "smithy.api#required": {}
          }
        },
        "HomeRegion": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Home Region of the grant.</p>",
            "smithy.api#required": {}
          }
        },
```

```
            "GrantStatus": {
               "target": "com.amazonaws.licensemanager#GrantStatus",
               "traits": {
                  "smithy.api#documentation": "<p>Grant status.</p>",
                  "smithy.api#required": {}
               }
            },
            "StatusReason": {
               "target": "com.amazonaws.licensemanager#StatusReasonMessage",
               "traits": {
                  "smithy.api#documentation": "<p>Grant status reason.</p>"
                }
            },
            "Version": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Grant version.</p>",
                  "smithy.api#required": {}
               }
            },
            "GrantedOperations": {
               "target": "com.amazonaws.licensemanager#AllowedOperationList",
               "traits": {
                  "smithy.api#documentation": "<p>Granted operations.</p>",
                  "smithy.api#required": {}
               }
            },
            "Options": {
               "target": "com.amazonaws.licensemanager#Options",
               "traits": {
                  "smithy.api#documentation": "<p>The options specified for the grant.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#documentation":
"<p>Describes a grant.</p>"
         }
      },
      "com.amazonaws.licensemanager#GrantList": {
         "type": "list",
         "member": {
            "target": "com.amazonaws.licensemanager#Grant"
         }
      },
      "com.amazonaws.licensemanager#GrantStatus": {
         "type": "enum",
         "members": {
```

```
        "PENDING_WORKFLOW": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "PENDING_WORKFLOW"
          }
        },
        "PENDING_ACCEPT": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "PENDING_ACCEPT"
          }
        },
        "REJECTED": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "REJECTED"

        }
        },
        "ACTIVE": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "ACTIVE"
          }
        },
        "FAILED_WORKFLOW": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "FAILED_WORKFLOW"
          }
        },
        "DELETED": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "DELETED"
          }
        },
        "PENDING_DELETE": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "PENDING_DELETE"
          }
        },
        "DISABLED": {
          "target": "smithy.api#Unit",
          "traits":
{
            "smithy.api#enumValue": "DISABLED"
```

```
            }
          },
          "WORKFLOW_COMPLETED": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "WORKFLOW_COMPLETED"
            }
          }
        }
      },
      "com.amazonaws.licensemanager#GrantedLicense": {
        "type": "structure",
        "members": {
          "LicenseArn": {
            "target": "com.amazonaws.licensemanager#Arn",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>"
            }
          },
          "LicenseName": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>License name.</p>"
            }

},
          "ProductName": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Product name.</p>"
            }
          },
          "ProductSKU": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Product SKU.</p>"
            }
          },
          "Issuer": {
            "target": "com.amazonaws.licensemanager#IssuerDetails",
            "traits": {
              "smithy.api#documentation": "<p>Granted license issuer.</p>"
            }
          },
          "HomeRegion": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Home Region of the granted license.</p>"
```

```
        }
      },
      "Status": {
        "target": "com.amazonaws.licensemanager#LicenseStatus",
        "traits": {
          "smithy.api#documentation": "<p>Granted license status.</p>"
        }
      },
      "Validity": {
        "target": "com.amazonaws.licensemanager#DatetimeRange",
        "traits": {
          "smithy.api#documentation": "<p>Date and time range during which the granted license is valid, in
ISO8601-UTC format.</p>"
        }
      },
      "Beneficiary": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>Granted license beneficiary.</p>"
        }
      },
      "Entitlements": {
        "target": "com.amazonaws.licensemanager#EntitlementList",
        "traits": {
          "smithy.api#documentation": "<p>License entitlements.</p>"
        }
      },
      "ConsumptionConfiguration": {
        "target": "com.amazonaws.licensemanager#ConsumptionConfiguration",
        "traits": {
          "smithy.api#documentation": "<p>Configuration for consumption of the license.</p>"
        }
      },
      "LicenseMetadata": {
        "target": "com.amazonaws.licensemanager#MetadataList",
        "traits": {
          "smithy.api#documentation": "<p>Granted license metadata.</p>"
        }
      },
      "CreateTime": {
        "target": "com.amazonaws.licensemanager#ISO8601DateTime",
        "traits": {
          "smithy.api#documentation": "<p>Creation time of the granted license.</p>"

  }
      },
      "Version": {
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            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Version of the granted license.</p>"
            }
          },
          "ReceivedMetadata": {
            "target": "com.amazonaws.licensemanager#ReceivedMetadata",
            "traits": {
              "smithy.api#documentation": "<p>Granted license received metadata.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Describes a license that is granted to a grantee.</p>"
        }
      },
      "com.amazonaws.licensemanager#GrantedLicenseList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#GrantedLicense"
        }
      },
      "com.amazonaws.licensemanager#ISO8601DateTime":
{
        "type": "string",
        "traits": {
          "smithy.api#length": {
            "min": 0,
            "max": 50
          },
          "smithy.api#pattern": "^(-?(?:[1-9][0-9]*)?[0-9]{4})-(1[0-2]|0[1-9])-(3[0-1]|0[1-9]|[1-2][0-9])T(2[0-3]|[0-
1][0-9]):([0-5][0-9]):([0-5][0-9])(\\.[0-9]+)?(Z|[+-](?:2[ 0-3]|[0-1][0-9]):[0-5][0-9])+$"
        }
      },
      "com.amazonaws.licensemanager#Integer": {
        "type": "integer"
      },
      "com.amazonaws.licensemanager#InvalidParameterValueException": {
        "type": "structure",
        "members": {
          "Message": {
            "target": "com.amazonaws.licensemanager#Message"
          }
        },
        "traits": {
          "aws.protocols#awsQueryError": {
            "code": "InvalidParameterValueProvided",
            "httpResponseCode": 400
```

```
            },
            "smithy.api#documentation":
 "<p>One or more parameter values are not valid.</p>",
            "smithy.api#error": "client",
            "smithy.api#httpError": 400
          }
        },
        "com.amazonaws.licensemanager#InvalidResourceStateException": {
          "type": "structure",
          "members": {
            "Message": {
              "target": "com.amazonaws.licensemanager#Message"
            }
          },
          "traits": {
            "aws.protocols#awsQueryError": {
              "code": "InvalidResourceState",
              "httpResponseCode": 400
            },
            "smithy.api#documentation": "<p>License Manager cannot allocate a license to a resource because of its
state. </p>\n          <p>For example, you cannot allocate a license to an instance in the process of shutting\n
down.</p>",
            "smithy.api#error": "client",
            "smithy.api#httpError": 400
          }
        },

        "com.amazonaws.licensemanager#InventoryFilter": {
          "type": "structure",
          "members": {
            "Name": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Name of the filter.</p>",
                "smithy.api#required": {}
              }
            },
            "Condition": {
              "target": "com.amazonaws.licensemanager#InventoryFilterCondition",
              "traits": {
                "smithy.api#documentation": "<p>Condition of the filter.</p>",
                "smithy.api#required": {}
              }
            },
            "Value": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Value of the filter.</p>"
```

```
            }
          }

},
      "traits": {
        "smithy.api#documentation": "<p>An inventory filter.</p>"
      }
    },
    "com.amazonaws.licensemanager#InventoryFilterCondition": {
      "type": "enum",
      "members": {
        "EQUALS": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "EQUALS"
          }
        },
        "NOT_EQUALS": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "NOT_EQUALS"
          }
        },
        "BEGINS_WITH": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "BEGINS_WITH"
          }
        },
        "CONTAINS": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "CONTAINS"
          }
        }
      }
    },
    "com.amazonaws.licensemanager#InventoryFilterList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanager#InventoryFilter"
      }
    },
    "com.amazonaws.licensemanager#Issuer": {
      "type": "structure",
      "members": {
        "Name": {
          "target": "com.amazonaws.licensemanager#String",
```

```
            "traits": {
              "smithy.api#documentation": "<p>Issuer name.</p>",
              "smithy.api#required": {}
            }
          },
          "SignKey": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Asymmetric KMS key from Key Management Service. The KMS key must have a key usage
 of sign and verify, \n        and support the RSASSA-PSS SHA-256 signing algorithm.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Details about the issuer of a license.</p>"
        }
      },
      "com.amazonaws.licensemanager#IssuerDetails": {
        "type": "structure",
        "members": {
          "Name": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Issuer name.</p>"
            }
          },
          "SignKey": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Asymmetric KMS key from Key Management Service. The KMS key must have a key usage of sign and verify, \n        and support the RSASSA-PSS SHA-256 signing algorithm.</p>"
            }
          },
          "KeyFingerprint": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Issuer key fingerprint.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Details associated with the issuer of a license.</p>"
        }
      },
      "com.amazonaws.licensemanager#License": {
        "type": "structure",
```

```
"members": {
    "LicenseArn": {
        "target": "com.amazonaws.licensemanager#Arn",
        "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>"
        }
    },
    "LicenseName": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {

    "smithy.api#documentation": "<p>License name.</p>"
        }
    },
    "ProductName": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
            "smithy.api#documentation": "<p>Product name.</p>"
        }
    },
    "ProductSKU": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
            "smithy.api#documentation": "<p>Product SKU.</p>"
        }
    },
    "Issuer": {
        "target": "com.amazonaws.licensemanager#IssuerDetails",
        "traits": {
            "smithy.api#documentation": "<p>License issuer.</p>"
        }
    },
    "HomeRegion": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {

    "smithy.api#documentation": "<p>Home Region of the license.</p>"
        }
    },
    "Status": {
        "target": "com.amazonaws.licensemanager#LicenseStatus",
        "traits": {
            "smithy.api#documentation": "<p>License status.</p>"
        }
    },
    "Validity": {
        "target": "com.amazonaws.licensemanager#DatetimeRange",
        "traits": {
```

```
                "smithy.api#documentation": "<p>Date and time range during which the license is valid, in ISO8601-
UTC format.</p>"
              }
            },
            "Beneficiary": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>License beneficiary.</p>"
              }
            },
            "Entitlements": {

   "target": "com.amazonaws.licensemanager#EntitlementList",
              "traits": {
                "smithy.api#documentation": "<p>License entitlements.</p>"
              }
            },
            "ConsumptionConfiguration": {
              "target": "com.amazonaws.licensemanager#ConsumptionConfiguration",
              "traits": {
                "smithy.api#documentation": "<p>Configuration for consumption of the license.</p>"
              }
            },
            "LicenseMetadata": {
              "target": "com.amazonaws.licensemanager#MetadataList",
              "traits": {
                "smithy.api#documentation": "<p>License metadata.</p>"
              }
            },
            "CreateTime": {
              "target": "com.amazonaws.licensemanager#ISO8601DateTime",
              "traits": {
                "smithy.api#documentation": "<p>License
 creation time.</p>"
              }
            },
            "Version": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>License version.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>Software license that is managed in License Manager.</p>"
          }
        },
        "com.amazonaws.licensemanager#LicenseConfiguration": {
```

```
"type": "structure",
"members": {
   "LicenseConfigurationId": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {
         "smithy.api#documentation": "<p>Unique ID of the license configuration.</p>"
      }
   },
   "LicenseConfigurationArn": {
      "target": "com.amazonaws.licensemanager#String",
       "traits": {
         "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license configuration.</p>"
      }
   },
   "Name": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {
         "smithy.api#documentation": "<p>Name of the license configuration.</p>"
      }
   },
   "Description": {
      "target": "com.amazonaws.licensemanager#String",
      "traits": {
         "smithy.api#documentation": "<p>Description of the license configuration.</p>"
      }
   },
   "LicenseCountingType": {
      "target": "com.amazonaws.licensemanager#LicenseCountingType",
      "traits": {
         "smithy.api#documentation": "<p>Dimension to use to track the license inventory.</p>"
       }
   },
   "LicenseRules": {
      "target": "com.amazonaws.licensemanager#StringList",
      "traits": {
         "smithy.api#documentation": "<p>License rules.</p>"
      }
   },
   "LicenseCount": {
      "target": "com.amazonaws.licensemanager#BoxLong",
      "traits": {
         "smithy.api#documentation": "<p>Number of licenses managed by the license configuration.</p>"
      }
   },
   "LicenseCountHardLimit": {
      "target": "com.amazonaws.licensemanager#BoxBoolean",
      "traits": {
         "smithy.api#documentation": "<p>Number of available licenses as a hard limit.</p>"
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            }
        },
        "DisassociateWhenNotFound": {
            "target": "com.amazonaws.licensemanager#BoxBoolean",
             "traits": {
                "smithy.api#documentation": "<p>When true, disassociates a resource when software is
uninstalled.</p>"
            }
        },
        "ConsumedLicenses": {
            "target": "com.amazonaws.licensemanager#BoxLong",
            "traits": {
                "smithy.api#documentation": "<p>Number of licenses consumed. </p>"
            }
        },
        "Status": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Status of the license configuration.</p>"
            }
        },
        "OwnerAccountId": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Account ID of the license configuration's owner.</p>"

        }
        },
        "ConsumedLicenseSummaryList": {
            "target": "com.amazonaws.licensemanager#ConsumedLicenseSummaryList",
            "traits": {
                "smithy.api#documentation": "<p>Summaries for licenses consumed by various resources.</p>"
            }
        },
        "ManagedResourceSummaryList": {
            "target": "com.amazonaws.licensemanager#ManagedResourceSummaryList",
            "traits": {
                "smithy.api#documentation": "<p>Summaries for managed resources.</p>"
            }
        },
        "ProductInformationList": {
            "target": "com.amazonaws.licensemanager#ProductInformationList",
            "traits": {
                "smithy.api#documentation": "<p>Product information.</p>"
            }
        },
        "AutomatedDiscoveryInformation": {
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```
            "target": "com.amazonaws.licensemanager#AutomatedDiscoveryInformation",
            "traits": {
              "smithy.api#documentation": "<p>Automated discovery information.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>A license configuration is an abstraction of a customer license agreement that can be\n consumed and enforced by License Manager. Components include specifications for the license\n type (licensing by instance, socket, CPU, or vCPU), allowed tenancy (shared tenancy, \n Dedicated Instance, Dedicated Host, or all of these), host affinity (how long a VM\n must be associated with a host), and the number of licenses purchased and used.</p>"
        }
      },
      "com.amazonaws.licensemanager#LicenseConfigurationAssociation": {
        "type": "structure",
        "members": {
          "ResourceArn":
{
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the resource.</p>"
            }
          },
          "ResourceType": {
            "target": "com.amazonaws.licensemanager#ResourceType",
            "traits": {
              "smithy.api#documentation": "<p>Type of server resource.</p>"
            }
          },
          "ResourceOwnerId": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>ID of the Amazon Web Services account that owns the resource consuming licenses.</p>"
            }
          },
          "AssociationTime": {
            "target": "com.amazonaws.licensemanager#DateTime",
            "traits": {

    "smithy.api#documentation": "<p>Time when the license configuration was associated with the resource.</p>"
            }
          },
          "AmiAssociationScope": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Scope of AMI associations. The possible value is <code>cross-
```

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account</code>.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>Describes an association with a license configuration.</p>"
        }
    },
    "com.amazonaws.licensemanager#LicenseConfigurationAssociations": {
        "type": "list",
        "member": {
            "target": "com.amazonaws.licensemanager#LicenseConfigurationAssociation"
        }
    },
    "com.amazonaws.licensemanager#LicenseConfigurationStatus": {
        "type": "enum",
        "members":
{
            "AVAILABLE": {
                "target": "smithy.api#Unit",
                "traits": {
                    "smithy.api#enumValue": "AVAILABLE"
                }
            },
            "DISABLED": {
                "target": "smithy.api#Unit",
                "traits": {
                    "smithy.api#enumValue": "DISABLED"
                }
            }
        }
    },
    "com.amazonaws.licensemanager#LicenseConfigurationUsage": {
        "type": "structure",
        "members": {
            "ResourceArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the resource.</p>"
                }
            },
            "ResourceType": {
                "target": "com.amazonaws.licensemanager#ResourceType",
                "traits":
{
                    "smithy.api#documentation": "<p>Type of resource.</p>"
                }
            },
```

```
            "ResourceStatus": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Status of the resource.</p>"
               }
            },
            "ResourceOwnerId": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>ID of the account that owns the resource.</p>"
               }
            },
            "AssociationTime": {
               "target": "com.amazonaws.licensemanager#DateTime",
               "traits": {
                  "smithy.api#documentation": "<p>Time when the license configuration was initially associated with
the resource.</p>"
               }
            },

      "ConsumedLicenses": {
               "target": "com.amazonaws.licensemanager#BoxLong",
               "traits": {
                  "smithy.api#documentation": "<p>Number of licenses consumed by the resource.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#documentation": "<p>Details about the usage of a resource associated with a license
configuration.</p>"
         }
      },
      "com.amazonaws.licensemanager#LicenseConfigurationUsageList": {
         "type": "list",
         "member": {
            "target": "com.amazonaws.licensemanager#LicenseConfigurationUsage"
         }
      },
      "com.amazonaws.licensemanager#LicenseConfigurations": {
         "type": "list",
         "member": {
            "target": "com.amazonaws.licensemanager#LicenseConfiguration"
         }
      },
      "com.amazonaws.licensemanager#LicenseConversionContext": {

   "type": "structure",
         "members": {
```

```
        "UsageOperation": {
          "target": "com.amazonaws.licensemanager#UsageOperation",
          "traits": {
            "smithy.api#documentation": "<p>The Usage operation value that corresponds to the license type you
are converting your resource from.  For more information about which platforms correspond to which usage
operation values see <a href=\"https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/billing-info-
fields.html#billing-info\">Sample data: usage operation by platform\n      </a>\n        </p>"
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>Information about a license type conversion task.</p>"
      }
    },
    "com.amazonaws.licensemanager#LicenseConversionTask": {
      "type": "structure",
      "members": {
        "LicenseConversionTaskId": {

     "target": "com.amazonaws.licensemanager#LicenseConversionTaskId",
          "traits": {
            "smithy.api#documentation": "<p>The ID of the license type conversion task.</p>"
          }
        },
        "ResourceArn": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the resource associated
with the license type\n        conversion task.</p>"
          }
        },
        "SourceLicenseContext": {
          "target": "com.amazonaws.licensemanager#LicenseConversionContext",
          "traits": {
            "smithy.api#documentation": "<p>Information about the license type this conversion task converted
from.</p>"
          }
        },
        "DestinationLicenseContext": {
          "target":
 "com.amazonaws.licensemanager#LicenseConversionContext",
          "traits": {
            "smithy.api#documentation": "<p>Information about the license type this conversion task converted
to.</p>"
          }
        },
        "Status": {
          "target": "com.amazonaws.licensemanager#LicenseConversionTaskStatus",
```

```
            "traits": {
                "smithy.api#documentation": "<p>The status of the conversion task.</p>"
            }
        },
        "StatusMessage": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>The status message for the conversion task.</p>"
            }
        },
        "StartTime": {
            "target": "com.amazonaws.licensemanager#DateTime",
            "traits": {
                "smithy.api#documentation":
 "<p>The time the conversion task was started at.</p>"
            }
        },
        "LicenseConversionTime": {
            "target": "com.amazonaws.licensemanager#DateTime",
            "traits": {
                "smithy.api#documentation": "<p>The time the usage operation value of the resource was
changed.</p>"
            }
        },
        "EndTime": {
            "target": "com.amazonaws.licensemanager#DateTime",
            "traits": {
                "smithy.api#documentation": "<p>The time the conversion task was completed.</p>"
            }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>Information about a license type conversion task.</p>"
      }
    },
    "com.amazonaws.licensemanager#LicenseConversionTaskId": {
      "type": "string",
      "traits": {

       "smithy.api#length": {
            "min": 0,
            "max": 50
        },
        "smithy.api#pattern": "^lct-[a-zA-Z0-9]*$"
      }
    },
    "com.amazonaws.licensemanager#LicenseConversionTaskStatus": {
      "type": "enum",
```

```
      "members": {
        "IN_PROGRESS": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "IN_PROGRESS"
          }
        },
        "SUCCEEDED": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "SUCCEEDED"
          }
        },
        "FAILED": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "FAILED"
          }
        }
      }
    },
    "com.amazonaws.licensemanager#LicenseConversionTasks":
{
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanager#LicenseConversionTask"
      }
    },
    "com.amazonaws.licensemanager#LicenseCountingType": {
      "type": "enum",
      "members": {
        "VCPU": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "vCPU"
          }
        },
        "INSTANCE": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Instance"
          }
        },
        "CORE": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "Core"
          }
```

```
        },
        "SOCKET": {
          "target": "smithy.api#Unit",
           "traits": {
             "smithy.api#enumValue": "Socket"
          }
        }
      }
    },
    "com.amazonaws.licensemanager#LicenseDeletionStatus": {
      "type": "enum",
      "members": {
        "PENDING_DELETE": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "PENDING_DELETE"
          }
        },
        "DELETED": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "DELETED"
          }
        }
      }
    },
    "com.amazonaws.licensemanager#LicenseList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanager#License"
      }
    },
    "com.amazonaws.licensemanager#LicenseOperationFailure": {

      "type": "structure",
      "members": {
        "ResourceArn": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the resource.</p>"
          }
        },
        "ResourceType": {
          "target": "com.amazonaws.licensemanager#ResourceType",
          "traits": {
            "smithy.api#documentation": "<p>Resource type.</p>"
          }
        },
```

```
            "ErrorMessage": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Error message.</p>"
              }
            },
            "FailureTime": {
              "target": "com.amazonaws.licensemanager#DateTime",
              "traits": {

      "smithy.api#documentation": "<p>Failure time.</p>"
              }
            },
            "OperationName": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Name of the operation.</p>"
              }
            },
            "ResourceOwnerId": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>ID of the Amazon Web Services account that owns the
resource.</p>"
              }
            },
            "OperationRequestedBy": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>The requester is \"License Manager Automated Discovery\".</p>"
              }
            },
            "MetadataList": {

              "target": "com.amazonaws.licensemanager#MetadataList",
              "traits": {
                "smithy.api#documentation": "<p>Reserved.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>Describes the failure of a license operation.</p>"
          }
        },
        "com.amazonaws.licensemanager#LicenseOperationFailureList": {
          "type": "list",
          "member": {
            "target": "com.amazonaws.licensemanager#LicenseOperationFailure"
```

```
        }
      },
      "com.amazonaws.licensemanager#LicenseSpecification": {
        "type": "structure",
        "members": {
          "LicenseConfigurationArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license
configuration.</p>",

              "smithy.api#required": {}
            }
          },
          "AmiAssociationScope": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Scope of AMI associations. The possible value is <code>cross-
account</code>.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Details for associating a license configuration with a resource.</p>"
        }
      },
      "com.amazonaws.licensemanager#LicenseSpecifications": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#LicenseSpecification"
        }
      },
      "com.amazonaws.licensemanager#LicenseStatus": {
        "type": "enum",
        "members": {
          "AVAILABLE": {
            "target": "smithy.api#Unit",

          "traits": {
              "smithy.api#enumValue": "AVAILABLE"
            }
          },
          "PENDING_AVAILABLE": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "PENDING_AVAILABLE"
            }
          },
```

```
      "DEACTIVATED": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "DEACTIVATED"
        }
      },
      "SUSPENDED": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "SUSPENDED"
        }
      },
      "EXPIRED": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "EXPIRED"
        }
      },

     "PENDING_DELETE": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "PENDING_DELETE"
        }
      },
      "DELETED": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "DELETED"
        }
      }
    }
  },
  "com.amazonaws.licensemanager#LicenseUsage": {
    "type": "structure",
    "members": {
      "EntitlementUsages": {
        "target": "com.amazonaws.licensemanager#EntitlementUsageList",
        "traits": {
          "smithy.api#documentation": "<p>License entitlement usages.</p>"
        }
      }
    },
    "traits": {
      "smithy.api#documentation": "<p>Describes the entitlement usage associated with a license.</p>"

    }
  },
```

```
    "com.amazonaws.licensemanager#LicenseUsageException": {
      "type": "structure",
      "members": {
        "Message": {
          "target": "com.amazonaws.licensemanager#Message"
        }
      },
      "traits": {
        "aws.protocols#awsQueryError": {
          "code": "LicenseUsageFailure",
          "httpResponseCode": 412
        },
        "smithy.api#documentation": "<p>You do not have enough licenses available to support a new resource
launch.</p>",
        "smithy.api#error": "client",
        "smithy.api#httpError": 412
      }
    },
    "com.amazonaws.licensemanager#ListAssociationsForLicenseConfiguration": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#ListAssociationsForLicenseConfigurationRequest"
      },
      "output": {

    "target": "com.amazonaws.licensemanager#ListAssociationsForLicenseConfigurationResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#FilterLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        }
      ],
      "traits": {
```

```
            "smithy.api#documentation": "<p>Lists the resource associations for the
 specified license configuration.</p>\n            <p>Resource associations need not consume licenses from a license
 configuration. \n            For example, an AMI or a stopped instance might not consume a license (depending on \n
 the license rules).</p>"
          }
        },
        "com.amazonaws.licensemanager#ListAssociationsForLicenseConfigurationRequest": {
          "type": "structure",
          "members": {
            "LicenseConfigurationArn": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of a license configuration.</p>",
                "smithy.api#required": {}
              }
            },
            "MaxResults": {
              "target": "com.amazonaws.licensemanager#BoxInteger",
              "traits": {
                "smithy.api#documentation": "<p>Maximum number of results
 to return in a single call.</p>"
              }
            },
            "NextToken": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#input": {}
          }
        },
        "com.amazonaws.licensemanager#ListAssociationsForLicenseConfigurationResponse": {
          "type": "structure",
          "members": {
            "LicenseConfigurationAssociations": {
              "target": "com.amazonaws.licensemanager#LicenseConfigurationAssociations",
              "traits": {
                "smithy.api#documentation": "<p>Information about the associations for the license
 configuration.</p>"
              }
            },
            "NextToken": {

 "target": "com.amazonaws.licensemanager#String",
              "traits": {
```

```
            "smithy.api#documentation": "<p>Token for the next set of results.</p>"
          }
        }
    },
    "traits": {
      "smithy.api#output": {}
    }
  },
  "com.amazonaws.licensemanager#ListDistributedGrants": {
    "type": "operation",
    "input": {
      "target": "com.amazonaws.licensemanager#ListDistributedGrantsRequest"
    },
    "output": {
      "target": "com.amazonaws.licensemanager#ListDistributedGrantsResponse"
    },
    "errors": [
      {
        "target": "com.amazonaws.licensemanager#AccessDeniedException"
      },
      {
        "target": "com.amazonaws.licensemanager#AuthorizationException"
      },
      {
        "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
       },
      {
        "target": "com.amazonaws.licensemanager#RateLimitExceededException"
      },
      {
        "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
      },
      {
        "target": "com.amazonaws.licensemanager#ServerInternalException"
      },
      {
        "target": "com.amazonaws.licensemanager#ValidationException"
      }
    ],
    "traits": {
      "smithy.api#documentation": "<p>Lists the grants distributed for the specified license.</p>"
    }
  },
  "com.amazonaws.licensemanager#ListDistributedGrantsRequest": {
    "type": "structure",
    "members": {
      "GrantArns": {
        "target": "com.amazonaws.licensemanager#ArnList",
```

```
            "traits": {

          "smithy.api#documentation": "<p>Amazon Resource Names (ARNs) of the grants.</p>"
            }
          },
          "Filters": {
            "target": "com.amazonaws.licensemanager#FilterList",
            "traits": {
              "smithy.api#documentation": "<p>Filters to scope the results. The following filters are
supported:</p>\n        <ul>\n          <li>\n            <p>\n              <code>LicenseArn</code>\n            </p>\n
      </li>\n          <li>\n            <p>\n              <code>GrantStatus</code>\n            </p>\n          </li>\n
  <li>\n            <p>\n              <code>GranteePrincipalARN</code>\n            </p>\n          </li>\n
<li>\n            <p>\n              <code>ProductSKU</code>\n            </p>\n          </li>\n          <li>\n
<p>\n              <code>LicenseIssuerName</code>\n
        </p>\n          </li>\n        </ul>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanager#MaxSize100",
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#ListDistributedGrantsResponse": {
        "type": "structure",
        "members": {
          "Grants": {
            "target": "com.amazonaws.licensemanager#GrantList",

      "traits": {
              "smithy.api#documentation": "<p>Distributed grant details.</p>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
```

```
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#ListFailuresForLicenseConfigurationOperations": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#ListFailuresForLicenseConfigurationOperationsRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#ListFailuresForLicenseConfigurationOperationsResponse"
        },
        "errors": [
          {

"target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Lists the license configuration operations that failed.</p>"
        }
      },
      "com.amazonaws.licensemanager#ListFailuresForLicenseConfigurationOperationsRequest": {
        "type": "structure",
        "members": {
          "LicenseConfigurationArn": {
            "target": "com.amazonaws.licensemanager#String",
             "traits": {
               "smithy.api#documentation": "<p>Amazon Resource Name of the license configuration.</p>",
               "smithy.api#required": {}
            }
          },
          "MaxResults": {
```

```
            "target": "com.amazonaws.licensemanager#BoxInteger",
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#ListFailuresForLicenseConfigurationOperationsResponse":
{
        "type": "structure",
        "members": {
          "LicenseOperationFailureList": {
            "target": "com.amazonaws.licensemanager#LicenseOperationFailureList",
            "traits": {
              "smithy.api#documentation": "<p>License configuration operations that failed.</p>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#ListLicenseConfigurations": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#ListLicenseConfigurationsRequest"
        },

    "output": {
          "target": "com.amazonaws.licensemanager#ListLicenseConfigurationsResponse"
        },
        "errors": [
          {
```

```
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#FilterLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists the license configurations
 for your account.</p>"
        }
    },
    "com.amazonaws.licensemanager#ListLicenseConfigurationsRequest": {
        "type": "structure",
        "members": {
            "LicenseConfigurationArns": {
                "target": "com.amazonaws.licensemanager#StringList",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Names (ARN) of the license
 configurations.</p>"
                }
            },
            "MaxResults": {
                "target": "com.amazonaws.licensemanager#BoxInteger",
                "traits": {
                    "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
                }
            },
            "NextToken": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Token for the next
 set of results.</p>"
                }
            },
            "Filters": {
                "target": "com.amazonaws.licensemanager#Filters",
```

```
            "traits": {
                "smithy.api#documentation": "<p>Filters to scope the results. The following filters and logical
operators\n        are supported:</p>\n        <ul>\n        <li>\n        <p>\n
<code>licenseCountingType</code> - The dimension for which licenses are counted.\n        Possible values are
<code>vCPU</code> | <code>Instance</code> | <code>Core</code> | <code>Socket</code>.\n        Logical
operators are <code>EQUALS</code> | <code>NOT_EQUALS</code>.</p>\n        </li>\n        <li>\n
<p>\n        <code>enforceLicenseCount</code> - A Boolean value that indicates whether hard license
enforcement is used. \n        Logical operators are <code>EQUALS</code> |
<code>NOT_EQUALS</code>.</p>\n
  </li>\n        <li>\n        <p>\n        <code>usagelimitExceeded</code> - A Boolean value that
indicates whether the available licenses have been exceeded. \n        Logical operators are
<code>EQUALS</code> | <code>NOT_EQUALS</code>.</p>\n        </li>\n        </ul>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#ListLicenseConfigurationsResponse": {
        "type": "structure",
        "members": {
          "LicenseConfigurations": {
            "target": "com.amazonaws.licensemanager#LicenseConfigurations",
            "traits": {
              "smithy.api#documentation": "<p>Information about the license configurations.</p>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",

           "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#ListLicenseConversionTasks": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#ListLicenseConversionTasksRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#ListLicenseConversionTasksResponse"
        },
```

```
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
           },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Lists the license type conversion tasks for your account.</p>"
        }
      },
      "com.amazonaws.licensemanager#ListLicenseConversionTasksRequest": {
        "type": "structure",
        "members": {
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanager#BoxInteger",
            "traits": {

    "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          },
          "Filters": {
            "target": "com.amazonaws.licensemanager#Filters",
            "traits": {
              "smithy.api#documentation": "<p>\n        Filters to scope the results. Valid filters are
<code>ResourceArns</code> and <code>Status</code>.\n      </p>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
```

```
    },
    "com.amazonaws.licensemanager#ListLicenseConversionTasksResponse": {
      "type": "structure",
      "members": {
        "LicenseConversionTasks": {
          "target": "com.amazonaws.licensemanager#LicenseConversionTasks",
          "traits": {
            "smithy.api#documentation": "<p>Information about the license configuration tasks for your
account.</p>"
          }
        },
        "NextToken": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Token for the next set of results.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanager#ListLicenseManagerReportGenerators": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#ListLicenseManagerReportGeneratorsRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#ListLicenseManagerReportGeneratorsResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target":
"com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
        },
        {
```

```
                "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists the report generators for your account.</p>"
        }
    },
    "com.amazonaws.licensemanager#ListLicenseManagerReportGeneratorsRequest":
{
        "type": "structure",
        "members": {
            "Filters": {
                "target": "com.amazonaws.licensemanager#FilterList",
                "traits": {
                    "smithy.api#documentation": "<p>Filters to scope the results. The following filters are supported:
</p>\n        <ul>\n          <li>\n            <p>\n              <code>LicenseConfigurationArn</code>\n
</p>\n          </li>\n        </ul>"
                }
            },
            "NextToken": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Token for the next set of results.</p>"
                }
            },
            "MaxResults": {
                "target": "com.amazonaws.licensemanager#MaxSize100",
                "traits":
{
                    "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#ListLicenseManagerReportGeneratorsResponse": {
        "type": "structure",
        "members": {
            "ReportGenerators": {
                "target": "com.amazonaws.licensemanager#ReportGeneratorList",
```

```
            "traits": {
                "smithy.api#documentation": "<p>A report generator that creates periodic reports about your license configurations.</p>"
            }
        },
        "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }

    }
    },
    "traits": {
        "smithy.api#output": {}
    }
},
"com.amazonaws.licensemanager#ListLicenseSpecificationsForResource": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanager#ListLicenseSpecificationsForResourceRequest"
    },
    "output": {
        "target": "com.amazonaws.licensemanager#ListLicenseSpecificationsForResourceResponse"
    },
    "errors": [
        {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
         },
        {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
        }
    ],
    "traits": {
        "smithy.api#documentation": "<p>Describes the license configurations for the specified resource.</p>"
    }
},
"com.amazonaws.licensemanager#ListLicenseSpecificationsForResourceRequest": {
    "type": "structure",
```

```
      "members": {
        "ResourceArn": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of a resource that has an
associated license configuration.</p>",
            "smithy.api#required": {}
          }
        },
        "MaxResults": {
          "target": "com.amazonaws.licensemanager#BoxInteger",
          "traits": {

       "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
          }
        },
        "NextToken": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Token for the next set of results.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#ListLicenseSpecificationsForResourceResponse": {
      "type": "structure",
      "members": {
        "LicenseSpecifications": {
          "target": "com.amazonaws.licensemanager#LicenseSpecifications",
          "traits": {
            "smithy.api#documentation": "<p>License configurations associated with a resource.</p>"
          }
        },
        "NextToken": {
           "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Token for the next set of results.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanager#ListLicenseVersions": {
```

```
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanager#ListLicenseVersionsRequest"
    },
    "output": {
        "target": "com.amazonaws.licensemanager#ListLicenseVersionsResponse"
    },
    "errors": [
        {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
         },
        {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
        }
    ],
    "traits": {
        "smithy.api#documentation": "<p>Lists all versions of the specified license.</p>"
    }
},
"com.amazonaws.licensemanager#ListLicenseVersionsRequest": {
    "type": "structure",
    "members": {
        "LicenseArn": {
            "target": "com.amazonaws.licensemanager#Arn",
            "traits": {
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>",
                "smithy.api#required": {}
            }
        },
        "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
             "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
        },
        "MaxResults": {
            "target": "com.amazonaws.licensemanager#MaxSize100",
            "traits": {
                "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
```

```
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#ListLicenseVersionsResponse": {
        "type": "structure",
        "members": {
          "Licenses": {
            "target": "com.amazonaws.licensemanager#LicenseList",
            "traits": {
              "smithy.api#documentation": "<p>License details.</p>"
            }
          },

"NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#ListLicenses": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#ListLicensesRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#ListLicensesResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
```

```
            },
            {
               "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
               "target": "com.amazonaws.licensemanager#ValidationException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Lists the licenses for your account.</p>"
         }
      },
      "com.amazonaws.licensemanager#ListLicensesRequest": {
         "type": "structure",
         "members": {
            "LicenseArns": {
               "target": "com.amazonaws.licensemanager#ArnList",
               "traits": {
                  "smithy.api#documentation": "<p>Amazon Resource Names (ARNs) of the licenses.</p>"
               }
            },

       "Filters": {
               "target": "com.amazonaws.licensemanager#FilterList",
               "traits": {
                  "smithy.api#documentation": "<p>Filters to scope the results. The following filters are
supported:</p>\n        <ul>\n          <li>\n            <p>\n              <code>Beneficiary</code>\n            </p>\n
      </li>\n          <li>\n            <p>\n              <code>ProductSKU</code>\n            </p>\n          </li>\n
   <li>\n            <p>\n              <code>Fingerprint</code>\n            </p>\n          </li>\n          <li>\n
<p>\n              <code>Status</code>\n            </p>\n          </li>\n        </ul>"
               }
            },
            "NextToken": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Token
 for the next set of results.</p>"
               }
            },
            "MaxResults": {
               "target": "com.amazonaws.licensemanager#MaxSize100",
               "traits": {
                  "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#input": {}
```

```
    }
  },
  "com.amazonaws.licensemanager#ListLicensesResponse": {
    "type": "structure",
    "members": {
      "Licenses": {
        "target": "com.amazonaws.licensemanager#LicenseList",
        "traits": {
          "smithy.api#documentation": "<p>License details.</p>"
        }
      },
      "NextToken": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {

"smithy.api#documentation": "<p>Token for the next set of results.</p>"
        }
      }
    },
    "traits": {
      "smithy.api#output": {}
    }
  },
  "com.amazonaws.licensemanager#ListReceivedGrants": {
    "type": "operation",
    "input": {
      "target": "com.amazonaws.licensemanager#ListReceivedGrantsRequest"
    },
    "output": {
      "target": "com.amazonaws.licensemanager#ListReceivedGrantsResponse"
    },
    "errors": [
      {
        "target": "com.amazonaws.licensemanager#AccessDeniedException"
      },
      {
        "target": "com.amazonaws.licensemanager#AuthorizationException"
      },
      {
        "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
      },
      {
        "target": "com.amazonaws.licensemanager#RateLimitExceededException"
       },
      {
        "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
      },
      {
```

```
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          },
          {
            "target": "com.amazonaws.licensemanager#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Lists grants that are received. Received grants are grants created while specifying the\n          recipient as this Amazon Web Services account, your organization, or an organizational unit\n          (OU) to which this member account belongs.</p>"
        }
      },
      "com.amazonaws.licensemanager#ListReceivedGrantsForOrganization": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#ListReceivedGrantsForOrganizationRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#ListReceivedGrantsForOrganizationResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          },
          {
            "target": "com.amazonaws.licensemanager#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Lists the grants received for all accounts in the organization.</p>"
        }
      },
```

```
    "com.amazonaws.licensemanager#ListReceivedGrantsForOrganizationRequest": {
      "type": "structure",
      "members": {
        "LicenseArn": {
          "target": "com.amazonaws.licensemanager#Arn",
          "traits": {
            "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the received license.</p>",
            "smithy.api#required": {}
          }
        },
        "Filters": {
          "target": "com.amazonaws.licensemanager#FilterList",
          "traits": {
            "smithy.api#documentation": "<p>Filters to scope the results. The following filters are
supported:</p>\n
    <ul>\n        <li>\n        <p>\n        <code>ParentArn</code>\n        </p>\n        </li>\n
<li>\n        <p>\n        <code>GranteePrincipalArn</code>\n        </p>\n        </li>\n        </ul>"
          }
        },
        "NextToken": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Token for the next set of results.</p>"
          }
        },
        "MaxResults": {
          "target": "com.amazonaws.licensemanager#MaxSize100",
          "traits": {
            "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#ListReceivedGrantsForOrganizationResponse":
{
      "type": "structure",
      "members": {
        "Grants": {
          "target": "com.amazonaws.licensemanager#GrantList",
          "traits": {
            "smithy.api#documentation": "<p>Lists the grants the organization has received.</p>"
          }
        },
        "NextToken": {
          "target": "com.amazonaws.licensemanager#String",
```

```
            "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
        }
      },
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanager#ListReceivedGrantsRequest": {
      "type": "structure",
      "members": {
        "GrantArns": {
          "target": "com.amazonaws.licensemanager#ArnList",
           "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Names (ARNs) of the grants.</p>"
          }
        },
        "Filters": {
          "target": "com.amazonaws.licensemanager#FilterList",
          "traits": {
            "smithy.api#documentation": "<p>Filters to scope the results. The following filters are
supported:</p>\n        <ul>\n          <li>\n            <p>\n              <code>ProductSKU</code>\n            </p>\n
        </li>\n          <li>\n            <p>\n              <code>LicenseIssuerName</code>\n            </p>\n
</li>\n          <li>\n            <p>\n              <code>LicenseArn</code>\n            </p>\n          </li>\n
<li>\n            <p>\n              <code>GrantStatus</code>\n            </p>\n          </li>\n          <li>\n
<p>\n
        <code>GranterAccountId</code>\n            </p>\n          </li>\n        </ul>"
          }
        },
        "NextToken": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Token for the next set of results.</p>"
          }
        },
        "MaxResults": {
          "target": "com.amazonaws.licensemanager#MaxSize100",
          "traits": {
            "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#ListReceivedGrantsResponse": {
```

```
    "type": "structure",
    "members": {
      "Grants": {
        "target": "com.amazonaws.licensemanager#GrantList",
         "traits": {
          "smithy.api#documentation": "<p>Received grant details.</p>"
        }
      },
      "NextToken": {
        "target": "com.amazonaws.licensemanager#String",
        "traits": {
          "smithy.api#documentation": "<p>Token for the next set of results.</p>"
        }
      }
    },
    "traits": {
      "smithy.api#output": {}
    }
  },
  "com.amazonaws.licensemanager#ListReceivedLicenses": {
    "type": "operation",
    "input": {
      "target": "com.amazonaws.licensemanager#ListReceivedLicensesRequest"
    },
    "output": {
      "target": "com.amazonaws.licensemanager#ListReceivedLicensesResponse"
    },
    "errors": [
      {
        "target": "com.amazonaws.licensemanager#AccessDeniedException"
       },
      {
        "target": "com.amazonaws.licensemanager#AuthorizationException"
      },
      {
        "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
      },
      {
        "target": "com.amazonaws.licensemanager#RateLimitExceededException"
      },
      {
        "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
      },
      {
        "target": "com.amazonaws.licensemanager#ServerInternalException"
      },
      {
        "target": "com.amazonaws.licensemanager#ValidationException"
```

```
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists received licenses.</p>"
        }
    },
    "com.amazonaws.licensemanager#ListReceivedLicensesForOrganization":
{
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#ListReceivedLicensesForOrganizationRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#ListReceivedLicensesForOrganizationResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
            },
            {

    "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists the licenses received for all accounts in the organization.</p>"
        }
    },
    "com.amazonaws.licensemanager#ListReceivedLicensesForOrganizationRequest": {
        "type": "structure",
        "members": {
            "Filters": {
                "target": "com.amazonaws.licensemanager#FilterList",
```

```
            "traits": {
                "smithy.api#documentation": "<p>Filters to scope the results. The following filters are
supported:</p>\n        <ul>\n          <li>\n            <p>\n              <code>Beneficiary</code>\n            </p>\n
      </li>\n          <li>\n            <p>\n              <code>ProductSKU</code>\n
          </p>\n          </li>\n        </ul>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanager#MaxSize100",
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#ListReceivedLicensesForOrganizationResponse": {
        "type": "structure",
        "members": {
          "Licenses": {
            "target": "com.amazonaws.licensemanager#GrantedLicenseList",
             "traits": {
              "smithy.api#documentation": "<p>Lists the licenses the organization has received.</p>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#ListReceivedLicensesRequest": {
        "type": "structure",
        "members": {
          "LicenseArns": {
```

```
            "target": "com.amazonaws.licensemanager#ArnList",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Names (ARNs) of the licenses.</p>"
            }
          },

         "Filters": {
            "target": "com.amazonaws.licensemanager#FilterList",
            "traits": {
              "smithy.api#documentation": "<p>Filters to scope the results. The following filters are
supported:</p>\n        <ul>\n          <li>\n            <p>\n              <code>ProductSKU</code>\n            </p>\n
        </li>\n          <li>\n            <p>\n              <code>Status</code>\n            </p>\n          </li>\n
<li>\n            <p>\n              <code>Fingerprint</code>\n            </p>\n          </li>\n          <li>\n
<p>\n              <code>IssuerName</code>\n            </p>\n          </li>\n          <li>\n            <p>\n
<code>Beneficiary</code>\n            </p>\n          </li>\n        </ul>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
             "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanager#MaxSize100",
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#ListReceivedLicensesResponse": {
        "type": "structure",
        "members": {
          "Licenses": {
            "target": "com.amazonaws.licensemanager#GrantedLicenseList",
            "traits": {
              "smithy.api#documentation": "<p>Received license details.</p>"
            }
          },

          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
```

```
            }
        }
    },
    "traits": {
        "smithy.api#output": {}
    }
},
"com.amazonaws.licensemanager#ListResourceInventory": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanager#ListResourceInventoryRequest"
    },
    "output": {
        "target": "com.amazonaws.licensemanager#ListResourceInventoryResponse"
    },
    "errors": [
        {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
             "target": "com.amazonaws.licensemanager#FailedDependencyException"
        },
        {
            "target": "com.amazonaws.licensemanager#FilterLimitExceededException"
        },
        {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
        },
        {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
        }
    ],
    "traits": {
        "smithy.api#documentation": "<p>Lists resources managed using Systems Manager inventory.</p>"
    }
},
"com.amazonaws.licensemanager#ListResourceInventoryRequest": {
    "type": "structure",
    "members": {
        "MaxResults": {
            "target": "com.amazonaws.licensemanager#BoxInteger",
```

```
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          },
          "Filters": {
            "target": "com.amazonaws.licensemanager#InventoryFilterList",
            "traits": {
              "smithy.api#documentation": "<p>Filters to scope the results. The following filters and logical
operators\n        are supported:</p>\n        <ul>\n        <li>\n        <p>\n        <code>account_id</code>
- The ID of the Amazon Web Services account that owns the resource.\n        Logical operators are
<code>EQUALS</code> | <code>NOT_EQUALS</code>.</p>\n
        </li>\n        <li>\n        <p>\n        <code>application_name</code> - The name of the
application. \n        Logical operators are <code>EQUALS</code> | <code>BEGINS_WITH</code>.</p>\n
    </li>\n        <li>\n        <p>\n        <code>license_included</code> - The type of license included. \n
        Logical operators are <code>EQUALS</code> | <code>NOT_EQUALS</code>.\n        Possible values
are <code>sql-server-enterprise</code> | \n        <code>sql-server-standard</code> | \n        <code>sql-
server-web</code> |  \n        <code>windows-server-datacenter</code>.</p>\n        </li>\n        <li>\n
    <p>\n        <code>platform</code> - The platform of the resource.\n        Logical operators are
<code>EQUALS</code> | <code>BEGINS_WITH</code>.</p>\n        </li>\n        <li>\n        <p>\n
      <code>resource_id</code> - The ID of the resource. \n        Logical operators are
<code>EQUALS</code> | <code>NOT_EQUALS</code>.</p>\n        </li>\n        <li>\n        <p>\n
     <code>tag:<key></code> - The key/value combination of a tag assigned \n        to the resource. Logical
operators are <code>EQUALS</code> (single account) or\n        <code>EQUALS</code> |
<code>NOT_EQUALS</code> (cross account).</p>\n        </li>\n        </ul>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#ListResourceInventoryResponse": {
        "type": "structure",
        "members": {
          "ResourceInventoryList": {
            "target": "com.amazonaws.licensemanager#ResourceInventoryList",
            "traits": {
              "smithy.api#documentation": "<p>Information
 about the resources.</p>"
            }
          },
          "NextToken": {
```

```
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#ListTagsForResource": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#ListTagsForResourceRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#ListTagsForResourceResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Lists the tags for the specified license configuration.</p>"
        }
      },
      "com.amazonaws.licensemanager#ListTagsForResourceRequest": {
        "type": "structure",
        "members": {
          "ResourceArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license
configuration.</p>",
```

```
    "smithy.api#required": {}
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#ListTagsForResourceResponse": {
        "type": "structure",
        "members": {
            "Tags": {
                "target": "com.amazonaws.licensemanager#TagList",
                "traits": {
                    "smithy.api#documentation": "<p>Information about the tags.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#ListTokens": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#ListTokensRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#ListTokensResponse"
        },
        "errors":
[
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
```

```
      "traits": {
        "smithy.api#documentation": "<p>Lists your tokens.</p>"
      }
    },
    "com.amazonaws.licensemanager#ListTokensRequest": {
      "type": "structure",
      "members": {
        "TokenIds": {
          "target": "com.amazonaws.licensemanager#StringList",
          "traits": {

            "smithy.api#documentation": "<p>Token IDs.</p>"
          }
        },
        "Filters": {
          "target": "com.amazonaws.licensemanager#FilterList",
          "traits": {
            "smithy.api#documentation": "<p>Filters to scope the results. The following filter is supported:</p>\n
    <ul>\n        <li>\n        <p>\n        <code>LicenseArns</code>\n        </p>\n        </li>\n
</ul>"
          }
        },
        "NextToken": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Token for the next set of results.</p>"
          }
        },
        "MaxResults": {
          "target": "com.amazonaws.licensemanager#MaxSize100",
          "traits": {
            "smithy.api#documentation":
 "<p>Maximum number of results to return in a single call.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#ListTokensResponse": {
      "type": "structure",
      "members": {
        "Tokens": {
          "target": "com.amazonaws.licensemanager#TokenList",
          "traits": {
            "smithy.api#documentation": "<p>Received token details.</p>"
          }
```

```
            },
            "NextToken": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Token for the next set of results.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#output": {}
         }
      },
      "com.amazonaws.licensemanager#ListUsageForLicenseConfiguration":
{
         "type": "operation",
         "input": {
            "target": "com.amazonaws.licensemanager#ListUsageForLicenseConfigurationRequest"
         },
         "output": {
            "target": "com.amazonaws.licensemanager#ListUsageForLicenseConfigurationResponse"
         },
         "errors": [
            {
               "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
               "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
               "target": "com.amazonaws.licensemanager#FilterLimitExceededException"
            },
            {
               "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
               "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
             {
               "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Lists all license usage records for a license configuration, displaying
license\n consumption details by resource at a selected point in time. Use this action to audit the\n current
license consumption for any license inventory and configuration.</p>"
         }
      },
      "com.amazonaws.licensemanager#ListUsageForLicenseConfigurationRequest": {
```

```
        "type": "structure",
        "members": {
          "LicenseConfigurationArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license
configuration.</p>",
              "smithy.api#required": {}
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanager#BoxInteger",
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          },
          "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          },
          "Filters": {
            "target": "com.amazonaws.licensemanager#Filters",
            "traits": {
              "smithy.api#documentation": "<p>Filters to scope the results. The following filters and logical
operators\n        are supported:</p>\n        <ul>\n          <li>\n            <p>\n
<code>resourceArn</code> - The ARN of the license configuration resource.\n
          Logical operators are <code>EQUALS</code> | <code>NOT_EQUALS</code>.</p>\n          </li>\n
<li>\n            <p>\n              <code>resourceType</code> - The resource type
(<code>EC2_INSTANCE</code> | <code>EC2_HOST</code> | <code>EC2_AMI</code> |
<code>SYSTEMS_MANAGER_MANAGED_INSTANCE</code>). \n            Logical operators are
<code>EQUALS</code> | <code>NOT_EQUALS</code>.</p>\n          </li>\n          <li>\n            <p>\n
    <code>resourceAccount</code> - The ID of the account that owns the resource. \n            Logical operators
are <code>EQUALS</code> | <code>NOT_EQUALS</code>.</p>\n          </li>\n        </ul>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#ListUsageForLicenseConfigurationResponse": {
        "type": "structure",
        "members": {

 "LicenseConfigurationUsageList": {
            "target": "com.amazonaws.licensemanager#LicenseConfigurationUsageList",
```

```
            "traits": {
                "smithy.api#documentation": "<p>Information about the license configurations.</p>"
            }
        },
        "NextToken": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#output": {}
    }
},
"com.amazonaws.licensemanager#Location": {
    "type": "string"
},
"com.amazonaws.licensemanager#Long": {
    "type": "long"
},
"com.amazonaws.licensemanager#ManagedResourceSummary": {
    "type": "structure",
    "members": {
        "ResourceType":
{
            "target": "com.amazonaws.licensemanager#ResourceType",
            "traits": {
                "smithy.api#documentation": "<p>Type of resource associated with a license.</p>"
            }
        },
        "AssociationCount": {
            "target": "com.amazonaws.licensemanager#BoxLong",
            "traits": {
                "smithy.api#documentation": "<p>Number of resources associated with licenses.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#documentation": "<p>Summary information about a managed resource.</p>"
    }
},
"com.amazonaws.licensemanager#ManagedResourceSummaryList": {
    "type": "list",
    "member": {
        "target": "com.amazonaws.licensemanager#ManagedResourceSummary"
    }
},
```

```
"com.amazonaws.licensemanager#MaxSize100": {

"type": "integer",
   "traits": {
      "smithy.api#range": {
         "min": 1,
         "max": 100
      }
   }
},
"com.amazonaws.licensemanager#MaxSize3StringList": {
   "type": "list",
   "member": {
      "target": "com.amazonaws.licensemanager#String"
   },
   "traits": {
      "smithy.api#length": {
         "min": 0,
         "max": 3
      }
   }
},
"com.amazonaws.licensemanager#Message": {
   "type": "string"
},
"com.amazonaws.licensemanager#Metadata": {
   "type": "structure",
   "members": {
      "Name": {
         "target": "com.amazonaws.licensemanager#String",
         "traits": {
            "smithy.api#documentation": "<p>The key name.</p>"
         }
      },

"Value": {
         "target": "com.amazonaws.licensemanager#String",
         "traits": {
            "smithy.api#documentation": "<p>The value.</p>"
         }
      }
   },
   "traits": {
      "smithy.api#documentation": "<p>Describes key/value pairs.</p>"
   }
},
"com.amazonaws.licensemanager#MetadataList": {
   "type": "list",
```

```
        "member": {
            "target": "com.amazonaws.licensemanager#Metadata"
        }
    },
    "com.amazonaws.licensemanager#NoEntitlementsAllowedException": {
        "type": "structure",
        "members": {
            "Message": {
                "target": "com.amazonaws.licensemanager#Message"
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>There are no entitlements found for this license, or the entitlement maximum count is reached.</p>",
            "smithy.api#error": "client",
            "smithy.api#httpError": 400
        }
    },
    "com.amazonaws.licensemanager#Options": {
        "type": "structure",
        "members": {
            "ActivationOverrideBehavior": {
                "target": "com.amazonaws.licensemanager#ActivationOverrideBehavior",
                "traits": {
                    "smithy.api#documentation": "<p>An activation option for your grant that determines the behavior of activating a grant.\n Activation options can only be used with granted licenses sourced from the Amazon Web Services Marketplace. Additionally, the operation must specify the value of <code>ACTIVE</code> for the\n <code>Status</code> parameter.</p>\n <ul>\n <li>\n <p>As a license administrator, you can optionally specify an\n <code>ActivationOverrideBehavior</code> when activating a grant.</p>\n </li>\n <li>\n <p>As a grantor, you can optionally specify an\n <code>ActivationOverrideBehavior</code> when you activate a grant for a grantee\n account in your organization.</p>\n </li>\n <li>\n <p>As a grantee, if the grantor creating the distributed grant doesnt specify an\n <code>ActivationOverrideBehavior</code>, you can optionally specify one when you\n are activating the grant.</p>\n </li>\n </ul>\n <dl>\n <dt>DISTRIBUTED_GRANTS_ONLY</dt>\n <dd>\n <p>Use this value to activate a grant without replacing any member accounts\n active grants for the same product.</p>\n </dd>\n <dt>ALL_GRANTS_PERMITTED_BY_ISSUER</dt>\n <dd>\n <p>Use this value to activate a grant and disable other active grants in any\n member accounts\n for the same product. This action will also replace their\n previously activated grants with this activated grant.</p>\n </dd>\n </dl>"
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>The options you can specify when you create a new version of a grant, such as activation\n override behavior. For more information, see <a href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/granted-licenses.html\">Granted licenses in License Manager</a> in the <i>License Manager User Guide</i>.</p>"
```

```
        }
      },
      "com.amazonaws.licensemanager#OrganizationConfiguration": {
        "type": "structure",
        "members": {
          "EnableIntegration": {
            "target": "com.amazonaws.licensemanager#Boolean",
            "traits": {
              "smithy.api#default": false,
              "smithy.api#documentation":
"<p>Enables Organizations integration.</p>",
              "smithy.api#required": {}
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Configuration information for Organizations.</p>"
        }
      },
      "com.amazonaws.licensemanager#PrincipalArnList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#Arn"
        },
        "traits": {
          "smithy.api#length": {
            "min": 1,
            "max": 1
          }
        }
      },
      "com.amazonaws.licensemanager#ProductInformation": {
        "type": "structure",
        "members": {
          "ResourceType": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Resource type. The
possible values are <code>SSM_MANAGED</code> | <code>RDS</code>.</p>",
              "smithy.api#required": {}
            }
          },
          "ProductInformationFilterList": {
            "target": "com.amazonaws.licensemanager#ProductInformationFilterList",
            "traits": {
              "smithy.api#documentation": "<p>A Product information filter consists of a
<code>ProductInformationFilterComparator</code> which is a logical operator, a
<code>ProductInformationFilterName</code> which specifies the type of filter being declared, and a
```

<code>ProductInformationFilterValue</code> that specifies the value to filter on. \n Accepted values for <code>ProductInformationFilterName</code> are listed here along with descriptions and valid options for <code>ProductInformationFilterComparator</code>. \n The following filters and are supported when the resource type \n is <code>SSM_MANAGED</code>: \n
\n \n \n <code>Application Name</code> - The name of the application.\n Logical operator is <code>EQUALS</code>. \n \n \n \n <code>Application Publisher</code> - The publisher of the application.\n Logical operator is <code>EQUALS</code>. \n \n \n \n <code>Application Version</code> - The version of the application.\n Logical operator is <code>EQUALS</code>. \n \n \n \n <code>Platform Name</code> - The name of the platform.\n Logical operator is <code>EQUALS</code>. \n \n \n \n <code>Platform Type</code> - The platform type.\n Logical operator is <code>EQUALS</code>. \n
\n \n \n <code>Tag:key</code> - The key of a tag attached to an Amazon Web Services resource you wish to exclude from automated discovery. Logical operator is <code>NOT_EQUALS</code>. The key for your tag must be appended to <code>Tag:</code> following the example: <code>Tag:name-of-your-key</code>. <code>ProductInformationFilterValue</code> is optional if you are not using values for the key.\n \n \n \n \n <code>AccountId</code> - The 12-digit ID of an Amazon Web Services account you wish to exclude from automated discovery.\n Logical operator is <code>NOT_EQUALS</code>. \n \n \n \n <code>License Included</code> - The type of license included.\n Logical operators are <code>EQUALS</code> and <code>NOT_EQUALS</code>.\n Possible values are: <code>sql-server-enterprise</code> | \n <code>sql-server-standard</code> | \n <code>sql-server-web</code> | \n <code>windows-server-datacenter</code>. \n \n \n The following filters and logical operators are supported when the resource type\n is <code>RDS</code>: \n \n \n \n <code>Engine Edition</code> - The edition of the database engine.\n Logical operator is <code>EQUALS</code>.\n Possible values are: <code>oracle-ee</code> | <code>oracle-se</code> | <code>oracle-se1</code> | <code>oracle-se2</code>. \n \n \n \n <code>License Pack</code> - The license pack.\n Logical operator is <code>EQUALS</code>.\n Possible values are: <code>data guard</code> | \n <code>diagnostic pack sqlt</code> | \n
<code>tuning pack sqlt</code> | \n <code>ols</code> | \n <code>olap</code>. \n
\n ",
"smithy.api#required": {}
}
}
},
"traits": {
"smithy.api#documentation": " Describes product information for a license configuration. "
}
},
"com.amazonaws.licensemanager#ProductInformationFilter": {
"type": "structure",
"members": {
"ProductInformationFilterName": {
"target": "com.amazonaws.licensemanager#String",
"traits": {
"smithy.api#documentation": " Filter name. ",

```
            "smithy.api#required": {}
          }
        },
        "ProductInformationFilterValue": {
          "target": "com.amazonaws.licensemanager#StringList",

       "traits": {
            "smithy.api#documentation": "<p>Filter value.</p>"
          }
        },
        "ProductInformationFilterComparator": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Logical operator.</p>",
            "smithy.api#required": {}
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>Describes product information filters.</p>"
      }
    },
    "com.amazonaws.licensemanager#ProductInformationFilterList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanager#ProductInformationFilter"
      }
    },
    "com.amazonaws.licensemanager#ProductInformationList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanager#ProductInformation"
       }
    },
    "com.amazonaws.licensemanager#ProvisionalConfiguration": {
      "type": "structure",
      "members": {
        "MaxTimeToLiveInMinutes": {
          "target": "com.amazonaws.licensemanager#BoxInteger",
          "traits": {
            "smithy.api#documentation": "<p>Maximum time for the provisional configuration, in minutes.</p>",
            "smithy.api#required": {}
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>Details about a provisional configuration.</p>"
      }
```

```
    },
    "com.amazonaws.licensemanager#RateLimitExceededException": {
      "type": "structure",
      "members": {
        "Message": {
          "target": "com.amazonaws.licensemanager#Message"
        }
      },
      "traits": {
        "aws.protocols#awsQueryError": {
          "code": "RateLimitExceeded",
          "httpResponseCode": 429
        },
        "smithy.api#documentation": "<p>Too many requests have been submitted. Try again after a brief
wait.</p>",
        "smithy.api#error": "client",
        "smithy.api#httpError": 429
      }
    },
    "com.amazonaws.licensemanager#ReceivedMetadata": {
      "type": "structure",
      "members": {
        "ReceivedStatus": {
          "target": "com.amazonaws.licensemanager#ReceivedStatus",
          "traits": {
            "smithy.api#documentation": "<p>Received status.</p>"
          }
        },
        "ReceivedStatusReason": {
          "target": "com.amazonaws.licensemanager#StatusReasonMessage",
          "traits": {
            "smithy.api#documentation": "<p>Received
 status reason.</p>"
          }
        },
        "AllowedOperations": {
          "target": "com.amazonaws.licensemanager#AllowedOperationList",
          "traits": {
            "smithy.api#documentation": "<p>Allowed operations.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>Metadata associated with received licenses and grants.</p>"
      }
    },
    "com.amazonaws.licensemanager#ReceivedStatus": {
      "type": "enum",
```

```
        "members": {
          "PENDING_WORKFLOW": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "PENDING_WORKFLOW"
            }
          },
          "PENDING_ACCEPT": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue":
"PENDING_ACCEPT"
            }
          },
          "REJECTED": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "REJECTED"
            }
          },
          "ACTIVE": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "ACTIVE"
            }
          },
          "FAILED_WORKFLOW": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "FAILED_WORKFLOW"
            }
          },
          "DELETED": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "DELETED"
            }
          },
          "DISABLED": {
            "target": "smithy.api#Unit",
             "traits": {
              "smithy.api#enumValue": "DISABLED"
            }
          },
          "WORKFLOW_COMPLETED": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "WORKFLOW_COMPLETED"
```

```
            }
          }
        }
      },
      "com.amazonaws.licensemanager#RedirectException": {
        "type": "structure",
        "members": {
          "Location": {
            "target": "com.amazonaws.licensemanager#Location",
            "traits": {
              "smithy.api#httpHeader": "Location"
            }
          },
          "Message": {
            "target": "com.amazonaws.licensemanager#Message"
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>This is not the correct Region for the resource. Try again.</p>",
           "smithy.api#error": "client",
          "smithy.api#httpError": 308
        }
      },
      "com.amazonaws.licensemanager#RejectGrant": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#RejectGrantRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#RejectGrantResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target":
"com.amazonaws.licensemanager#ResourceLimitExceededException"
          },
```

```
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            },
            {
                "target": "com.amazonaws.licensemanager#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Rejects the specified grant.</p>"
        }
    },
    "com.amazonaws.licensemanager#RejectGrantRequest": {
        "type": "structure",
        "members": {
            "GrantArn": {
                "target": "com.amazonaws.licensemanager#Arn",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the grant.</p>",
                    "smithy.api#required": {}
                }
            }
        },
        "traits": {
            "smithy.api#input": {}

}
    },
    "com.amazonaws.licensemanager#RejectGrantResponse": {
        "type": "structure",
        "members": {
            "GrantArn": {
                "target": "com.amazonaws.licensemanager#Arn",
                "traits": {
                    "smithy.api#documentation": "<p>Grant ARN.</p>"
                }
            },
            "Status": {
                "target": "com.amazonaws.licensemanager#GrantStatus",
                "traits": {
                    "smithy.api#documentation": "<p>Grant status.</p>"
                }
            },
            "Version": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Grant version.</p>"
                }
            }
```

```
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#RenewType":
{
        "type": "enum",
        "members": {
          "NONE": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "None"
            }
          },
          "WEEKLY": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "Weekly"
            }
          },
          "MONTHLY": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "Monthly"
            }
          }
        }
      },
      "com.amazonaws.licensemanager#ReportContext": {
        "type": "structure",
        "members": {
          "licenseConfigurationArns": {
            "target": "com.amazonaws.licensemanager#ArnList",
            "traits": {

        "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license configuration that this
generator reports on.</p>",
              "smithy.api#required": {}
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Details of the license configuration that this generator reports on.</p>"
        }
      },
      "com.amazonaws.licensemanager#ReportFrequency": {
        "type": "structure",
```

```
        "members": {
          "value": {
            "target": "com.amazonaws.licensemanager#Integer",
            "traits": {
              "smithy.api#documentation": "<p>Number of times within the frequency period that a report is
generated.  \n         The only supported value is <code>1</code>.</p>"
            }
          },
          "period": {
            "target": "com.amazonaws.licensemanager#ReportFrequencyType",

           "traits": {
              "smithy.api#documentation": "<p>Time period between each report. The period can be daily, weekly,
or monthly.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Details about how frequently reports are generated.</p>"
        }
      },
      "com.amazonaws.licensemanager#ReportFrequencyType": {
        "type": "enum",
        "members": {
          "DAY": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "DAY"
            }
          },
          "WEEK": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "WEEK"
            }
          },
          "MONTH": {
            "target": "smithy.api#Unit",
            "traits":
{
              "smithy.api#enumValue": "MONTH"
            }
          }
        }
      },
      "com.amazonaws.licensemanager#ReportGenerator": {
        "type": "structure",
        "members": {
```

```
            "ReportGeneratorName": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Name of the report generator.</p>"
               }
            },
            "ReportType": {
               "target": "com.amazonaws.licensemanager#ReportTypeList",
               "traits": {
                  "smithy.api#documentation": "<p>Type of reports that are generated.</p>"
               }
            },
            "ReportContext": {
               "target": "com.amazonaws.licensemanager#ReportContext",
               "traits": {
                  "smithy.api#documentation": "<p>License
configuration type for this generator.</p>"
               }
            },
            "ReportFrequency": {
               "target": "com.amazonaws.licensemanager#ReportFrequency",
               "traits": {
                  "smithy.api#documentation": "<p>Details about how frequently reports are generated.</p>"
               }
            },
            "LicenseManagerReportGeneratorArn": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the report generator.</p>"
               }
            },
            "LastRunStatus": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Status of the last report generation attempt.</p>"
               }
            },
            "LastRunFailureReason":
{
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Failure message for the last report generation attempt.</p>"
               }
            },
            "LastReportGenerationTime": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Time the last report was generated at.</p>"
```

```
            }
          },
          "ReportCreatorAccount": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>The Amazon Web Services account ID used to create the report
generator.</p>"
            }
          },
          "Description": {
            "target": "com.amazonaws.licensemanager#String",

       "traits": {
              "smithy.api#documentation": "<p>Description of the report generator.</p>"
            }
          },
          "S3Location": {
            "target": "com.amazonaws.licensemanager#S3Location",
            "traits": {
              "smithy.api#documentation": "<p>Details of the S3 bucket that report generator reports are published
to.</p>"
            }
          },
          "CreateTime": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Time the report was created.</p>"
            }
          },
          "Tags": {
            "target": "com.amazonaws.licensemanager#TagList",
            "traits": {
              "smithy.api#documentation": "<p>Tags associated with the report generator.</p>"
            }

     }
        },
        "traits": {
          "smithy.api#documentation": "<p>Describe the details of a report generator.</p>"
        }
      },
      "com.amazonaws.licensemanager#ReportGeneratorList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#ReportGenerator"
        }
      },
      "com.amazonaws.licensemanager#ReportGeneratorName": {
```

```
      "type": "string",
      "traits": {
        "smithy.api#length": {
          "min": 1,
          "max": 100
        }
      }
    },
    "com.amazonaws.licensemanager#ReportType": {
      "type": "enum",
      "members": {
        "LICENSE_CONFIGURATION_SUMMARY_REPORT": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "LicenseConfigurationSummaryReport"
          }

    },
        "LICENSE_CONFIGURATION_USAGE_REPORT": {
          "target": "smithy.api#Unit",
          "traits": {
            "smithy.api#enumValue": "LicenseConfigurationUsageReport"
          }
        }
      }
    },
    "com.amazonaws.licensemanager#ReportTypeList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanager#ReportType"
      }
    },
    "com.amazonaws.licensemanager#ResourceInventory": {
      "type": "structure",
      "members": {
        "ResourceId": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>ID of the resource.</p>"
          }
        },
        "ResourceType": {
          "target": "com.amazonaws.licensemanager#ResourceType",
          "traits":
{
            "smithy.api#documentation": "<p>Type of resource.</p>"
          }
        },
```

```
        "ResourceArn": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the resource.</p>"
          }
        },
        "Platform": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Platform of the resource.</p>"
          }
        },
        "PlatformVersion": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Platform version of the resource in the inventory.</p>"
          }
        },
        "ResourceOwningAccountId":
{
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>ID of the account that owns the resource.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>Details about a resource.</p>"
      }
    },
    "com.amazonaws.licensemanager#ResourceInventoryList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanager#ResourceInventory"
      }
    },
    "com.amazonaws.licensemanager#ResourceLimitExceededException": {
      "type": "structure",
      "members": {
        "Message": {
          "target": "com.amazonaws.licensemanager#Message"
        }
      },
      "traits": {
        "aws.protocols#awsQueryError": {
          "code": "ResourceLimitExceeded",
```

```
        "httpResponseCode": 400
      },
      "smithy.api#documentation": "<p>Your resource limits have been exceeded.</p>",
      "smithy.api#error": "client",
      "smithy.api#httpError": 400
    }
  },
  "com.amazonaws.licensemanager#ResourceNotFoundException": {
    "type": "structure",
    "members": {
      "Message": {
        "target": "com.amazonaws.licensemanager#Message"
      }
    },
    "traits": {
      "aws.protocols#awsQueryError": {
        "code": "InvalidResource.NotFound",
        "httpResponseCode": 400
      },
      "smithy.api#documentation": "<p>The resource cannot be found.</p>",
      "smithy.api#error": "client",
      "smithy.api#httpError": 400
    }
  },
  "com.amazonaws.licensemanager#ResourceType": {
    "type": "enum",
    "members": {
      "EC2_INSTANCE": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "EC2_INSTANCE"
        }
      },
      "EC2_HOST": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "EC2_HOST"
        }
      },
      "EC2_AMI": {
        "target": "smithy.api#Unit",
        "traits": {
          "smithy.api#enumValue": "EC2_AMI"
        }
      },
      "RDS": {
        "target": "smithy.api#Unit",
        "traits": {
```

```
                "smithy.api#enumValue": "RDS"
              }
            },
            "SYSTEMS_MANAGER_MANAGED_INSTANCE": {
              "target": "smithy.api#Unit",
              "traits": {
                "smithy.api#enumValue": "SYSTEMS_MANAGER_MANAGED_INSTANCE"
              }
            }
          }
        },
        "com.amazonaws.licensemanager#S3Location": {
          "type": "structure",
          "members": {
            "bucket": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Name of the S3 bucket reports are published to.</p>"
              }
            },
            "keyPrefix": {
              "target": "com.amazonaws.licensemanager#String",
              "traits": {
                "smithy.api#documentation": "<p>Prefix of the S3 bucket reports are published to.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>Details of the S3 bucket that report generator reports are published
to.</p>"
          }
        },
        "com.amazonaws.licensemanager#ServerInternalException": {
          "type": "structure",
          "members": {
            "Message": {
              "target": "com.amazonaws.licensemanager#Message"
            }
          },
          "traits": {
            "aws.protocols#awsQueryError": {
              "code": "InternalError",
              "httpResponseCode": 500
            },
            "smithy.api#documentation": "<p>The server experienced an internal error. Try again.</p>",
            "smithy.api#error": "server",
            "smithy.api#httpError": 500
          }
```

```
    },
    "com.amazonaws.licensemanager#SignedToken": {
      "type": "string",
      "traits": {
        "smithy.api#length": {
          "min": 4096
        }
      }
    },
    "com.amazonaws.licensemanager#StatusReasonMessage": {
      "type": "string",
      "traits":
{
        "smithy.api#length": {
          "min": 0,
          "max": 400
        },
        "smithy.api#pattern": "^[\\s\\S]+$"
      }
    },
    "com.amazonaws.licensemanager#String": {
      "type": "string"
    },
    "com.amazonaws.licensemanager#StringList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanager#String"
      }
    },
    "com.amazonaws.licensemanager#Tag": {
      "type": "structure",
      "members": {
        "Key": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Tag key.</p>"
          }
        },
        "Value": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation":
"<p>Tag value.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>Details about a tag for a license configuration.</p>"
```

```
        }
      },
      "com.amazonaws.licensemanager#TagKeyList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#String"
        }
      },
      "com.amazonaws.licensemanager#TagList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanager#Tag"
        }
      },
      "com.amazonaws.licensemanager#TagResource": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#TagResourceRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#TagResourceResponse"
        },
        "errors": [
          {
            "target":
"com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Adds the specified tags to the specified license configuration.</p>"
        }
      },
      "com.amazonaws.licensemanager#TagResourceRequest": {
        "type": "structure",
        "members": {
          "ResourceArn": {
```

```
            "target": "com.amazonaws.licensemanager#String",
            "traits":
{
                "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license
configuration.</p>",
                "smithy.api#required": {}
            }
        },
        "Tags": {
            "target": "com.amazonaws.licensemanager#TagList",
            "traits": {
                "smithy.api#documentation": "<p>One or more tags.</p>",
                "smithy.api#required": {}
            }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanager#TagResourceResponse": {
      "type": "structure",
      "members": {},
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanager#TokenData": {
      "type": "structure",
      "members": {
        "TokenId": {
          "target": "com.amazonaws.licensemanager#String",
           "traits": {
            "smithy.api#documentation": "<p>Token ID.</p>"
          }
        },
        "TokenType": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Type of token generated. The supported value is
<code>REFRESH_TOKEN</code>.</p>"
          }
        },
        "LicenseArn": {
          "target": "com.amazonaws.licensemanager#String",
          "traits": {
            "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license.</p>"
          }
```

```
            },
            "ExpirationTime": {
               "target": "com.amazonaws.licensemanager#ISO8601DateTime",
               "traits": {
                  "smithy.api#documentation": "<p>Token expiration time, in ISO8601-UTC
 format.</p>"
               }
            },
            "TokenProperties": {
               "target": "com.amazonaws.licensemanager#MaxSize3StringList",
               "traits": {
                  "smithy.api#documentation": "<p>Data specified by the caller.</p>"
               }
            },
            "RoleArns": {
               "target": "com.amazonaws.licensemanager#ArnList",
               "traits": {
                  "smithy.api#documentation": "<p>Amazon Resource Names (ARN) of the roles included in the
token.</p>"
               }
            },
            "Status": {
               "target": "com.amazonaws.licensemanager#String",
               "traits": {
                  "smithy.api#documentation": "<p>Token status. The possible values are
<code>AVAILABLE</code> and <code>DELETED</code>.</p>"
               }
            }
         },
         "traits": {

           "smithy.api#documentation": "<p>Describes a token.</p>"
         }
      },
      "com.amazonaws.licensemanager#TokenList": {
         "type": "list",
         "member": {
            "target": "com.amazonaws.licensemanager#TokenData"
         }
      },
      "com.amazonaws.licensemanager#TokenString": {
         "type": "string",
         "traits": {
            "smithy.api#length": {
               "min": 0,
               "max": 4096
            },
            "smithy.api#pattern": "^\\S+$"
```

```
        }
      },
      "com.amazonaws.licensemanager#TokenType": {
        "type": "enum",
        "members": {
          "REFRESH_TOKEN": {
            "target": "smithy.api#Unit",
            "traits": {
              "smithy.api#enumValue": "REFRESH_TOKEN"
            }
          }
        }
      },
      "com.amazonaws.licensemanager#UnsupportedDigitalSignatureMethodException":
{
        "type": "structure",
        "members": {
          "Message": {
            "target": "com.amazonaws.licensemanager#Message"
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>The digital signature method is unsupported. Try your request
again.</p>",
          "smithy.api#error": "client",
          "smithy.api#httpError": 400
        }
      },
      "com.amazonaws.licensemanager#UntagResource": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanager#UntagResourceRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanager#UntagResourceResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
```

```
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Removes the specified tags from the specified license
configuration.</p>"
        }
    },
    "com.amazonaws.licensemanager#UntagResourceRequest": {
        "type": "structure",
        "members": {
            "ResourceArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license
configuration.</p>",
                     "smithy.api#required": {}
                }
            },
            "TagKeys": {
                "target": "com.amazonaws.licensemanager#TagKeyList",
                "traits": {
                    "smithy.api#documentation": "<p>Keys identifying the tags to remove.</p>",
                    "smithy.api#required": {}
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#UntagResourceResponse": {
        "type": "structure",
        "members": {},
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#UpdateLicenseConfiguration": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#UpdateLicenseConfigurationRequest"
        },
        "output": {
```

```
 "target": "com.amazonaws.licensemanager#UpdateLicenseConfigurationResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanager#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanager#AuthorizationException"
          },
          {
            "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
          },
          {
            "target": "com.amazonaws.licensemanager#RateLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
          },
          {
            "target": "com.amazonaws.licensemanager#ServerInternalException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Modifies the attributes of an existing license configuration.</p>"
        }
      },
      "com.amazonaws.licensemanager#UpdateLicenseConfigurationRequest": {
        "type": "structure",
        "members": {
          "LicenseConfigurationArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the license
configuration.</p>",
              "smithy.api#required": {}
            }
          },
          "LicenseConfigurationStatus": {
            "target": "com.amazonaws.licensemanager#LicenseConfigurationStatus",
            "traits": {
              "smithy.api#documentation": "<p>New status of the license configuration.</p>"
            }
          },
          "LicenseRules": {
            "target": "com.amazonaws.licensemanager#StringList",
            "traits": {
```

```
    "smithy.api#documentation": "<p>New license rule. The only rule that you can add after you create a license\n
    configuration is licenseAffinityToHost.</p>"
                }
            },
            "LicenseCount": {
                "target": "com.amazonaws.licensemanager#BoxLong",
                "traits": {
                    "smithy.api#documentation": "<p>New number of licenses managed by the license
configuration.</p>"
                }
            },
            "LicenseCountHardLimit": {
                "target": "com.amazonaws.licensemanager#BoxBoolean",
                "traits": {
                    "smithy.api#documentation": "<p>New hard limit of the number of available licenses.</p>"
                }
            },
            "Name": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>New name
 of the license configuration.</p>"
                }
            },
            "Description": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>New description of the license configuration.</p>"
                }
            },
            "ProductInformationList": {
                "target": "com.amazonaws.licensemanager#ProductInformationList",
                "traits": {
                    "smithy.api#documentation": "<p>New product information.</p>"
                }
            },
            "DisassociateWhenNotFound": {
                "target": "com.amazonaws.licensemanager#BoxBoolean",
                "traits": {
                    "smithy.api#documentation": "<p>When true, disassociates a resource when software is
uninstalled.</p>"
                }
            }
        },
        "traits":
 {
            "smithy.api#input": {}
        }
```

```
    },
    "com.amazonaws.licensemanager#UpdateLicenseConfigurationResponse": {
      "type": "structure",
      "members": {},
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanager#UpdateLicenseManagerReportGenerator": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanager#UpdateLicenseManagerReportGeneratorRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanager#UpdateLicenseManagerReportGeneratorResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanager#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanager#AuthorizationException"
        },
        {
          "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
         },
        {
          "target": "com.amazonaws.licensemanager#RateLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ResourceLimitExceededException"
        },
        {
          "target": "com.amazonaws.licensemanager#ResourceNotFoundException"
        },
        {
          "target": "com.amazonaws.licensemanager#ServerInternalException"
        },
        {
          "target": "com.amazonaws.licensemanager#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Updates a report generator.</p>\n        <p>After you make changes to a report generator, it starts generating new reports within 60 minutes of being updated.</p>"
      }
    },
    "com.amazonaws.licensemanager#UpdateLicenseManagerReportGeneratorRequest":
```

```
{
        "type": "structure",
        "members": {
          "LicenseManagerReportGeneratorArn": {
            "target": "com.amazonaws.licensemanager#String",
            "traits": {
              "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the report generator to
update.</p>",
              "smithy.api#required": {}
            }
          },
          "ReportGeneratorName": {
            "target": "com.amazonaws.licensemanager#ReportGeneratorName",
            "traits": {
              "smithy.api#documentation": "<p>Name of the report generator.</p>",
              "smithy.api#required": {}
            }
          },
          "Type": {
            "target": "com.amazonaws.licensemanager#ReportTypeList",
            "traits": {
              "smithy.api#documentation":
 "<p>Type of reports to generate. The following report types are supported:</p>\n        <ul>\n          <li>\n
<p>License configuration report - Reports the number and details of consumed licenses for a license
configuration.</p>\n          </li>\n          <li>\n            <p>Resource report - Reports the tracked licenses and
resource consumption for a license configuration.</p>\n          </li>\n        </ul>",
              "smithy.api#required": {}
            }
          },
          "ReportContext": {
            "target": "com.amazonaws.licensemanager#ReportContext",
            "traits": {
              "smithy.api#documentation": "<p>The report context.</p>",
              "smithy.api#required": {}
            }
          },
          "ReportFrequency": {
            "target": "com.amazonaws.licensemanager#ReportFrequency",
            "traits":
{
              "smithy.api#documentation": "<p>Frequency by which reports are generated.</p>",
              "smithy.api#required": {}
            }
          },
          "ClientToken": {
            "target": "com.amazonaws.licensemanager#ClientRequestToken",
            "traits": {
              "smithy.api#documentation": "<p>Unique, case-sensitive identifier that you provide to ensure the
```

```
idempotency of the request.</p>",
                    "smithy.api#required": {}
                }
            },
            "Description": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Description of the report generator.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#UpdateLicenseManagerReportGeneratorResponse":
{
        "type": "structure",
        "members": {},
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#UpdateLicenseSpecificationsForResource": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#UpdateLicenseSpecificationsForResourceRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#UpdateLicenseSpecificationsForResourceResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
            },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },

            {
                "target": "com.amazonaws.licensemanager#InvalidResourceStateException"
            },
            {
                "target": "com.amazonaws.licensemanager#LicenseUsageException"
            },
```

```
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Adds or removes the specified license configurations for the specified
Amazon Web Services resource.</p>\n          <p>You can update the license specifications of AMIs, instances, and
hosts.\n          You cannot update the license specifications for launch templates and CloudFormation templates, \n
 as they send license configurations to the operation that creates the resource.</p>"
        }
    },

    "com.amazonaws.licensemanager#UpdateLicenseSpecificationsForResourceRequest": {
        "type": "structure",
        "members": {
            "ResourceArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the Amazon Web Services
resource.</p>",
                    "smithy.api#required": {}
                }
            },
            "AddLicenseSpecifications": {
                "target": "com.amazonaws.licensemanager#LicenseSpecifications",
                "traits": {
                    "smithy.api#documentation": "<p>ARNs of the license configurations to add.</p>"
                }
            },
            "RemoveLicenseSpecifications": {
                "target": "com.amazonaws.licensemanager#LicenseSpecifications",
                "traits": {
                    "smithy.api#documentation":
 "<p>ARNs of the license configurations to remove.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanager#UpdateLicenseSpecificationsForResourceResponse": {
        "type": "structure",
        "members": {},
        "traits": {
```

```
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanager#UpdateServiceSettings": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanager#UpdateServiceSettingsRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanager#UpdateServiceSettingsResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanager#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanager#AuthorizationException"
             },
            {
                "target": "com.amazonaws.licensemanager#InvalidParameterValueException"
            },
            {
                "target": "com.amazonaws.licensemanager#RateLimitExceededException"
            },
            {
                "target": "com.amazonaws.licensemanager#ServerInternalException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Updates License Manager settings for the current Region.</p>"
        }
    },
    "com.amazonaws.licensemanager#UpdateServiceSettingsRequest": {
        "type": "structure",
        "members": {
            "S3BucketArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the Amazon S3 bucket where
the License
 Manager information is stored.</p>"
                }
            },
            "SnsTopicArn": {
                "target": "com.amazonaws.licensemanager#String",
                "traits": {
                    "smithy.api#documentation": "<p>Amazon Resource Name (ARN) of the Amazon SNS topic used
for License Manager alerts.</p>"
```

```
            }
          },
          "OrganizationConfiguration": {
            "target": "com.amazonaws.licensemanager#OrganizationConfiguration",
            "traits": {
              "smithy.api#documentation": "<p>Enables integration with Organizations for cross-account
discovery.</p>"
            }
          },
          "EnableCrossAccountsDiscovery": {
            "target": "com.amazonaws.licensemanager#BoxBoolean",
            "traits": {
              "smithy.api#documentation": "<p>Activates cross-account discovery.</p>"

       }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanager#UpdateServiceSettingsResponse": {
        "type": "structure",
        "members": {},
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanager#UsageOperation": {
        "type": "string",
        "traits": {
          "smithy.api#length": {
            "min": 0,
            "max": 50
          }
        }
      },
      "com.amazonaws.licensemanager#ValidationException": {
        "type": "structure",
        "members": {
          "Message": {
            "target": "com.amazonaws.licensemanager#Message"
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>The provided input is not valid. Try your request again.</p>",
```

```
        "smithy.api#error": "client",
            "smithy.api#httpError": 400
          }
        }
      }
    }
```

1.514 jbcrypt 0.4

1.514.1 Available under license :

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* /jbcrypt-0-4-sources-5-jar/org/mindrot/jbcrypt/BCrypt.java

1.515 xuri-nfp 0.0.0-20240318013403-ab9948c2c4a7

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1.516 go-restful 3.12.0

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1.517 orion-ssh2 214

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1.518 go-secure-stdlib-parseutil 0.1.8

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1.520 futures 3.4.0

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1.521 x-time-rate 0.5.0

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1.522 gorilla-mux 1.8.1

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1.523 python-requests 2.32.4

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1.524 gcache 0.0.2

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1.525 distlib 0.1.7

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Python was created in the early 1990s by Guido van Rossum at Stichting
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as a successor of a language called ABC. Guido remains Python's

principal author, although it includes many contributions from others.

In 1995, Guido continued his work on Python at the Corporation for National Research Initiatives (CNRI, see http://www.cnri.reston.va.us) in Reston, Virginia where he released several versions of the software.

In May 2000, Guido and the Python core development team moved to BeOpen.com to form the BeOpen PythonLabs team. In October of the same year, the PythonLabs team moved to Digital Creations (now Zope Corporation, see http://www.zope.com). In 2001, the Python Software Foundation (PSF, see http://www.python.org/psf/) was formed, a non-profit organization created specifically to own Python-related Intellectual Property. Zope Corporation is a sponsoring member of the PSF.

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1.3 thru 1.5.2	1.2	1995-1999	CNRI	yes
1.6	1.5.2	2000	CNRI	no
2.0	1.6	2000	BeOpen.com	no
1.6.1	1.6	2001	CNRI	yes (2)
2.1	2.0+1.6.1	2001	PSF	no
2.0.1	2.0+1.6.1	2001	PSF	yes
2.1.1	2.1+2.0.1	2001	PSF	yes
2.2	2.1.1	2001	PSF	yes
2.1.2	2.1.1	2002	PSF	yes
2.1.3	2.1.2	2002	PSF	yes
2.2.1	2.2	2002	PSF	yes
2.2.2	2.2.1	2002	PSF	yes
2.2.3	2.2.2	2003	PSF	yes
2.3	2.2.2	2002-2003	PSF	yes
2.3.1	2.3	2002-2003	PSF	yes
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2.3.3	2.3.2	2002-2003	PSF	yes
2.3.4	2.3.3	2004	PSF	yes
2.3.5	2.3.4	2005	PSF	yes
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2.4.2	2.4.1	2005	PSF	yes
2.4.3	2.4.2	2006	PSF	yes
2.4.4	2.4.3	2006	PSF	yes
2.5	2.4	2006	PSF	yes
2.5.1	2.5	2007	PSF	yes
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2.5.3	2.5.2	2008	PSF	yes
2.6	2.5	2008	PSF	yes
2.6.1	2.6	2008	PSF	yes
2.6.2	2.6.1	2009	PSF	yes
2.6.3	2.6.2	2009	PSF	yes
2.6.4	2.6.3	2009	PSF	yes
2.6.5	2.6.4	2010	PSF	yes
3.0	2.6	2008	PSF	yes
3.0.1	3.0	2009	PSF	yes
3.1	3.0.1	2009	PSF	yes
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distlib has started off using some of the code from distutil2.

If you're making a patch, please add your name below in alphabetical order,
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1.529 idna 2.7

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No license file was found, but licenses were detected in source scan.

"""
A library to support the Internationalised Domain Names in Applications
(IDNA) protocol as specified in RFC 5890 et.al. This new methodology,
known as IDNA 2008, can generate materially different results to the
previous standard. The library can act as a drop-in replacement for

```
the "encodings.idna" module.
"""

import io, sys
from setuptools import setup


def main():

  python_version = sys.version_info[:2]
  if python_version < (2,6):
     raise SystemExit("Sorry, Python 2.6 or newer required")

  package_data = {}
  exec(open('idna/package_data.py').read(), package_data)

  arguments = {
     'name': 'idna',
     'packages': ['idna'],
     'version': package_data['__version__'],
     'description': 'Internationalized Domain Names in Applications (IDNA)',
     'long_description': io.open("README.rst", encoding="UTF-8").read(),
     'author': 'Kim Davies',
     'author_email': 'kim@cynosure.com.au',
      'license': 'BSD-like',
     'url': 'https://github.com/kjd/idna',
     'classifiers': [
        'Development Status :: 5 - Production/Stable',
        'Intended Audience :: Developers',
        'Intended Audience :: System Administrators',
        'License :: OSI Approved :: BSD License',
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        'Programming Language :: Python',
        'Programming Language :: Python :: 2.6',
        'Programming Language :: Python :: 2.7',
        'Programming Language :: Python :: 3',
        'Programming Language :: Python :: 3.3',
        'Programming Language :: Python :: 3.4',
        'Programming Language :: Python :: 3.5',
        'Programming Language :: Python :: 3.6',
        'Topic :: Internet :: Name Service (DNS)',
        'Topic :: Software Development :: Libraries :: Python Modules',
        'Topic :: Utilities',
     ],
     'test_suite':
 'tests',
  }
```

```
  setup(**arguments)

if __name__ == '__main__':
  main()
```

Found in path(s):
* /kjd-idna-v2-7-0-g5d76cb6-1-tar-gz/kjd-idna-77c8bce/setup.py

1.530 go-jmespath 0.4.0

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1.531 javax-activation 1.1

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1.532 apache-log4j 2.17.1

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ResolverUtil.java

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- Chris McDonough, 2011/02/16
- Wichert Akkerman, 2012/02/02
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ca-bundle.crt -- Bundle of CA Root Certificates

Certificate data from Mozilla as of: Thu Nov 3 19:04:19 2011#
This is a bundle of X.509 certificates of public Certificate Authorities
(CA). These were automatically extracted from Mozilla's root certificates
file (certdata.txt). This file can be found in the mozilla source tree:
http://mxr.mozilla.org/mozilla/source/security/nss/lib/ckfw/builtins/certdata.txt?raw=1#
It contains the certificates in PEM format and therefore
can be directly used with curl / libcurl / php_curl, or with
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A. HISTORY OF THE SOFTWARE
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Python was created in the early 1990s by Guido van Rossum at Stichting
Mathematisch Centrum (CWI, see http://www.cwi.nl) in the Netherlands
as a successor of a language called ABC. Guido remains Python's
principal author, although it includes many contributions from others.

In 1995, Guido continued his work on Python at the Corporation for
National Research Initiatives (CNRI, see http://www.cnri.reston.va.us)
in Reston, Virginia where he released several versions of the
software.

In May 2000, Guido and the Python core development team moved to
BeOpen.com to form the BeOpen PythonLabs team. In October of the same
year, the PythonLabs team moved to Digital Creations (now Zope
Corporation, see http://www.zope.com). In 2001, the Python Software
Foundation (PSF, see http://www.python.org/psf/) was formed, a
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All Python releases are Open Source (see http://www.opensource.org for the Open Source Definition). Historically, most, but not all, Python releases have also been GPL-compatible; the table below summarizes the various releases.

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1.3 thru 1.5.2	1.2	1995-1999	CNRI	yes
1.6	1.5.2	2000	CNRI	no
2.0	1.6	2000	BeOpen.com	no
1.6.1	1.6	2001	CNRI	yes (2)
2.1	2.0+1.6.1	2001	PSF	no
2.0.1	2.0+1.6.1	2001	PSF	yes
2.1.1	2.1+2.0.1	2001	PSF	yes
2.2	2.1.1	2001	PSF	yes
2.1.2	2.1.1	2002	PSF	yes
2.1.3	2.1.2	2002	PSF	yes
2.2.1	2.2	2002	PSF	yes
2.2.2	2.2.1	2002	PSF	yes
2.2.3	2.2.2	2003	PSF	yes
2.3	2.2.2	2002-2003	PSF	yes
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2.3.3	2.3.2	2002-2003	PSF	yes
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2.3.5	2.3.4	2005	PSF	yes
2.4	2.3	2004	PSF	yes
2.4.1	2.4	2005	PSF	yes
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2.4.3	2.4.2	2006	PSF	yes
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2.5	2.4	2006	PSF	yes
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2.6	2.5	2008	PSF	yes
2.6.1	2.6	2008	PSF	yes
2.6.2	2.6.1	2009	PSF	yes
2.6.3	2.6.2	2009	PSF	yes
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2.6.5	2.6.4	2010	PSF	yes

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Python was created in the early 1990s by Guido van Rossum at Stichting Mathematisch Centrum (CWI, see http://www.cwi.nl) in the Netherlands as a successor of a language called ABC. Guido remains Python's principal author, although it includes many contributions from others.

In 1995, Guido continued his work on Python at the Corporation for National Research Initiatives (CNRI, see http://www.cnri.reston.va.us) in Reston, Virginia where he released several versions of the software.

In May 2000, Guido and the Python core development team moved to BeOpen.com to form the BeOpen PythonLabs team. In October of the same

year, the PythonLabs team moved to Digital Creations (now Zope Corporation, see http://www.zope.com). In 2001, the Python Software Foundation (PSF, see http://www.python.org/psf/) was formed, a non-profit organization created specifically to own Python-related Intellectual Property. Zope Corporation is a sponsoring member of the PSF.

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2.3	2.2.2	2002-2003	PSF	yes
2.3.1	2.3	2002-2003	PSF	yes
2.3.2	2.3.1	2002-2003	PSF	yes
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2.3.4	2.3.3	2004	PSF	yes
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2.4.1	2.4	2005	PSF	yes
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2.4.3	2.4.2	2006	PSF	yes
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2.5.1	2.5	2007	PSF	yes
2.5.2	2.5.1	2008	PSF	yes
2.5.3	2.5.2	2008	PSF	yes
2.6	2.5	2008	PSF	yes
2.6.1	2.6	2008	PSF	yes

2.6.2	2.6.1	2009	PSF	yes
2.6.3	2.6.2	2009	PSF	yes
2.6.4	2.6.3	2009	PSF	yes
2.6.5	2.6.4	2010	PSF	yes
3.0	2.6	2008	PSF	yes
3.0.1	3.0	2009	PSF	yes
3.1	3.0.1	2009	PSF	yes
3.1.1	3.1	2009	PSF	yes
3.1.2	3.1	2010	PSF	yes
3.2	3.1	2010	PSF	yes

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History

Before (and including) argparse 1.1, the argparse package was licensed under
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After argparse 1.1, all project files from the argparse project were deleted
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A. HISTORY OF THE SOFTWARE
==========================

Python was created in the early 1990s by Guido van Rossum at Stichting
Mathematisch Centrum (CWI, see http://www.cwi.nl) in the Netherlands
as a successor of a language called ABC. Guido remains Python's

principal author, although it includes many contributions from others.

In 1995, Guido continued his work on Python at the Corporation for National Research Initiatives (CNRI, see http://www.cnri.reston.va.us) in Reston, Virginia where he released several versions of the software.

In May 2000, Guido and the Python core development team moved to BeOpen.com to form the BeOpen PythonLabs team. In October of the same year, the PythonLabs team moved to Digital Creations (now Zope Corporation, see http://www.zope.com). In 2001, the Python Software Foundation (PSF, see http://www.python.org/psf/) was formed, a non-profit organization created specifically to own Python-related Intellectual Property. Zope Corporation is a sponsoring member of the PSF.

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Release	Derived from	Year	Owner	GPL-compatible? (1)
0.9.0 thru 1.2		1991-1995	CWI	yes
1.3 thru 1.5.2	1.2	1995-1999	CNRI	yes
1.6	1.5.2	2000	CNRI	no
2.0	1.6	2000	BeOpen.com	no
1.6.1	1.6	2001	CNRI	yes (2)
2.1	2.0+1.6.1	2001	PSF	no
2.0.1	2.0+1.6.1	2001	PSF	yes
2.1.1	2.1+2.0.1	2001	PSF	yes
2.1.2	2.1.1	2002	PSF	yes
2.1.3	2.1.2	2002	PSF	yes
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2.1.1		2001-now	PSF	yes

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Thanks to the many outside volunteers who have worked under Guido's
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1.537 ghodss-yaml 1.0.1-0.20190212211648-25d852aebe32

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1.538 pytest 3.4.2

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1.539 urllib3 1.26.14

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1.540 protobuf 1.5.4

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1.541 python-certifi 2022.12.07

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file (certdata.txt). This file can be found in the mozilla source tree:
https://hg.mozilla.org/mozilla-central/file/tip/security/nss/lib/ckfw/builtins/certdata.txt
It contains the certificates in PEM format and therefore
can be directly used with curl / libcurl / php_curl, or with
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1.542 python-requests 2.31.0

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1.549 apipkg 1.5

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1.550 python-pip 1.5.6

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1.551 python3-asn1crypto 0.24.0

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1.552 html5lib 1.0b1

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1.553 mgo 2.0.0-20190816093944-a6b53ec6cb22

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BSON library for Go

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mgo - MongoDB driver for Go

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1.554 html5lib 1.1

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1.555 go-rpm 0.0.0-20190131055624-7a9c54e3d83e

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1.556 genproto-googleapis-rpc 0.0.0-20231030173426-d783a09b4405

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1.557 cffi 1.15.0

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1.558 mnt-vol1-jenkins-workspace-starship-master-indigo-code-apollo 1.5

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1.559 jmespath-community-go-jmespath 1.1.1-0.20230531184041-4a4bfbff5d01

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1.560 pexpect 4.6.0

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1.561 scapy 2.4.5rc1.dev32

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{
"testfiles": [
"test/*.uts",

```
  "test/scapy/layers/*.uts",
  "test/contrib/automotive/*.uts",
  "test/contrib/automotive/obd/*.uts",
  "test/contrib/automotive/gm/*.uts",
  "test/contrib/automotive/bmw/*.uts",
  "test/contrib/automotive/xcp/*.uts",
  "test/contrib/*.uts"
 ],
 "remove_testfiles": [
  "test/linux.uts",
  "test/windows.uts",
  "test/contrib/automotive/ecu_am.uts",
  "test/contrib/automotive/gm/gmlanutils.uts",
  "test/contrib/isotp.uts",
  "test/contrib/isotpscan.uts"
 ],
 "onlyfailed": true,
 "preexec": {
  "test/contrib/*.uts": "load_contrib(\"%name%\")",
  "test/cert.uts": "load_layer(\"tls\")",
  "test/sslv2.uts": "load_layer(\"tls\")",
  "test/tls*.uts": "load_layer(\"tls\")"
 },
 "kw_ko": [
  "linux",
  "windows",
  "crypto_advanced",
  "ipv6",
  "vcan_socket"
 ]
}
```

1.562 go-yaml 2.4.0

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1.563 websocket 1.5.1

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1.564 json 0.0.0-20221116044647-bc3834ca7abd

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1.565 decimal 1.3.1

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1.566 aws-sdk-go-v2-service-internal-presigned-url 1.11.17

1.566.1 Available under license :

```
name: License Scan

on: [pull_request]

jobs:
 licensescan:
   name: License Scan
   runs-on: ubuntu-latest
   strategy:
     matrix:
       python-version: [3.9]

   steps:
     - name: Checkout target
       uses: actions/checkout@v2
       with:
         path: sdkbase
         ref: ${{ github.base_ref }}
     - name: Checkout this ref
       uses: actions/checkout@v2
       with:
         path: new-ref
         fetch-depth: 0
     - name: Get Diff
       run: git --git-dir ./new-ref/.git diff --name-only --diff-filter=ACMRT ${{ github.event.pull_request.base.sha }}
${{ github.sha }} > refDiffFiles.txt
     - name: Get Target Files
       run: git --git-dir ./sdkbase/.git ls-files | grep -xf refDiffFiles.txt - > targetFiles.txt
     - name: Checkout scancode
       uses: actions/checkout@v2
       with:
         repository: nexB/scancode-toolkit
         path: scancode-toolkit
         fetch-depth: 1
     - name: Set up Python ${{ matrix.python-version }}
        uses: actions/setup-python@v2
       with:
         python-version: ${{ matrix.python-version }}
     # ScanCode
     - name: Self-configure scancode
       working-directory: ./scancode-toolkit
       run: ./scancode --help
     - name: Run Scan code on target
       run: cat targetFiles.txt | while read filename; do echo ./sdkbase/$filename; done | xargs ./scancode-
toolkit/scancode -l -n 30 --json-pp - | grep short_name | sort | uniq >> old-licenses.txt
     - name: Run Scan code on pr ref
       run: cat refDiffFiles.txt | while read filename; do echo ./new-ref/$filename; done | xargs ./scancode-
```

toolkit/scancode -l -n 30 --json-pp - | grep short_name | sort | uniq >> new-licenses.txt
    # compare
    - name: License test
      run: if ! cmp old-licenses.txt new-licenses.txt; then echo "Licenses differ! Failing."; exit -1; else echo "Licenses are the same. Success."; exit 0; fi
CreateLicense
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
  OperationInputValidation
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
 Build stack step
  ClientRequestID
  ComputeContentLength
  UserAgent
  AddTimeOffsetMiddleware
  RecursionDetection
 Finalize stack step
  ResolveAuthScheme
  GetIdentity
  ResolveEndpointV2
  disableHTTPS
  ComputePayloadHash
  Retry
  RetryMetricsHeader
  setLegacyContextSigningOptions
  Signing
 Deserialize stack step
  AddRawResponseToMetadata
  ErrorCloseResponseBody
  CloseResponseBody
  ResponseErrorWrapper
  RequestIDRetriever
  OperationDeserializer
  AddTimeOffsetMiddleware
  RecordResponseTiming
  RequestResponseLogger
ListReceivedLicenses
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
 Serialize stack step
  setOperationInput

```
 ResolveEndpoint
 OperationSerializer
Build stack step
 ClientRequestID
 ComputeContentLength
 UserAgent
 AddTimeOffsetMiddleware
 RecursionDetection
Finalize stack step
 ResolveAuthScheme
 GetIdentity
 ResolveEndpointV2
 disableHTTPS
 ComputePayloadHash
 Retry
 RetryMetricsHeader
 setLegacyContextSigningOptions
 Signing
Deserialize stack step
 AddRawResponseToMetadata
 ErrorCloseResponseBody
 CloseResponseBody
 ResponseErrorWrapper
 RequestIDRetriever
 OperationDeserializer
 AddTimeOffsetMiddleware
 RecordResponseTiming
 RequestResponseLogger
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Checks out the specified license.
//
// If the account that created the license is the same that is performing the
// check out, you must specify the account as the beneficiary.
func (c *Client) CheckoutLicense(ctx context.Context, params *CheckoutLicenseInput, optFns ...func(*Options))
(*CheckoutLicenseOutput, error) {
 if params == nil {
```

```
 params = &CheckoutLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "CheckoutLicense", params, optFns,
c.addOperationCheckoutLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*CheckoutLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type CheckoutLicenseInput struct {

 //
 Checkout type.
 //
 // This member is required.
 CheckoutType types.CheckoutType

 // Unique, case-sensitive identifier that you provide to ensure the idempotency of
 // the request.
 //
 // This member is required.
 ClientToken *string

 // License entitlements.
 //
 // This member is required.
 Entitlements []types.EntitlementData

 // Key fingerprint identifying the license.
 //
 // This member is required.
 KeyFingerprint *string

 // Product SKU.
 //
 // This member is required.
 ProductSKU *string

 // License beneficiary.
 Beneficiary *string

 // Node ID.
 NodeId *string
```

```
 noSmithyDocumentSerde
}

type CheckoutLicenseOutput struct {

 // Checkout type.
 CheckoutType types.CheckoutType

 // Allowed license entitlements.
 EntitlementsAllowed []types.EntitlementData

 // Date and time at which the license checkout expires.
 Expiration *string

 // Date and time at which the license checkout is issued.
 IssuedAt *string

 // Amazon Resource Name (ARN) of the checkout license.
 LicenseArn
 *string

 // License consumption token.
 LicenseConsumptionToken *string

 // Node ID.
 NodeId *string

 // Signed token.
 SignedToken *string

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationCheckoutLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpCheckoutLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpCheckoutLicense{}, middleware.After)
 if err != nil {
  return err
```

```
}
if err := addProtocolFinalizerMiddlewares(stack, options, "CheckoutLicense"); err != nil {
 return fmt.Errorf("add protocol finalizers: %v", err)
}

if err = addlegacyEndpointContextSetter(stack, options); err != nil {
 return err
}
if err = addSetLoggerMiddleware(stack,
options); err != nil {
 return err
}
if err = addClientRequestID(stack); err != nil {
 return err
}
if err = addComputeContentLength(stack); err != nil {
 return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
 return err
}
if err = addComputePayloadSHA256(stack); err != nil {
 return err
}
if err = addRetry(stack, options); err != nil {
 return err
}
if err = addRawResponseToMetadata(stack); err != nil {
 return err
}
if err = addRecordResponseTiming(stack); err != nil {
 return err
}
if err = addClientUserAgent(stack, options); err != nil {
 return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
 return err
}
if err = addTimeOffsetBuild(stack, c); err != nil {
 return err
}
```

```
 if err = addUserAgentRetryMode(stack,
 options); err != nil {
  return err
 }
 if err = addOpCheckoutLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opCheckoutLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opCheckoutLicense(region string) *awsmiddleware.RegisterServiceMetadata
{
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName: "CheckoutLicense",
 }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
```

```
)

// Creates a license.
func (c *Client) CreateLicense(ctx context.Context, params *CreateLicenseInput, optFns ...func(*Options))
(*CreateLicenseOutput, error) {
 if params == nil {
  params = &CreateLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "CreateLicense", params, optFns,
c.addOperationCreateLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*CreateLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type CreateLicenseInput struct {

 // License beneficiary.
 //
 // This member is required.
 Beneficiary *string

 // Unique, case-sensitive identifier that you provide to ensure the idempotency of
 // the request.
 //
 //
 This member is required.
 ClientToken *string

 // Configuration for consumption of the license. Choose a provisional
 // configuration for workloads running with continuous connectivity. Choose a
 // borrow configuration for workloads with offline usage.
 //
 // This member is required.
 ConsumptionConfiguration *types.ConsumptionConfiguration

 // License entitlements.
 //
 // This member is required.
 Entitlements []types.Entitlement

 // Home Region for the license.
 //
```

```
    // This member is required.
    HomeRegion *string

    // License issuer.
    //
    // This member is required.
    Issuer *types.Issuer

    // License name.
    //
    // This member is required.
    LicenseName *string

    // Product name.
    //
    // This member is required.
    ProductName *string

    // Product SKU.
    //
    // This member is required.
    ProductSKU *string

    // Date and time range during which the license is valid, in ISO8601-UTC format.
    //
    // This member is required.
    Validity *types.DatetimeRange

    // Information about
    the license.
    LicenseMetadata []types.Metadata

    noSmithyDocumentSerde
}

type CreateLicenseOutput struct {

    // Amazon Resource Name (ARN) of the license.
    LicenseArn *string

    // License status.
    Status types.LicenseStatus

    // License version.
    Version *string

    // Metadata pertaining to the operation's result.
    ResultMetadata middleware.Metadata
```

```
 noSmithyDocumentSerde
}

func (c *Client) addOperationCreateLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpCreateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpCreateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "CreateLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if
 err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
```

```
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return
 err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
  return err
 }
 if err = addUserAgentRetryMode(stack, options); err != nil {
  return err
 }
 if err = addOpCreateLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opCreateLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opCreateLicense(region string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:    ServiceID,
```

```
 OperationName:
 "CreateLicense",
 }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package grafana

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/grafana/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Removes the Grafana Enterprise license from a workspace.
func (c *Client) DisassociateLicense(ctx context.Context, params *DisassociateLicenseInput, optFns
...func(*Options)) (*DisassociateLicenseOutput, error) {
 if params == nil {
  params = &DisassociateLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "DisassociateLicense", params, optFns,
c.addOperationDisassociateLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*DisassociateLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type DisassociateLicenseInput struct {

 // The type of license to remove from the workspace.
 //
 // This member is required.
 LicenseType types.LicenseType

 //
 The ID of the workspace to remove the Grafana Enterprise license from.
 //
 // This member is required.
 WorkspaceId *string
```

```
 noSmithyDocumentSerde
}

type DisassociateLicenseOutput struct {

 // A structure containing information about the workspace.
 //
 // This member is required.
 Workspace *types.WorkspaceDescription

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationDisassociateLicenseMiddlewares(stack *middleware.Stack, options Options) (err
error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsRestjson1_serializeOpDisassociateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsRestjson1_deserializeOpDisassociateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "DisassociateLicense");
 err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
```

```
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil
 {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
  return err
 }
 if err = addUserAgentRetryMode(stack, options); err != nil {
  return err
 }
 if err = addOpDisassociateLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opDisassociateLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
```

```
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opDisassociateLicense(region string)
*awsmiddleware.RegisterServiceMetadata
 {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName: "DisassociateLicense",
 }
}
CheckoutLicense
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
  OperationInputValidation
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
 Build stack step
  ClientRequestID
  ComputeContentLength
  UserAgent
  AddTimeOffsetMiddleware
  RecursionDetection
 Finalize stack step
  ResolveAuthScheme
  GetIdentity
  ResolveEndpointV2
  disableHTTPS
  ComputePayloadHash
  Retry
  RetryMetricsHeader
  setLegacyContextSigningOptions
  Signing
 Deserialize stack step
  AddRawResponseToMetadata
  ErrorCloseResponseBody
  CloseResponseBody
```

ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
AddTimeOffsetMiddleware
RecordResponseTiming
RequestResponseLogger
DisassociateLicense
Initialize stack step
RegisterServiceMetadata
legacyEndpointContextSetter
SetLogger
OperationInputValidation
Serialize stack step
setOperationInput
ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
UserAgent
AddTimeOffsetMiddleware
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
AddTimeOffsetMiddleware
RecordResponseTiming
RequestResponseLogger
CheckoutBorrowLicense
Initialize stack step
RegisterServiceMetadata
legacyEndpointContextSetter
SetLogger
OperationInputValidation

```
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
 Build stack step
  ClientRequestID
  ComputeContentLength
  UserAgent
  AddTimeOffsetMiddleware
  RecursionDetection
 Finalize stack step
  ResolveAuthScheme
  GetIdentity
  ResolveEndpointV2
  disableHTTPS
  ComputePayloadHash
  Retry
  RetryMetricsHeader
  setLegacyContextSigningOptions
  Signing
 Deserialize stack step
  AddRawResponseToMetadata
  ErrorCloseResponseBody
  CloseResponseBody
  ResponseErrorWrapper
  RequestIDRetriever
  OperationDeserializer
  AddTimeOffsetMiddleware
  RecordResponseTiming
  RequestResponseLogger
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Lists received licenses.
func (c *Client) ListReceivedLicenses(ctx context.Context, params *ListReceivedLicensesInput, optFns
...func(*Options)) (*ListReceivedLicensesOutput, error) {
 if params == nil {
  params = &ListReceivedLicensesInput{}
```

```
 }

 result, metadata, err := c.invokeOperation(ctx, "ListReceivedLicenses", params, optFns,
c.addOperationListReceivedLicensesMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*ListReceivedLicensesOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type ListReceivedLicensesInput struct {

 // Filters to scope the results. The following filters are supported:
 //
 //   - ProductSKU
 //
 //   - Status
 //
 //
   - Fingerprint
 //
 //   - IssuerName
 //
 //   - Beneficiary
 Filters []types.Filter

 // Amazon Resource Names (ARNs) of the licenses.
 LicenseArns []string

 // Maximum number of results to return in a single call.
 MaxResults *int32

 // Token for the next set of results.
 NextToken *string

 noSmithyDocumentSerde
}

type ListReceivedLicensesOutput struct {

 // Received license details.
 Licenses []types.GrantedLicense

 // Token for the next set of results.
 NextToken *string
```

```
 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationListReceivedLicensesMiddlewares(stack *middleware.Stack, options Options) (err
error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpListReceivedLicenses{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpListReceivedLicenses{},
 middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "ListReceivedLicenses"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
```

```
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err
 = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
  return err
 }
 if err = addUserAgentRetryMode(stack, options); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opListReceivedLicenses(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opListReceivedLicenses(region
 string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
```

```
 Region:       region,
 ServiceID:    ServiceID,
 OperationName: "ListReceivedLicenses",
 }
}
AssociateLicense
 Initialize stack step
 RegisterServiceMetadata
 legacyEndpointContextSetter
 SetLogger
 OperationInputValidation
 Serialize stack step
 setOperationInput
 ResolveEndpoint
 OperationSerializer
 Build stack step
 ClientRequestID
 ComputeContentLength
 UserAgent
 AddTimeOffsetMiddleware
 RecursionDetection
 Finalize stack step
 ResolveAuthScheme
 GetIdentity
 ResolveEndpointV2
 disableHTTPS
 ComputePayloadHash
 Retry
 RetryMetricsHeader
 setLegacyContextSigningOptions
 Signing
 Deserialize stack step
 AddRawResponseToMetadata
 ErrorCloseResponseBody
 CloseResponseBody
 ResponseErrorWrapper
 RequestIDRetriever
 OperationDeserializer
 AddTimeOffsetMiddleware
 RecordResponseTiming
 RequestResponseLogger
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
```

```
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Gets detailed information about the specified license.
func (c *Client) GetLicense(ctx context.Context, params *GetLicenseInput, optFns ...func(*Options))
(*GetLicenseOutput, error) {
 if params == nil {
  params = &GetLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "GetLicense", params, optFns,
c.addOperationGetLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*GetLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type GetLicenseInput struct {

 // Amazon Resource Name (ARN) of the license.
 //
 // This member is required.
 LicenseArn *string

 // License version.
 Version *string

 noSmithyDocumentSerde
}

type
 GetLicenseOutput struct {

 // License details.
 License *types.License

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}
```

```
func (c *Client) addOperationGetLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpGetLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpGetLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "GetLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err
 != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
```

```
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
  return err
 }
 if err = addUserAgentRetryMode(stack, options); err != nil {
  return err
 }
 if err = addOpGetLicenseValidationMiddleware(stack);
 err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opGetLicense(options.Region), middleware.Before);
err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opGetLicense(region string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName: "GetLicense",
 }
}
```

```
// Code generated by smithy-go-codegen DO NOT EDIT.

package grafana

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/grafana/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Assigns a Grafana Enterprise license to a workspace. To upgrade, you must use
// ENTERPRISE for the licenseType , and pass in a valid Grafana Labs token for the
// grafanaToken . Upgrading to Grafana Enterprise incurs additional fees. For more
// information, see [Upgrade a workspace to Grafana Enterprise].
//
// [Upgrade a workspace to Grafana Enterprise]: https://docs.aws.amazon.com/grafana/latest/userguide/upgrade-to-
Grafana-Enterprise.html
func (c *Client) AssociateLicense(ctx context.Context, params *AssociateLicenseInput, optFns ...func(*Options))
(*AssociateLicenseOutput, error) {
 if params == nil {
  params = &AssociateLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx,
 "AssociateLicense", params, optFns, c.addOperationAssociateLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*AssociateLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type AssociateLicenseInput struct {

 // The type of license to associate with the workspace.
 //
 // Amazon Managed Grafana workspaces no longer support Grafana Enterprise free
 // trials.
 //
 // This member is required.
 LicenseType types.LicenseType

 // The ID of the workspace to associate the license with.
```

```
 //
 // This member is required.
 WorkspaceId *string

 // A token from Grafana Labs that ties your Amazon Web Services account with a
 // Grafana Labs account. For more information, see [Link your account with Grafana Labs].
 //
 // [Link your account with Grafana Labs]: https://docs.aws.amazon.com/grafana/latest/userguide/upgrade-to-
Grafana-Enterprise.html#AMG-workspace-register-enterprise
 GrafanaToken *string

 noSmithyDocumentSerde
}

type AssociateLicenseOutput
 struct {

 // A structure containing data about the workspace.
 //
 // This member is required.
 Workspace *types.WorkspaceDescription

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationAssociateLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsRestjson1_serializeOpAssociateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsRestjson1_deserializeOpAssociateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "AssociateLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack,
```

```
 options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
  return err
 }
 if err = addUserAgentRetryMode(stack,
 options); err != nil {
  return err
 }
 if err = addOpAssociateLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opAssociateLicense(options.Region),
middleware.Before); err != nil {
```

```
 return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opAssociateLicense(region string)
*awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName: "AssociateLicense",
 }
}
ListLicenses
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
 Build stack step
  ClientRequestID
  ComputeContentLength
  UserAgent
  AddTimeOffsetMiddleware
  RecursionDetection
 Finalize stack step
  ResolveAuthScheme
  GetIdentity
  ResolveEndpointV2
  disableHTTPS
```

ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
AddTimeOffsetMiddleware
RecordResponseTiming
RequestResponseLogger
AWS SDK for Go
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```
{
  "smithy": "2.0",
  "shapes": {
    "com.amazonaws.licensemanagerlinuxsubscriptions#BoxInteger": {
      "type": "integer"
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    "com.amazonaws.licensemanagerlinuxsubscriptions#BoxLong": {
      "type": "long"
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#DeregisterSubscriptionProvider": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#DeregisterSubscriptionProviderRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#DeregisterSubscriptionProviderResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
        },
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ResourceNotFoundException"
        },

    {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
        },
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
```

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            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Remove a third-party subscription provider from the Bring Your Own License (BYOL) subscriptions \n\t\t\tregistered to your account.</p>",
            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/subscription/DeregisterSubscriptionProvider"
            },
            "smithy.api#idempotent": {}
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#DeregisterSubscriptionProviderRequest": {
        "type": "structure",
        "members": {
            "SubscriptionProviderArn": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn",
                "traits": {
                    "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the subscription provider resource to deregister.</p>",
                    "smithy.api#required": {}
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#DeregisterSubscriptionProviderResponse": {
        "type": "structure",
        "members": {},
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#Filter": {
        "type": "structure",
        "members": {
            "Name": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The type of name to filter by.</p>"
                }
            },
            "Values": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringList",
                "traits": {
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                "smithy.api#documentation": "<p>One or more values for the name to filter by.</p>"
              }
            },
            "Operator": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Operator",
              "traits": {
                "smithy.api#documentation": "<p>An operator for filtering results.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>A filter object that is used to return more specific results from a describe operation.\n      Filters can be used to match a set of resources by specific criteria.</p>"
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#FilterList": {
          "type":
 "list",
          "member": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Filter"
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#GetRegisteredSubscriptionProvider": {
          "type": "operation",
          "input": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#GetRegisteredSubscriptionProviderRequest"
          },
          "output": {
            "target":
"com.amazonaws.licensemanagerlinuxsubscriptions#GetRegisteredSubscriptionProviderResponse"
          },
          "errors": [
            {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
            },
            {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ResourceNotFoundException"
            },
            {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
             },
            {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Get details for a Bring Your Own License (BYOL) subscription that's registered to your account.</p>",
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            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/subscription/GetRegisteredSubscriptionProvider"
            },
            "smithy.api#idempotent": {}
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#GetRegisteredSubscriptionProviderRequest": {
        "type": "structure",
        "members": {
            "SubscriptionProviderArn": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn",
                "traits": {
                    "smithy.api#documentation":
"<p>The Amazon Resource Name (ARN) of the BYOL registration resource to get details for.</p>",
                    "smithy.api#required": {}
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#GetRegisteredSubscriptionProviderResponse": {
        "type": "structure",
        "members": {
            "SubscriptionProviderArn": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn",
                "traits": {
                    "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) for the BYOL registration
resource specified in the request.</p>"
                }
            },
            "SubscriptionProviderSource": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderSource",

          "traits": {
                    "smithy.api#documentation": "<p>The subscription provider for the BYOL registration resource
specified \n\t\t\tin the request.</p>"
                }
            },
            "SecretArn": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SecretArn",
                "traits": {
                    "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the third-party access
secret stored in Secrets Manager for the BYOL \n\t\t\tregistration resource specified in the request.</p>"
                }
```

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            },
            "SubscriptionProviderStatus": {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderStatus",
               "traits": {
                  "smithy.api#documentation": "<p>The status of the Linux subscription provider access token from the last \n\t\t\tsuccessful subscription data request.</p>"
               }
            },
            "SubscriptionProviderStatusMessage": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The detailed message from your subscription provider token status.</p>"
               }
            },
            "LastSuccessfulDataRetrievalTime": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The timestamp from the last time License Manager retrieved subscription details \n\t\t\tfrom your registered third-party Linux subscription provider.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#output": {}
         }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettings": {
         "type": "operation",
         "input": {
            "target":
 "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettingsRequest"
         },
         "output": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettingsResponse"
         },
         "errors": [
            {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
            },
            {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
            },
            {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
            }
         ],
         "traits": {
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            "smithy.api#documentation": "<p>Lists the Linux subscriptions service settings for your account.</p>",
            "smithy.api#http": {
              "code": 200,
              "method": "POST",
              "uri": "/subscription/GetServiceSettings"

            },
            "smithy.api#idempotent": {}
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettingsRequest": {
          "type": "structure",
          "members": {}
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettingsResponse": {
          "type": "structure",
          "members": {
            "LinuxSubscriptionsDiscovery": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscovery",
              "traits": {
                "smithy.api#documentation": "<p>Lists if discovery has been enabled for Linux subscriptions.</p>"
              }
            },
            "LinuxSubscriptionsDiscoverySettings": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscoverySettings",
              "traits": {
                "smithy.api#documentation": "<p>Lists
 the settings defined for Linux subscriptions discovery. The settings include if\n      Organizations integration has
been enabled, and which Regions data will be aggregated from.</p>"
              }
            },
            "Status": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Status",
              "traits": {
                "smithy.api#documentation": "<p>Indicates the status of Linux subscriptions settings being
applied.</p>"
              }
            },
            "StatusMessage": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringMap",
              "traits": {
                "smithy.api#documentation": "<p>A message which details the Linux subscriptions service settings
current status.</p>"
              }
            },
            "HomeRegions": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringList",
```

```
            "traits": {
              "smithy.api#documentation": "<p>The Region in which License Manager displays the aggregated
data for Linux\n      subscriptions.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#Instance": {
        "type": "structure",
        "members": {
          "AmiId": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The AMI ID used to launch the instance.</p>"
            }
          },
          "InstanceID": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The instance ID of the resource.</p>"
            }
          },
          "InstanceType": {
            "target": "smithy.api#String",
            "traits":
{
              "smithy.api#documentation": "<p>The instance type of the resource.</p>"
            }
          },
          "AccountID": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The account ID which owns the instance.</p>"
            }
          },
          "Status": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The status of the instance.</p>"
            }
          },
          "Region": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The Region the instance is running in.</p>"
            }
          },
          "UsageOperation": {
```

```
            "target": "smithy.api#String",

    "traits": {
                "smithy.api#documentation": "<p>The usage operation of the instance. For more information, see For more information, see\n        <a href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/linux-subscriptions-usage-operation.html\">Usage\n        operation values</a> in the <i>License Manager User Guide</i>.</p>"
            }
          },
          "ProductCode": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ProductCodeList",
            "traits": {
              "smithy.api#documentation": "<p>The product code for the instance. For more information, see <a href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/linux-subscriptions-usage-operation.html\">Usage\n        operation values</a> in the <i>License Manager User Guide</i> .</p>"
            }
          },
          "LastUpdatedTime": {
            "target": "smithy.api#String",
             "traits": {
              "smithy.api#documentation": "<p>The time in which the last discovery updated the instance details.</p>"
            }
          },
          "SubscriptionName": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The name of the license subscription that the instance uses.</p>"
            }
          },
          "OsVersion": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The operating system software version that runs on your instance.</p>"
            }
          },
          "SubscriptionProviderCreateTime": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The timestamp when you registered
 the third-party Linux subscription \n\t\t\tprovider for the subscription that the instance uses.</p>"
            }
          },
          "SubscriptionProviderUpdateTime": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The timestamp from the last time that the instance synced with the
```

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registered \n\t\t\tthird-party Linux subscription provider.</p>"
                }
            },
            "DualSubscription": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>Indicates that you have two different license subscriptions for
\n\t\t\tthe same software on your instance.</p>"
                }
            },
            "RegisteredWithSubscriptionProvider": {
                "target": "smithy.api#String",
                "traits": {

    "smithy.api#documentation": "<p>Indicates that your instance uses a BYOL license subscription from \n\t\t\ta
third-party Linux subscription provider that you've registered with License Manager.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>Details discovered information about a running instance using Linux
subscriptions.</p>"
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#InstanceList": {
        "type": "list",
        "member": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Instance"
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException": {
        "type": "structure",
        "members": {
            "message": {
                "target": "smithy.api#String"
            }
        },
        "traits": {
            "smithy.api#documentation":
 "<p>An exception occurred with the service.</p>",
            "smithy.api#error": "server"
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#LicenseManagerLinuxSubscriptions": {
        "type": "service",
        "version": "2018-05-10",
        "operations": [
            {
```

```
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#DeregisterSubscriptionProvider"
        },
        {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#GetRegisteredSubscriptionProvider"
        },
        {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettings"
        },
        {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstances"
        },
        {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptions"
         },
        {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListRegisteredSubscriptionProviders"
        },
        {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListTagsForResource"
        },
        {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#RegisterSubscriptionProvider"
        },
        {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#TagResource"
        },
        {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UntagResource"
        },
        {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettings"
        }
    ],
    "traits": {
        "aws.api#service": {
            "sdkId": "License Manager Linux Subscriptions",
             "arnNamespace": "license-manager-linux-subscriptions",
            "cloudTrailEventSource": "license-manager-linux-subscriptions.amazonaws.com"
        },
        "aws.auth#sigv4": {
            "name": "license-manager-linux-subscriptions"
        },
        "aws.protocols#restJson1": {},
        "smithy.api#cors": {
            "additionalAllowedHeaders": [
                "*",
                "content-type",
                "x-amz-content-sha256",
```

```
            "x-amz-user-agent",
            "x-amzn-platform-id",
            "x-amzn-trace-id"
          ],
          "additionalExposedHeaders": [
            "x-amzn-errortype",
            "x-amzn-requestid",
            "x-amzn-trace-id"
          ]
        },
        "smithy.api#documentation": "<p>With License Manager,
 you can discover and track your commercial Linux subscriptions on running\n      Amazon EC2 instances.</p>",
        "smithy.api#title": "AWS License Manager Linux Subscriptions",
        "smithy.rules#endpointRuleSet": {
          "version": "1.0",
          "parameters": {
            "Region": {
              "builtIn": "AWS::Region",
              "required": false,
              "documentation": "The AWS region used to dispatch the request.",
              "type": "String"
            },
            "UseDualStack": {
              "builtIn": "AWS::UseDualStack",
              "required": true,
              "default": false,
              "documentation": "When true, use the dual-stack endpoint. If the configured endpoint does not
 support dual-stack, dispatching the request MAY return an error.",
               "type": "Boolean"
            },
            "UseFIPS": {
              "builtIn": "AWS::UseFIPS",
              "required": true,
              "default": false,
              "documentation": "When true, send this request to the FIPS-compliant regional endpoint. If the
 configured endpoint does not have a FIPS compliant endpoint, dispatching the request will return an error.",
              "type": "Boolean"
            },
            "Endpoint": {
              "builtIn": "SDK::Endpoint",
              "required": false,
              "documentation": "Override the endpoint used to send this request",
              "type": "String"
            }
          },
          "rules": [
            {
              "conditions": [
```

```
                {
                  "fn": "isSet",
                  "argv": [
                    {
                      "ref": "Endpoint"
                    }
                  ]
                }
              ],
              "rules": [
                {
                  "conditions": [
                    {
                      "fn": "booleanEquals",
                      "argv": [
                        {
                          "ref": "UseFIPS"
                        },
                        true
                      ]
                    }

        ],
                  "error": "Invalid Configuration: FIPS and custom endpoint are not supported",
                  "type": "error"
                },
                {
                  "conditions": [],
                  "rules": [
                    {
                      "conditions": [
                        {
                          "fn": "booleanEquals",
                          "argv": [
                            {
                              "ref": "UseDualStack"
                            },
                            true
                          ]

}
                      ],
                      "error": "Invalid Configuration: Dualstack and custom endpoint are not supported",
                      "type": "error"
                    },
                    {
                      "conditions": [],
                      "endpoint": {
```

```
                "url": {
                  "ref": "Endpoint"
                },
                "properties": {},
                "headers": {}
              },
              "type": "endpoint"
            }
          ],
          "type": "tree"

      }
      ],
      "type": "tree"
    },
    {
      "conditions": [],
      "rules": [
        {
          "conditions": [
            {
              "fn": "isSet",
              "argv": [
                {
                  "ref": "Region"
                }
              ]
            }
          ],
          "rules": [
            {
              "conditions": [
                {

      "fn": "aws.partition",
                    "argv": [
                      {
                        "ref": "Region"
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                    ],
                    "assign": "PartitionResult"
                  }
                ],
                "rules": [
                  {
                    "conditions": [
                      {
                        "fn": "booleanEquals",
```

```
                "argv": [
                  {

              "ref": "UseFIPS"
                  },
                  true
                ]
              },
              {
                "fn": "booleanEquals",
                "argv": [
                  {
                    "ref": "UseDualStack"
                  },
                  true
                ]
              }

],
            "rules": [
              {
                "conditions": [
                  {
                    "fn": "booleanEquals",
                    "argv": [
                      true,
                      {
                        "fn": "getAttr",
                        "argv": [
                          {
                            "ref": "PartitionResult"

        },
                              "supportsFIPS"
                          ]
                        }
                      ]
                    },
                    {
                      "fn": "booleanEquals",
                      "argv": [
                        true,
                        {
                          "fn": "getAttr",
                          "argv": [

                           {
                                "ref": "PartitionResult"
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```
                                        },
                                        "supportsDualStack"
                                    ]
                                }
                            ]
                        }
                    ],
                    "rules": [
                        {
                            "conditions": [],

    "rules": [
                                {
                                    "conditions": [],
                                    "endpoint": {
                                        "url": "https://license-manager-linux-subscriptions-
fips.{Region}.{PartitionResult#dualStackDnsSuffix}",
                                        "properties": {},
                                        "headers": {}
                                    },
                                    "type": "endpoint"
                                }
                            ],

                "type": "tree"
                            }
                        ],
                        "type": "tree"
                    },
                    {
                        "conditions": [],
                        "error": "FIPS and DualStack are enabled, but this partition does not support
one or both",
                        "type": "error"
                    }
                ],
                "type": "tree"
            },
            {

        "conditions": [
                    {
                        "fn": "booleanEquals",
                        "argv": [
                            {
                                "ref": "UseFIPS"
                            },
                            true
```

```
                ]
              }
            ],
            "rules": [
              {
                "conditions": [
                  {

          "fn": "booleanEquals",
                      "argv": [
                        {
                          "fn": "getAttr",
                          "argv": [
                            {
                              "ref": "PartitionResult"
                            },
                            "supportsFIPS"
                          ]
                        },
                        true

                    ]
                  }
                ],
                "rules": [
                  {
                    "conditions": [],
                    "rules": [
                      {
                        "conditions": [],
                        "endpoint": {
                          "url": "https://license-manager-linux-subscriptions-
fips.{Region}.{PartitionResult#dnsSuffix}",

    "properties": {},
                          "headers": {}
                        },
                        "type": "endpoint"
                      }
                    ],
                    "type": "tree"
                  }
                ],
                "type": "tree"
              },
              {
                "conditions": [],
                "error": "FIPS is enabled
```

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but this partition does not support FIPS",
                                    "type": "error"
                                }
                            ],
                            "type": "tree"
                        },
                        {
                            "conditions": [
                                {
                                    "fn": "booleanEquals",
                                    "argv": [
                                        {
                                            "ref": "UseDualStack"
                                        },
                                        true

                    ]
                                }
                            ],
                            "rules": [
                                {
                                    "conditions": [
                                        {
                                            "fn": "booleanEquals",
                                            "argv": [
                                                true,
                                                {
                                                    "fn": "getAttr",
                                                    "argv": [
                                                        {

                                                            "ref": "PartitionResult"
                                                        },
                                                        "supportsDualStack"
                                                    ]
                                                }
                                            ]
                                        }
                                    ],
                                    "rules": [
                                        {
                                            "conditions": [],
                                            "rules": [

        {
                                                    "conditions": [],
                                                    "endpoint": {
                                                        "url": "https://license-manager-linux-
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```
subscriptions.{Region}.{PartitionResult#dualStackDnsSuffix}",
                                                "properties": {},
                                                "headers": {}
                                            },
                                            "type": "endpoint"
                                        }
                                    ],
                                    "type": "tree"

                            }
                                ],
                                "type": "tree"
                            },
                            {
                                "conditions": [],
                                "error": "DualStack is enabled but this partition does not support DualStack",
                                "type": "error"
                            }
                        ],
                        "type": "tree"
                    },
                    {
                        "conditions": [],
                        "rules": [
                            {
                                "conditions": [],
                                "endpoint": {
                                    "url": "https://license-manager-linux-
subscriptions.{Region}.{PartitionResult#dnsSuffix}",
                                    "properties": {},
                                    "headers": {}
                                },
                                "type": "endpoint"
                            }
                        ],
                        "type": "tree"
                    }
                ],
                "type": "tree"
            }
        ],
        "type": "tree"
    },
    {
        "conditions": [],
        "error": "Invalid Configuration: Missing Region",
        "type": "error"
    }
```

```
        ],
        "type": "tree"
      }
    ]
  },
  "smithy.rules#endpointTests": {
    "testCases": [
      {
        "documentation": "For region us-east-1 with FIPS enabled and DualStack enabled",
        "expect": {
          "endpoint": {
            "url": "https://license-manager-linux-subscriptions-fips.us-east-1.api.aws"

    }
        },
        "params": {
          "Region": "us-east-1",
          "UseFIPS": true,
          "UseDualStack": true
        }
      },
      {
        "documentation": "For region us-east-1 with FIPS enabled and DualStack disabled",
        "expect": {
          "endpoint": {
            "url": "https://license-manager-linux-subscriptions-fips.us-east-1.amazonaws.com"
          }
        },
        "params": {
          "Region": "us-east-1",
          "UseFIPS": true,
          "UseDualStack": false
        }
      },
      {

     "documentation": "For region us-east-1 with FIPS disabled and DualStack enabled",
        "expect": {
          "endpoint": {
            "url": "https://license-manager-linux-subscriptions.us-east-1.api.aws"
          }
        },
        "params": {
          "Region": "us-east-1",
          "UseFIPS": false,
          "UseDualStack": true
        }
      },
```

```
            {
              "documentation": "For region us-east-1 with FIPS disabled and DualStack disabled",
              "expect": {
                "endpoint": {
                  "url": "https://license-manager-linux-subscriptions.us-east-1.amazonaws.com"
                }

        },
              "params": {
                "Region": "us-east-1",
                "UseFIPS": false,
                "UseDualStack": false
              }
            },
            {
              "documentation": "For region cn-north-1 with FIPS enabled and DualStack enabled",
              "expect": {
                "endpoint": {
                  "url": "https://license-manager-linux-subscriptions-fips.cn-north-
1.api.amazonwebservices.com.cn"
                }
              },
              "params": {
                "Region": "cn-north-1",
                "UseFIPS": true,
                "UseDualStack": true
              }
            },
            {

 "documentation": "For region cn-north-1 with FIPS enabled and DualStack disabled",
              "expect": {
                "endpoint": {
                  "url": "https://license-manager-linux-subscriptions-fips.cn-north-1.amazonaws.com.cn"
                }
              },
              "params": {
                "Region": "cn-north-1",
                "UseFIPS": true,
                "UseDualStack": false
              }
            },
            {
              "documentation": "For region cn-north-1 with FIPS disabled and DualStack enabled",
              "expect": {
                "endpoint": {
                  "url": "https://license-manager-linux-subscriptions.cn-north-1.api.amazonwebservices.com.cn"
                }
```

```
      },
      "params": {
        "Region": "cn-north-1",
        "UseFIPS": false,
        "UseDualStack": true
      }
    },
    {
      "documentation": "For region cn-north-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-linux-subscriptions.cn-north-1.amazonaws.com.cn"
        }
      },
      "params": {
        "Region": "cn-north-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {

"documentation": "For region us-gov-east-1 with FIPS enabled and DualStack enabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-linux-subscriptions-fips.us-gov-east-1.api.aws"
        }
      },
      "params": {
        "Region": "us-gov-east-1",
        "UseFIPS": true,
        "UseDualStack": true
      }
    },
    {
      "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-linux-subscriptions-fips.us-gov-east-1.amazonaws.com"
        }

     },
      "params": {
        "Region": "us-gov-east-1",
        "UseFIPS": true,
        "UseDualStack": false
      }
    },
```

```
                {
                  "documentation": "For region us-gov-east-1 with FIPS disabled and DualStack enabled",
                  "expect": {
                    "endpoint": {
                      "url": "https://license-manager-linux-subscriptions.us-gov-east-1.api.aws"
                    }
                  },
                  "params": {
                    "Region": "us-gov-east-1",
                    "UseFIPS": false,
                    "UseDualStack": true
                  }
                },
                {

"documentation": "For region us-gov-east-1 with FIPS disabled and DualStack disabled",
                  "expect": {
                    "endpoint": {
                      "url": "https://license-manager-linux-subscriptions.us-gov-east-1.amazonaws.com"
                    }
                  },
                  "params": {
                    "Region": "us-gov-east-1",
                    "UseFIPS": false,
                    "UseDualStack": false
                  }
                },
                {
                  "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack enabled",
                  "expect": {
                    "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
                  },
                  "params": {

               "Region": "us-iso-east-1",
                    "UseFIPS": true,
                    "UseDualStack": true
                  }
                },
                {
                  "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack disabled",
                  "expect": {
                    "endpoint": {
                      "url": "https://license-manager-linux-subscriptions-fips.us-iso-east-1.c2s.ic.gov"
                    }
                  },
                  "params": {
                    "Region": "us-iso-east-1",
```

```
            "UseFIPS": true,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack
enabled",
          "expect": {
            "error": "DualStack is enabled but this partition does not support DualStack"
          },
          "params": {
            "Region": "us-iso-east-1",
            "UseFIPS": false,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-linux-subscriptions.us-iso-east-1.c2s.ic.gov"
            }
          },
          "params": {
            "Region": "us-iso-east-1",
            "UseFIPS":
false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack enabled",
          "expect": {
            "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
          },
          "params": {
            "Region": "us-isob-east-1",
            "UseFIPS": true,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-linux-subscriptions-fips.us-isob-east-1.sc2s.sgov.gov"
             }
          },
```

```
      "params": {
        "Region": "us-isob-east-1",
        "UseFIPS": true,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack enabled",
      "expect": {
        "error": "DualStack is enabled but this partition does not support DualStack"
      },
      "params": {
        "Region": "us-isob-east-1",
        "UseFIPS": false,
        "UseDualStack": true
      }
    },
    {

     "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-linux-subscriptions.us-isob-east-1.sc2s.sgov.gov"
        }
      },
      "params": {
        "Region": "us-isob-east-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For custom endpoint with region set and fips disabled and dualstack disabled",
      "expect": {
        "endpoint": {
          "url": "https://example.com"
        }

},
      "params": {
        "Region": "us-east-1",
        "UseFIPS": false,
        "UseDualStack": false,
        "Endpoint": "https://example.com"
      }
    },
    {
      "documentation": "For custom endpoint with region not set and fips disabled and dualstack
```

```
disabled",
                    "expect": {
                      "endpoint": {
                        "url": "https://example.com"
                      }
                    },
                    "params": {
                      "UseFIPS": false,
                      "UseDualStack": false,
                      "Endpoint": "https://example.com"
                    }
                  },
                  {

                    "documentation": "For custom endpoint with fips enabled and dualstack disabled",
                    "expect": {
                      "error": "Invalid Configuration: FIPS and custom endpoint are not supported"
                    },
                    "params": {
                      "Region": "us-east-1",
                      "UseFIPS": true,
                      "UseDualStack": false,
                      "Endpoint": "https://example.com"
                    }
                  },
                  {
                    "documentation": "For custom endpoint with fips disabled and dualstack enabled",
                    "expect": {
                      "error": "Invalid Configuration: Dualstack and custom endpoint are not supported"
                    },
                    "params": {

 "Region": "us-east-1",
                      "UseFIPS": false,
                      "UseDualStack": true,
                      "Endpoint": "https://example.com"
                    }
                  },
                  {
                    "documentation": "Missing region",
                    "expect": {
                      "error": "Invalid Configuration: Missing Region"
                    }
                  }
                ],
                "version": "1.0"
              }
            }
```

```
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscovery": {
      "type": "string",
      "traits": {
        "smithy.api#enum": [
          {
            "name": "Enabled",
            "value": "Enabled",
            "documentation": "Enabled LinuxSubscriptionsDiscovery"

    },
          {
            "name": "Disabled",
            "value": "Disabled",
            "documentation": "Disabled LinuxSubscriptionsDiscovery"
          }
        ]
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscoverySettings": {
      "type": "structure",
      "members": {
        "SourceRegions": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringList",
          "traits": {
            "smithy.api#documentation": "<p>The Regions in which to discover data for Linux
subscriptions.</p>",
            "smithy.api#required": {}
          }
        },
        "OrganizationIntegration": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#OrganizationIntegration",
          "traits": {
            "smithy.api#documentation":
 "<p>Details if you have enabled resource discovery across your accounts in Organizations.</p>",
            "smithy.api#required": {}
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>Lists the settings defined for discovering Linux subscriptions.</p>"
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstances": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstancesRequest"
      },
```

```
        "output": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstancesResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
            },

  {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
            },
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists the running Amazon EC2 instances that were discovered with
commercial Linux\n      subscriptions.</p>",
            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/subscription/ListLinuxSubscriptionInstances"
            },
            "smithy.api#idempotent": {},
            "smithy.api#paginated": {
                "inputToken": "NextToken",
                "outputToken": "NextToken",
                "pageSize": "MaxResults",
                "items": "Instances"
            }
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstancesRequest":
{
        "type": "structure",
        "members": {
            "Filters": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#FilterList",
                "traits": {
                    "smithy.api#documentation": "<p>An array of structures that you can use to filter the results by your
specified criteria. \n    \tFor example, you can specify <code>Region</code> in the <code>Name</code>, with the
\n    \t<code>contains</code> operator to list all subscriptions that match a partial string in the \n
\t<code>Value</code>, such as <code>us-west</code>.</p>\n          <p>For each filter, you can specify one of the
following values for the <code>Name</code> key \n    \tto streamline results:</p>\n          <ul>\n
<li>\n
  <p>\n                <code>AccountID</code>\n              </p>\n          </li>\n          <li>\n
<p>\n
    <code>AmiID</code>\n              </p>\n          </li>\n          <li>\n              <p>\n
<code>DualSubscription</code>\n              </p>\n          </li>\n          <li>\n              <p>\n
<code>InstanceID</code>\n              </p>\n          </li>\n          <li>\n              <p>\n
```

<code>InstanceType</code>\n \n \n \n \n
<code>ProductCode</code>\n \n \n \n \n
<code>Region</code>\n \n \n \n \n
<code>Status</code>\n \n \n \n \n
<code>UsageOperation</code>\n \n \n \n For each filter, you can use one of the following <code>Operator</code>
values to \n \t\tdefine the behavior of the filter: \n \n \n \n
<code>contains</code>\n \n \n \n \n
<code>equals</code>\n \n \n \n \n
<code>Notequal</code>\n \n \n "
}
},
"MaxResults": {
"target": "com.amazonaws.licensemanagerlinuxsubscriptions#BoxInteger",
"traits": {
"smithy.api#documentation": " The maximum items to return in a request. "
}
},
"NextToken": {
"target": "smithy.api#String",
"traits": {
"smithy.api#documentation": " A token to specify where to
start paginating. This \n\tis the nextToken from a previously truncated response. ",
"smithy.api#length": {
"min": 1,
"max": 16384
}
}
}
},
"traits": {
"smithy.api#documentation": "NextToken length limit is half of ddb accepted limit.\nIncrease this limit if parameters in request increases."
}
},
"com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstancesResponse": {
"type": "structure",
"members": {
"Instances": {
"target": "com.amazonaws.licensemanagerlinuxsubscriptions#InstanceList",
"traits": {
"smithy.api#documentation": " An array that contains instance objects. "
}
},
"NextToken": {

"target": "smithy.api#String",
"traits": {

```
                "smithy.api#documentation": "<p>The next token used for paginated responses. When this \n\tfield isn't empty, there are additional elements that the service hasn't \n\tincluded in this request. Use this token with the next request to retrieve \n\tadditional objects.</p>"
                }
            }
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptions": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionsRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionsResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
            },
             {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
            },
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists the Linux subscriptions that have been discovered. If you have linked your\n      organization, the returned results will include data aggregated across your accounts in\n Organizations.</p>",
            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/subscription/ListLinuxSubscriptions"
            },
            "smithy.api#idempotent": {},
            "smithy.api#paginated": {
                "inputToken": "NextToken",
                "outputToken": "NextToken",
                "pageSize": "MaxResults",

  "items": "Subscriptions"
            }
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionsRequest": {
        "type": "structure",
        "members": {
```

```
            "Filters": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#FilterList",
              "traits": {
                "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those
that match one or\n      more sets of key-value pairs that you specify. For example, you can filter by the name of\n
 <code>Subscription</code> with an optional operator to see subscriptions that match,\n      partially match, or don't
match a certain subscription's name.</p>\n        <p>The valid names for this filter are:</p>\n        <ul>\n
<li>\n            <p>\n              <code>Subscription</code>\n            </p>\n          </li>\n        </ul>\n
<p>The
 valid Operators for this filter are:</p>\n        <ul>\n          <li>\n            <p>\n
<code>contains</code>\n            </p>\n          </li>\n          <li>\n            <p>\n
<code>equals</code>\n            </p>\n          </li>\n          <li>\n            <p>\n
<code>Notequal</code>\n            </p>\n          </li>\n        </ul>"
              }
            },
            "MaxResults": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#BoxInteger",
              "traits": {
                "smithy.api#documentation": "<p>The maximum items to return in a request.</p>"
              }
            },
            "NextToken": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>A token to specify where to start paginating. This \n\tis
 the nextToken from a previously truncated response.</p>",
                "smithy.api#length": {
                  "min": 1,
                  "max": 16384
                }
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "NextToken length limit is half of ddb accepted limit.\nIncrease this limit if
parameters in request increases."
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionsResponse": {
          "type": "structure",
          "members": {
            "Subscriptions": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionList",
              "traits": {
                "smithy.api#documentation": "<p>An array that contains subscription objects.</p>"
              }
            },
            "NextToken": {
```

```
            "target": "smithy.api#String",
             "traits": {
               "smithy.api#documentation": "<p>The next token used for paginated responses. When this \n\tfield isn't empty, there are additional elements that the service hasn't \n\tincluded in this request. Use this token with the next request to retrieve \n\tadditional objects.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#ListRegisteredSubscriptionProviders": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListRegisteredSubscriptionProvidersRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListRegisteredSubscriptionProvidersResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"

          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>List Bring Your Own License (BYOL) subscription registration resources for your account.</p>",
          "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/subscription/ListRegisteredSubscriptionProviders"
          },
          "smithy.api#idempotent": {},
          "smithy.api#paginated": {
            "inputToken": "NextToken",
            "outputToken": "NextToken",
            "pageSize": "MaxResults",
            "items": "RegisteredSubscriptionProviders"
          }
        }
```

```
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ListRegisteredSubscriptionProvidersRequest": {
      "type": "structure",
      "members": {
        "SubscriptionProviderSources": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderSourceList",
          "traits": {
            "smithy.api#documentation": "<p>To filter your results, specify which subscription providers to
return \n\t\t\tin the list.</p>"
          }
        },
        "MaxResults": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#BoxInteger",
          "traits": {
            "smithy.api#documentation": "<p>The maximum items to return in a request.</p>",
            "smithy.api#range": {
              "min": 1,
              "max": 100
            }
          }

  },
        "NextToken": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>A token to specify where to start paginating. This \n\tis the
nextToken from a previously truncated response.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ListRegisteredSubscriptionProvidersResponse": {
      "type": "structure",
      "members": {
        "RegisteredSubscriptionProviders": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#RegisteredSubscriptionProviderList",
          "traits": {
            "smithy.api#documentation": "<p>The list of BYOL registration resources that fit the criteria
\n\t\t\tyou specified in the request.</p>"
          }
        },

       "NextToken": {
          "target": "smithy.api#String",
          "traits": {
```

```
                "smithy.api#documentation": "<p>The next token used for paginated responses. When this \n\tfield isn't empty, there are additional elements that the service hasn't \n\tincluded in this request. Use this token with the next request to retrieve \n\tadditional objects.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#output": {}
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#ListTagsForResource": {
          "type": "operation",
          "input": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListTagsForResourceRequest"
          },
          "output": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListTagsForResourceResponse"
          },
          "errors": [
            {

         "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
            },
            {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ResourceNotFoundException"
            },
            {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>List the metadata tags that are assigned to the \n\t\t\tspecified Amazon Web Services resource.</p>",
            "smithy.api#http": {
              "method": "GET",
              "uri": "/tags/{resourceArn}"
            },
            "smithy.api#readonly": {}
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#ListTagsForResourceRequest": {
          "type": "structure",
          "members": {
            "resourceArn": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn",
               "traits": {
                 "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the resource for which to list metadata tags.</p>",
```

```
            "smithy.api#httpLabel": {},
            "smithy.api#required": {}
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ListTagsForResourceResponse": {
      "type": "structure",
      "members": {
        "tags": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Tags",
          "traits": {
            "smithy.api#documentation": "<p>The metadata tags for the requested resource.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#Operator": {
      "type": "string",
      "traits": {
        "smithy.api#enum": [
          {
            "name": "EQUAL",
            "value": "Equal",
            "documentation": "Equal operator"
          },
          {
            "name": "NOT_EQUAL",
            "value": "NotEqual",
            "documentation": "Not equal operator"
          },
          {
            "name": "CONTAINS",
            "value": "Contains",
            "documentation": "Contains operator"
          }
        ],
        "smithy.api#length": {
          "min": 1,
          "max": 20
        }
      }
```

```
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#OrganizationIntegration":
{
      "type": "string",
      "traits": {
        "smithy.api#enum": [
          {
            "name": "Enabled",
            "value": "Enabled",
            "documentation": "Enabled OrganizationIntegration"
          },
          {
            "name": "Disabled",
            "value": "Disabled",
            "documentation": "Disabled OrganizationIntegration"
          }
        ]
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ProductCodeList": {
      "type": "list",
      "member": {
        "target": "smithy.api#String"
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#RegisterSubscriptionProvider": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#RegisterSubscriptionProviderRequest"
       },
      "output": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#RegisterSubscriptionProviderResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
        },
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
        },
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Register the supported third-party subscription provider for your Bring
Your Own License (BYOL) subscription.</p>",
        "smithy.api#http": {
```

```
                "code": 200,
                "method": "POST",
                "uri": "/subscription/RegisterSubscriptionProvider"

            },
            "smithy.api#idempotent": {}
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#RegisterSubscriptionProviderRequest": {
          "type": "structure",
          "members": {
            "SubscriptionProviderSource": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderSource",
              "traits": {
                "smithy.api#documentation": "<p>The supported Linux subscription provider to register.</p>",
                "smithy.api#required": {}
              }
            },
            "SecretArn": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SecretArn",
              "traits": {
                "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the secret where you've
stored your subscription provider's access token. For \n\t\t\tRHEL subscriptions managed through the
 Red Hat Subscription Manager (RHSM), the secret contains \n\t\t\tyour Red Hat Offline token.</p>",
                "smithy.api#required": {}
              }
            },
            "Tags": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Tags",
              "traits": {
                "smithy.api#documentation": "<p>The metadata tags to assign to your registered Linux subscription
provider \n\t\t\tresource.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#input": {}
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#RegisterSubscriptionProviderResponse": {
          "type": "structure",
          "members": {
            "SubscriptionProviderSource": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderSource",
              "traits": {
                "smithy.api#documentation":
 "<p>The Linux subscription provider that you registered.</p>"
              }
```

```
            },
            "SubscriptionProviderArn": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the Linux subscription
provider resource that you registered.</p>"
               }
            },
            "SubscriptionProviderStatus": {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderStatus",
               "traits": {
                  "smithy.api#documentation": "<p>Indicates the status of the registration action for the Linux
subscription provider \n\t\t\tthat you requested.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#output": {}
         }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#RegisteredSubscriptionProvider":
{
         "type": "structure",
         "members": {
            "SubscriptionProviderArn": {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn",
               "traits": {
                  "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the Linux subscription
provider resource that you registered.</p>"
               }
            },
            "SubscriptionProviderSource": {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderSource",
               "traits": {
                  "smithy.api#documentation": "<p>A supported third-party Linux subscription provider. License
Manager currently supports \n\t\t\tRed Hat subscriptions.</p>"
               }
            },
            "SecretArn": {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SecretArn",
                "traits": {
                  "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the Secrets Manager secret
that stores your registered Linux subscription provider \n\t\t\taccess token. For RHEL account subscriptions, this is
the offline token.</p>"
               }
            },
            "SubscriptionProviderStatus": {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderStatus",
```

```
            "traits": {
                "smithy.api#documentation": "<p>Indicates the status of your registered Linux subscription provider access token \n\t\t\tfrom the last time License Manager retrieved subscription data. For RHEL account subscriptions, \n\t\t\tthis is the status of the offline token.</p>"
            }
        },
        "SubscriptionProviderStatusMessage": {
            "target": "smithy.api#String",
            "traits":
{
                "smithy.api#documentation": "<p>A detailed message that's associated with your BYOL subscription \n\t\t\tprovider token status.</p>"
            }
        },
        "LastSuccessfulDataRetrievalTime": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The timestamp from the last time that License Manager accessed third-party subscription data \n\t\t\tfor your account from your registered Linux subscription provider.</p>"
            }
        }
    },
    "traits": {
        "smithy.api#documentation": "<p>A third-party provider for operating system (OS) platform software and license \n\t\t\tsubscriptions, such as Red Hat. When you register a third-party Linux subscription \n\t\t\tprovider, License Manager can get subscription data from the registered provider.</p>"
    }
},
"com.amazonaws.licensemanagerlinuxsubscriptions#RegisteredSubscriptionProviderList":
{
    "type": "list",
    "member": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#RegisteredSubscriptionProvider"
    }
},
"com.amazonaws.licensemanagerlinuxsubscriptions#ResourceNotFoundException": {
    "type": "structure",
    "members": {
        "message": {
            "target": "smithy.api#String"
        }
    },
    "traits": {
        "smithy.api#documentation": "<p>Unable to find the requested Amazon Web Services resource.</p>",
        "smithy.api#error": "client"
    }
},
"com.amazonaws.licensemanagerlinuxsubscriptions#SecretArn": {
```

```
        "type": "string",
        "traits": {
          "smithy.api#pattern": "^arn:[a-z0-9-\\.]{1,63}:secretsmanager:[a-z0-9-\\.]{0,63}:[a-z0-9-
\\.]{0,63}:secret:[^/]{1,1023}$"

    }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#Status": {
        "type": "string",
        "traits": {
          "smithy.api#enum": [
            {
              "name": "InProgress",
              "value": "InProgress",
              "documentation": "InProgress status"
            },
            {
              "name": "Completed",
              "value": "Completed",
              "documentation": "Completed status"
            },
            {
              "name": "Successful",
              "value": "Successful",
              "documentation": "Successful status"
            },
            {
              "name": "Failed",
              "value": "Failed",
              "documentation": "Failed status"
            }
          ]
        }
      },

      "com.amazonaws.licensemanagerlinuxsubscriptions#StringList": {
        "type": "list",
        "member": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#length": {
              "min": 1,
              "max": 100
            }
          }
        },
        "traits": {
          "smithy.api#length": {
```

```
            "min": 1,
            "max": 100
          },
          "smithy.api#uniqueItems": {}
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#StringMap": {
        "type": "map",
        "key": {
          "target": "smithy.api#String"
        },
        "value": {
          "target": "smithy.api#String"
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#Subscription": {
        "type": "structure",
        "members": {
          "Name":
{
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The name of the subscription.</p>"
            }
          },
          "Type": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The type of subscription. The type can be subscription-included
with Amazon EC2, Bring Your Own\n      Subscription model (BYOS), or from the Amazon Web Services
Marketplace. Certain subscriptions may use licensing from the\n      Amazon Web Services Marketplace as well as
OS licensing from Amazon EC2 or BYOS.</p>"
            }
          },
          "InstanceCount": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#BoxLong",
            "traits": {
              "smithy.api#documentation": "<p>The total amount of running instances using this
subscription.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>An object which details a discovered Linux subscription.</p>"
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionList": {
        "type": "list",
```

```
        "member": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Subscription"
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn": {
        "type": "string",
        "traits": {
            "smithy.api#pattern": "^arn:[a-z0-9-\\.]{1,63}:[a-z0-9-\\.]{1,63}:[a-z0-9-\\.]{1,63}:[a-z0-9-\\.]{1,63}:[a-z0-
9-\\.]{1,510}/[a-z0-9-\\.]{1,510}$"
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderSource": {
        "type": "string",
        "traits": {
            "smithy.api#enum": [

 {
                    "name": "RedHat",
                    "value": "RedHat",
                    "documentation": "RedHat subscription provider namespace"
                }
            ]
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderSourceList": {
        "type": "list",
        "member": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderSource"
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderStatus": {
        "type": "string",
        "traits": {
            "smithy.api#enum": [
                {
                    "name": "ACTIVE",
                    "value": "ACTIVE",
                    "documentation": "ACTIVE status"
                },
                {
                    "name": "INVALID",
                    "value": "INVALID",

   "documentation": "INVALID status"
                },
                {
                    "name": "PENDING",
                    "value": "PENDING",
```

```
                "documentation": "PENDING status"
              }
            ]
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#TagKeyList": {
          "type": "list",
          "member": {
            "target": "smithy.api#String"
          },
          "traits": {
            "smithy.api#length": {
              "min": 0,
              "max": 50
            },
            "smithy.api#sensitive": {}
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#TagResource": {
          "type": "operation",
          "input": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#TagResourceRequest"
          },
          "output": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#TagResourceResponse"
           },
          "errors": [
            {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
            },
            {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ResourceNotFoundException"
            },
            {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Add metadata tags to the specified Amazon Web Services
resource.</p>",
            "smithy.api#http": {
              "method": "PUT",
              "uri": "/tags/{resourceArn}"
            },
            "smithy.api#idempotent": {}
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#TagResourceRequest": {
```

```
        "type": "structure",
        "members":
{
            "resourceArn": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn",
                "traits": {
                    "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the Amazon Web Services
resource to which to add the specified \n\t\t\tmetadata tags.</p>",
                    "smithy.api#httpLabel": {},
                    "smithy.api#required": {}
                }
            },
            "tags": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Tags",
                "traits": {
                    "smithy.api#documentation": "<p>The metadata tags to assign to the Amazon Web Services resource.
Tags are \n\t\t\tformatted as key value pairs.</p>",
                    "smithy.api#required": {}
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }

    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#TagResourceResponse": {
        "type": "structure",
        "members": {},
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#Tags": {
        "type": "map",
        "key": {
            "target": "smithy.api#String"
        },
        "value": {
            "target": "smithy.api#String"
        },
        "traits": {
            "smithy.api#length": {
                "min": 0,
                "max": 50
            },
            "smithy.api#sensitive": {}
        }
```

```
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException": {
      "type": "structure",
      "members": {
        "message": {
          "target": "smithy.api#String"
        }
      },
      "traits": {
        "smithy.api#documentation":
"<p>The request was denied due to request throttling.</p>",
        "smithy.api#error": "client"
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#UntagResource": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UntagResourceRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UntagResourceResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
        },
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ResourceNotFoundException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Remove one or more metadata tag from the specified Amazon Web
Services resource.</p>",
        "smithy.api#http": {
          "method": "DELETE",
          "uri": "/tags/{resourceArn}"
        },
        "smithy.api#idempotent": {}
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#UntagResourceRequest": {
      "type": "structure",
      "members": {
        "resourceArn": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn",
          "traits": {
            "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the Amazon Web Services
resource to remove the metadata tags from.</p>",
```

```
                "smithy.api#httpLabel": {},
                "smithy.api#required": {}
              }
            },
            "tagKeys": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#TagKeyList",
              "traits": {

           "smithy.api#documentation": "<p>A list of metadata tag keys to remove from the requested
\n\t\t\tresource.</p>",
                "smithy.api#httpQuery": "tagKeys",
                "smithy.api#required": {}
              }
            }
          },
          "traits": {
            "smithy.api#input": {}
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#UntagResourceResponse": {
          "type": "structure",
          "members": {},
          "traits": {
            "smithy.api#output": {}
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettings": {
          "type": "operation",
          "input": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettingsRequest"
          },
          "output": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettingsResponse"

         },
          "errors": [
            {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
            },
            {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
            },
            {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Updates the service settings for Linux subscriptions.</p>",
```

```
            "smithy.api#http": {
              "code": 200,
              "method": "POST",
              "uri": "/subscription/UpdateServiceSettings"
            },
            "smithy.api#idempotent": {}
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettingsRequest": {
          "type": "structure",
          "members": {
            "LinuxSubscriptionsDiscovery": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscovery",
              "traits": {
                "smithy.api#documentation": "<p>Describes if the discovery of Linux subscriptions is enabled.</p>",
                "smithy.api#required": {}
              }
            },
            "LinuxSubscriptionsDiscoverySettings": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscoverySettings",
              "traits": {
                "smithy.api#documentation": "<p>The settings defined for Linux subscriptions discovery. The
settings include if Organizations\n      integration has been enabled, and which Regions data will be aggregated
from.</p>",
                "smithy.api#required": {}
              }
            },
            "AllowUpdate": {
              "target":
 "smithy.api#Boolean",
              "traits": {
                "smithy.api#documentation": "<p>Describes if updates are allowed to the service settings for Linux
subscriptions. If you\n      allow updates, you can aggregate Linux subscription data in more than one home
Region.</p>"
              }
            }
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettingsResponse": {
          "type": "structure",
          "members": {
            "LinuxSubscriptionsDiscovery": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscovery",
              "traits": {
                "smithy.api#documentation": "<p>Lists if discovery has been enabled for Linux subscriptions.</p>"
              }
            },
            "LinuxSubscriptionsDiscoverySettings": {
```

```
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscoverySettings",
                 "traits": {
                   "smithy.api#documentation": "<p>The settings defined for Linux subscriptions discovery. The
settings include if Organizations\n      integration has been enabled, and which Regions data will be aggregated
from.</p>"
                }
             },
             "Status": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Status",
                "traits": {
                   "smithy.api#documentation": "<p>Indicates the status of Linux subscriptions settings being
applied.</p>"
                }
             },
             "StatusMessage": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringMap",
                "traits": {
                   "smithy.api#documentation": "<p>A message which details the Linux subscriptions service settings
current status.</p>"
                }

       },
             "HomeRegions": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringList",
                "traits": {
                   "smithy.api#documentation": "<p>The Region in which License Manager displays the aggregated
data for Linux\n      subscriptions.</p>"
                }
             }
          }
       },
       "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException": {
          "type": "structure",
          "members": {
             "message": {
                "target": "smithy.api#String"
             }
          },
          "traits": {
             "smithy.api#documentation": "<p>The provided input is not valid. Try your request again.</p>",
             "smithy.api#error": "client"
          }
       }
    }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager
```

```
import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Deletes the specified license.
func (c *Client) DeleteLicense(ctx context.Context, params *DeleteLicenseInput, optFns ...func(*Options))
(*DeleteLicenseOutput, error) {
 if params == nil {
  params = &DeleteLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "DeleteLicense", params, optFns,
c.addOperationDeleteLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*DeleteLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type DeleteLicenseInput struct {

 // Amazon Resource Name (ARN) of the license.
 //
 // This member is required.
 LicenseArn *string

 // Current version of the license.
 //
 // This member is required.
 SourceVersion
 *string

 noSmithyDocumentSerde
}

type DeleteLicenseOutput struct {

 // Date when the license is deleted.
 DeletionDate *string
```

```
 // License status.
 Status types.LicenseDeletionStatus

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationDeleteLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpDeleteLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpDeleteLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "DeleteLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err !=
 nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
```

```
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil
 {
  return err
 }
 if err = addUserAgentRetryMode(stack, options); err != nil {
  return err
 }
 if err = addOpDeleteLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opDeleteLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
```

```
}

func newServiceMetadataMiddleware_opDeleteLicense(region string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName: "DeleteLicense",
 }
}
DeleteLicense
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
  OperationInputValidation
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
 Build stack step
  ClientRequestID
  ComputeContentLength
  UserAgent
  AddTimeOffsetMiddleware
  RecursionDetection
 Finalize stack step
  ResolveAuthScheme
  GetIdentity
  ResolveEndpointV2
  disableHTTPS
  ComputePayloadHash
  Retry
  RetryMetricsHeader
  setLegacyContextSigningOptions
  Signing
 Deserialize stack step
  AddRawResponseToMetadata
  ErrorCloseResponseBody
  CloseResponseBody
  ResponseErrorWrapper
  RequestIDRetriever
  OperationDeserializer
  AddTimeOffsetMiddleware
  RecordResponseTiming
  RequestResponseLogger
GetLicense
 Initialize stack step
  RegisterServiceMetadata
```

```
 legacyEndpointContextSetter
 SetLogger
 OperationInputValidation
Serialize stack step
 setOperationInput
 ResolveEndpoint
 OperationSerializer
Build stack step
 ClientRequestID
 ComputeContentLength
 UserAgent
 AddTimeOffsetMiddleware
 RecursionDetection
Finalize stack step
 ResolveAuthScheme
 GetIdentity
 ResolveEndpointV2
 disableHTTPS
 ComputePayloadHash
 Retry
 RetryMetricsHeader
 setLegacyContextSigningOptions
 Signing
Deserialize stack step
 AddRawResponseToMetadata
 ErrorCloseResponseBody
 CloseResponseBody
 ResponseErrorWrapper
 RequestIDRetriever
 OperationDeserializer
 AddTimeOffsetMiddleware
 RecordResponseTiming
 RequestResponseLogger
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Checks out the specified license for offline use.
func (c *Client) CheckoutBorrowLicense(ctx context.Context, params *CheckoutBorrowLicenseInput, optFns
```

```
...func(*Options)) (*CheckoutBorrowLicenseOutput, error) {
 if params == nil {
  params = &CheckoutBorrowLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "CheckoutBorrowLicense", params, optFns,
c.addOperationCheckoutBorrowLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*CheckoutBorrowLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type CheckoutBorrowLicenseInput struct {

 // Unique, case-sensitive identifier that you provide to ensure the idempotency of
 //
 the request.
 //
 // This member is required.
 ClientToken *string

 // Digital signature method. The possible value is JSON Web Signature (JWS)
 // algorithm PS384. For more information, see [RFC 7518 Digital Signature with RSASSA-PSS].
 //
 // [RFC 7518 Digital Signature with RSASSA-PSS]: https://tools.ietf.org/html/rfc7518#section-3.5
 //
 // This member is required.
 DigitalSignatureMethod types.DigitalSignatureMethod

 // License entitlements. Partial checkouts are not supported.
 //
 // This member is required.
 Entitlements []types.EntitlementData

 // Amazon Resource Name (ARN) of the license. The license must use the borrow
 // consumption configuration.
 //
 // This member is required.
 LicenseArn *string

 // Information about constraints.
 CheckoutMetadata []types.Metadata

 // Node ID.
```

```
 NodeId *string

 noSmithyDocumentSerde
}

type CheckoutBorrowLicenseOutput struct {

 // Information about constraints.
 CheckoutMetadata []types.Metadata

 // Allowed license entitlements.
 EntitlementsAllowed
 []types.EntitlementData

 // Date and time at which the license checkout expires.
 Expiration *string

 // Date and time at which the license checkout is issued.
 IssuedAt *string

 // Amazon Resource Name (ARN) of the license.
 LicenseArn *string

 // License consumption token.
 LicenseConsumptionToken *string

 // Node ID.
 NodeId *string

 // Signed token.
 SignedToken *string

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationCheckoutBorrowLicenseMiddlewares(stack *middleware.Stack, options Options) (err
error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpCheckoutBorrowLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpCheckoutBorrowLicense{}, middleware.After)
```

```
if err != nil {
 return
err
}
if err := addProtocolFinalizerMiddlewares(stack, options, "CheckoutBorrowLicense"); err != nil {
 return fmt.Errorf("add protocol finalizers: %v", err)
}

if err = addlegacyEndpointContextSetter(stack, options); err != nil {
 return err
}
if err = addSetLoggerMiddleware(stack, options); err != nil {
 return err
}
if err = addClientRequestID(stack); err != nil {
 return err
}
if err = addComputeContentLength(stack); err != nil {
 return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
 return err
}
if err = addComputePayloadSHA256(stack); err != nil {
 return err
}
if err = addRetry(stack, options); err != nil {
 return err
}
if err = addRawResponseToMetadata(stack); err != nil {
 return err
}
if err = addRecordResponseTiming(stack); err != nil {
 return err
}
if err = addClientUserAgent(stack, options); err != nil {
 return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return
err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
 return err
}
```

```
 if err = addTimeOffsetBuild(stack, c); err != nil {
  return err
 }
 if err = addUserAgentRetryMode(stack, options); err != nil {
  return err
 }
 if err = addOpCheckoutBorrowLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opCheckoutBorrowLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opCheckoutBorrowLicense(region
 string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName: "CheckoutBorrowLicense",
 }
}
```

```
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// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Checks in the specified license. Check in a license when it is no longer in use.
func (c *Client) CheckInLicense(ctx context.Context, params *CheckInLicenseInput, optFns ...func(*Options))
(*CheckInLicenseOutput, error) {
 if params == nil {
  params = &CheckInLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "CheckInLicense", params, optFns,
c.addOperationCheckInLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*CheckInLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

```
type CheckInLicenseInput struct {

 // License consumption token.
 //
 // This member is required.
 LicenseConsumptionToken *string

 // License beneficiary.
 Beneficiary *string

 noSmithyDocumentSerde
}

type
 CheckInLicenseOutput struct {
 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationCheckInLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpCheckInLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpCheckInLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "CheckInLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if
```

```
 err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
  return err
 }
 if err = addUserAgentRetryMode(stack, options); err != nil {
  return err
 }
 if err = addOpCheckInLicenseValidationMiddleware(stack); err != nil
 {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opCheckInLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
```

```
 return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opCheckInLicense(region string) *awsmiddleware.RegisterServiceMetadata
{
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:    ServiceID,
  OperationName: "CheckInLicense",
 }
}
```

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package licensemanager

import (
"context"
"fmt"
awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"

```
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Lists the licenses for your account.
func (c *Client) ListLicenses(ctx context.Context, params *ListLicensesInput, optFns ...func(*Options))
(*ListLicensesOutput, error) {
 if params == nil {
  params = &ListLicensesInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "ListLicenses", params, optFns,
c.addOperationListLicensesMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*ListLicensesOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type ListLicensesInput struct {

 // Filters to scope the results. The following filters are supported:
 //
 //   - Beneficiary
 //
 //   - ProductSKU
 //
 //   - Fingerprint
 //
 //   - Status
 Filters
 []types.Filter

 // Amazon Resource Names (ARNs) of the licenses.
 LicenseArns []string

 // Maximum number of results to return in a single call.
 MaxResults *int32

 // Token for the next set of results.
 NextToken *string

 noSmithyDocumentSerde
}
```

```
type ListLicensesOutput struct {

 // License details.
 Licenses []types.License

 // Token for the next set of results.
 NextToken *string

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationListLicensesMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpListLicenses{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpListLicenses{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack,
 options, "ListLicenses"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
```

```
 return err
}
if err = addRetry(stack, options); err != nil {
 return err
}
if err = addRawResponseToMetadata(stack); err != nil {
 return err
}
if err = addRecordResponseTiming(stack); err != nil {
 return err
}
if err = addClientUserAgent(stack, options); err != nil {
 return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack);
err != nil {
 return err
}
if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
 return err
}
if err = addTimeOffsetBuild(stack, c); err != nil {
 return err
}
if err = addUserAgentRetryMode(stack, options); err != nil {
 return err
}
if err = stack.Initialize.Add(newServiceMetadataMiddleware_opListLicenses(options.Region), middleware.Before);
err != nil {
 return err
}
if err = addRecursionDetection(stack); err != nil {
 return err
}
if err = addRequestIDRetrieverMiddleware(stack); err != nil {
 return err
}
if err = addResponseErrorMiddleware(stack); err != nil {
 return err
}
if err = addRequestResponseLogging(stack, options); err != nil {
 return err
}
if err = addDisableHTTPSMiddleware(stack, options); err != nil {
 return err
```

```
 }
 return nil
}

func newServiceMetadataMiddleware_opListLicenses(region string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:
    ServiceID,
  OperationName: "ListLicenses",
 }
}
CheckInLicense
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
  OperationInputValidation
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
 Build stack step
  ClientRequestID
  ComputeContentLength
  UserAgent
  AddTimeOffsetMiddleware
  RecursionDetection
 Finalize stack step
  ResolveAuthScheme
  GetIdentity
  ResolveEndpointV2
  disableHTTPS
  ComputePayloadHash
  Retry
  RetryMetricsHeader
  setLegacyContextSigningOptions
  Signing
 Deserialize stack step
  AddRawResponseToMetadata
  ErrorCloseResponseBody
  CloseResponseBody
  ResponseErrorWrapper
  RequestIDRetriever
  OperationDeserializer
  AddTimeOffsetMiddleware
  RecordResponseTiming
  RequestResponseLogger
```

```
{
  "smithy": "2.0",
  "shapes": {
    "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException": {
      "type": "structure",
      "members": {
        "message": {
          "target": "smithy.api#String"
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>You don't have sufficient access to perform this action.</p>",
        "smithy.api#error": "client"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ActiveDirectoryIdentityProvider": {
      "type": "structure",
      "members": {
        "DirectoryId": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The directory ID for an Active Directory identity provider.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#documentation":
"<p>Details about an Active Directory identity provider.</p>"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#AssociateUser": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#AssociateUserRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#AssociateUserResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
        },
```

```
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Associates the user to an EC2 instance to utilize user-based subscriptions.</p>\n        <note>\n        <p>Your estimated bill for charges on the number of users and related costs will take 48\n        hours to appear for billing periods that haven't closed (marked as <b>Pending</b> billing status) in Amazon Web Services Billing. For more information, see <a href=\"https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/invoice.html\">Viewing your\n        monthly charges</a> in the <i>Amazon Web Services Billing User Guide</i>.</p>\n        </note>",
            "smithy.api#http": {
              "code": 200,
              "method": "POST",
              "uri": "/user/AssociateUser"
            },
            "smithy.api#idempotent": {}
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#AssociateUserRequest": {
          "type": "structure",
          "members": {
            "Username": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The user name from the identity provider for the user.</p>",
                "smithy.api#required": {}
              }
            },
            "InstanceId": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The ID of the EC2 instance, which provides user-based subscriptions.</p>",
                "smithy.api#required": {}
              }
            },
            "IdentityProvider": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
```

```
            "traits": {
              "smithy.api#documentation": "<p>The identity provider of the user.</p>",
              "smithy.api#required": {}
            }
          },
          "Domain": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The domain name of the user.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#AssociateUserResponse": {
        "type": "structure",
        "members": {
          "InstanceUserSummary": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummary",
             "traits": {
              "smithy.api#documentation": "<p>Metadata that describes the associate user operation.</p>",
              "smithy.api#required": {}
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#BoxInteger": {
        "type": "integer"
      },
      "com.amazonaws.licensemanagerusersubscriptions#ConflictException": {
        "type": "structure",
        "members": {
          "message": {
            "target": "smithy.api#String"
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>The request couldn't be completed because it conflicted with the current
state of the\n      resource.</p>",
          "smithy.api#error": "server"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProvider":
 {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProviderRequest"
        },
        "output": {
```

```
            "target": "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProviderResponse"
          },
          "errors": [
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
             },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Deregisters the identity provider from providing user-based
subscriptions.</p>",
            "smithy.api#http": {
              "code": 200,
              "method": "POST",
              "uri": "/identity-provider/DeregisterIdentityProvider"
            },
            "smithy.api#idempotent": {}
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProviderRequest": {
          "type": "structure",
          "members": {
            "IdentityProvider": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
               "traits": {
                 "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
                 "smithy.api#required": {}
               }
            },
            "Product": {
              "target": "smithy.api#String",
```

```
            "traits": {
              "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
              "smithy.api#required": {}
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProviderResponse": {
        "type": "structure",
        "members": {
          "IdentityProviderSummary": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary",
            "traits": {
              "smithy.api#documentation":
"<p>Metadata that describes the results of an identity provider operation.</p>",
              "smithy.api#required": {}
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#DisassociateUser": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#DisassociateUserRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#DisassociateUserResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
           },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
          },
          {
```

```
                "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Disassociates the user from an EC2 instance providing user-based
subscriptions.</p>",
            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/user/DisassociateUser"
            },
            "smithy.api#idempotent": {}
        }

 },
    "com.amazonaws.licensemanagerusersubscriptions#DisassociateUserRequest": {
        "type": "structure",
        "members": {
            "Username": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The user name from the identity provider for the user.</p>",
                    "smithy.api#required": {}
                }
            },
            "InstanceId": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The ID of the EC2 instance, which provides user-based
subscriptions.</p>",
                    "smithy.api#required": {}
                }
            },
            "IdentityProvider": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
                "traits": {
                    "smithy.api#documentation":
 "<p>An object that specifies details for the identity provider.</p>",
                    "smithy.api#required": {}
                }
            },
            "Domain": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The domain name of the user.</p>"
                }
            }
        }
```

```
    },
    "com.amazonaws.licensemanagerusersubscriptions#DisassociateUserResponse": {
      "type": "structure",
      "members": {
        "InstanceUserSummary": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummary",
          "traits": {
            "smithy.api#documentation": "<p>Metadata that describes the associate user operation.</p>",
            "smithy.api#required": {}
          }
        }
      }
    },

"com.amazonaws.licensemanagerusersubscriptions#Filter": {
      "type": "structure",
      "members": {
        "Attribute": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The name of an attribute to use as a filter.</p>"
          }
        },
        "Operation": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The type of search (For example, eq, geq, leq)</p>"
          }
        },
        "Value": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>Value of the filter.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>A filter name and value pair that is used
 to return more specific results from a describe\n      operation. Filters can be used to match a set of resources by
specific criteria, such as tags,\n      attributes, or IDs.</p>"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#FilterList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#Filter"
      }
    },
```

```
    "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider": {
      "type": "union",
      "members": {
        "ActiveDirectoryIdentityProvider": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ActiveDirectoryIdentityProvider",
          "traits": {
            "smithy.api#documentation": "<p>An object that details an Active Directory identity provider.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#documentation":
"<p>Details about an identity provider.</p>"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary": {
      "type": "structure",
      "members": {
        "IdentityProvider": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
          "traits": {
            "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
            "smithy.api#required": {}
          }
        },
        "Settings": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#Settings",
          "traits": {
            "smithy.api#documentation": "<p>An object that details the registered identity providers product
related configuration\n      settings such as the subnets to provision VPC endpoints.</p>",
            "smithy.api#required":
{}
          }
        },
        "Product": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
            "smithy.api#required": {}
          }
        },
        "Status": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The status of an identity provider.</p>",
            "smithy.api#required": {}
          }
        },
```

```
            "FailureMessage": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The failure message associated with an identity provider.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#documentation":
"<p>Describes an identity provider.</p>"
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummaryList": {
         "type": "list",
         "member": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary"
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#InstanceSummary": {
         "type": "structure",
         "members": {
            "InstanceId": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The ID of the EC2 instance, which provides user-based
subscriptions.</p>",
                  "smithy.api#required": {}
               }
            },
            "Status": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The status
 of an EC2 instance resource.</p>",
                  "smithy.api#required": {}
               }
            },
            "Products": {
               "target": "com.amazonaws.licensemanagerusersubscriptions#StringList",
               "traits": {
                  "smithy.api#documentation": "<p>A list of provided user-based subscription products.</p>",
                  "smithy.api#required": {}
               }
            },
            "LastStatusCheckDate": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The date of the last status check.</p>"
```

```
            }
          },
          "StatusMessage": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The status message for an EC2 instance.</p>"
            }

      }
        },
        "traits": {
          "smithy.api#documentation": "<p>Describes an EC2 instance providing user-based subscriptions.</p>"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#InstanceSummaryList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceSummary"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummary": {
        "type": "structure",
        "members": {
          "Username": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The user name from the identity provider for the user.</p>",
              "smithy.api#required": {}
            }
          },
          "InstanceId": {
            "target": "smithy.api#String",
            "traits":
 {
              "smithy.api#documentation": "<p>The ID of the EC2 instance, which provides user-based
subscriptions.</p>",
              "smithy.api#required": {}
            }
          },
          "IdentityProvider": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
            "traits": {
              "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
              "smithy.api#required": {}
            }
          },
          "Status": {
            "target": "smithy.api#String",
```

```
            "traits": {
              "smithy.api#documentation": "<p>The status of a user associated with an EC2 instance.</p>",
              "smithy.api#required": {}
            }
          },
          "StatusMessage": {
            "target": "smithy.api#String",
             "traits": {
              "smithy.api#documentation": "<p>The status message for users of an EC2 instance.</p>"
            }
          },
          "Domain": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The domain name of the user.</p>"
            }
          },
          "AssociationDate": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The date a user was associated with an EC2 instance.</p>"
            }
          },
          "DisassociationDate": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The date a user was disassociated from an EC2 instance.</p>"
            }
          }

  },
        "traits": {
          "smithy.api#documentation": "<p>Describes users of an EC2 instance providing user-based
subscriptions.</p>"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummaryList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummary"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#InternalServerException": {
        "type": "structure",
        "members": {
          "message": {
            "target": "smithy.api#String"
          }
```

```
        },
        "traits": {
            "smithy.api#documentation": "<p>An exception occurred with the service.</p>",
            "smithy.api#error": "server"
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#LicenseManagerUserSubscriptions": {
        "type": "service",

     "version": "2018-05-10",
        "operations": [
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#AssociateUser"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProvider"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#DisassociateUser"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProviders"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ListInstances"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptions"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociations"

},
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProvider"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscription"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscription"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettings"
            }
        ],
        "traits": {
            "aws.api#service": {
```

```
            "sdkId": "License Manager User Subscriptions",
            "arnNamespace": "license-manager-user-subscriptions",
            "cloudTrailEventSource": "license-manager-user-subscriptions.amazonaws.com"
        },
        "aws.auth#sigv4": {
            "name": "license-manager-user-subscriptions"
        },
        "aws.protocols#restJson1": {},
        "smithy.api#cors": {
            "additionalAllowedHeaders": [
                "*",
                "content-type",
                "x-amz-content-sha256",
                "x-amz-user-agent",
                "x-amzn-platform-id",
                "x-amzn-trace-id",
                "content-length",
                "x-api-key",
                "authorization",
                "x-amz-date",
                "x-amz-security-token",
                "Access-Control-Allow-Headers",
                "Access-Control-Allow-Methods",
                "Access-Control-Allow-Origin"
            ],
            "additionalExposedHeaders": [
                "x-amzn-errortype",
                "x-amzn-requestid",
                "x-amzn-trace-id"

]
        },
        "smithy.api#documentation": "<p>With License Manager, you can create user-based subscriptions to utilize licensed software with\n      a per user subscription fee on Amazon EC2 instances.</p>",
        "smithy.api#title": "AWS License Manager User Subscriptions",
        "smithy.rules#endpointRuleSet": {
            "version": "1.0",
            "parameters": {
                "Region": {
                    "builtIn": "AWS::Region",
                    "required": false,
                    "documentation": "The AWS region used to dispatch the request.",
                    "type": "String"
                },
                "UseDualStack": {
                    "builtIn": "AWS::UseDualStack",
                    "required": true,
                    "default": false,
```

```
            "documentation": "When true, use the dual-stack
endpoint. If the configured endpoint does not support dual-stack, dispatching the request MAY return an error.",
            "type": "Boolean"
          },
          "UseFIPS": {
            "builtIn": "AWS::UseFIPS",
            "required": true,
            "default": false,
            "documentation": "When true, send this request to the FIPS-compliant regional endpoint. If the
configured endpoint does not have a FIPS compliant endpoint, dispatching the request will return an error.",
            "type": "Boolean"
          },
          "Endpoint": {
            "builtIn": "SDK::Endpoint",
            "required": false,
            "documentation": "Override the endpoint used to send this request",
            "type": "String"
          }

    },
        "rules": [
          {
            "conditions": [
              {
                "fn": "isSet",
                "argv": [
                  {
                    "ref": "Endpoint"
                  }
                ]
              }
            ],
            "type": "tree",
            "rules": [
              {
                "conditions": [
                  {
                    "fn": "booleanEquals",
                    "argv": [
                      {
                        "ref": "UseFIPS"
                      },

                      true
                      ]
                  }
                ],
                "error": "Invalid Configuration: FIPS and custom endpoint are not supported",
```

```
            "type": "error"
          },
          {
            "conditions": [
              {
                "fn": "booleanEquals",
                "argv": [
                  {
                    "ref": "UseDualStack"
                  },
                  true
                ]
              }
            ],

"error": "Invalid Configuration: Dualstack and custom endpoint are not supported",
            "type": "error"
          },
          {
            "conditions": [],
            "endpoint": {
              "url": {
                "ref": "Endpoint"
              },
              "properties": {},
              "headers": {}
            },
            "type": "endpoint"
          }
        ]
      },
      {
        "conditions": [
          {
            "fn": "isSet",
            "argv": [

{
                "ref": "Region"
              }
            ]
          }
        ],
        "type": "tree",
        "rules": [
          {
            "conditions": [
              {
```

```
                "fn": "aws.partition",
                "argv": [
                  {
                    "ref": "Region"
                  }
                ],
                "assign": "PartitionResult"
              }
            ],
            "type": "tree",

    "rules": [
              {
                "conditions": [
                  {
                    "fn": "booleanEquals",
                    "argv": [
                      {
                        "ref": "UseFIPS"
                      },
                      true
                    ]
                  },
                  {
                    "fn": "booleanEquals",
                    "argv": [
                      {
                        "ref": "UseDualStack"

                      },
                      true
                    ]
                  }
                ],
                "type": "tree",
                "rules": [
                  {
                    "conditions": [
                      {
                        "fn": "booleanEquals",
                        "argv": [
                          true,
                          {
                            "fn": "getAttr",

  "argv": [
                                  {
                                    "ref": "PartitionResult"
```

```
                                    },
                                    "supportsFIPS"
                                ]
                            }
                        ]
                    },
                    {
                        "fn": "booleanEquals",
                        "argv": [
                            true,
                            {

            "fn": "getAttr",
                                "argv": [
                                    {
                                        "ref": "PartitionResult"
                                    },
                                    "supportsDualStack"
                                ]
                            }
                        ]
                    }
                ],
                "type": "tree",
                "rules": [
                    {

        "conditions": [],
                                "endpoint": {
                                    "url": "https://license-manager-user-subscriptions-
fips.{Region}.{PartitionResult#dualStackDnsSuffix}",
                                    "properties": {},
                                    "headers": {}
                                },
                                "type": "endpoint"
                            }
                        ]
                    },
                    {
                        "conditions": [],
                        "error": "FIPS and DualStack are enabled, but this partition does not support one or
both",
                         "type": "error"
                    }
                ]
            },
            {
                "conditions": [
```

```
                {
                  "fn": "booleanEquals",
                  "argv": [
                    {
                      "ref": "UseFIPS"
                    },
                    true
                  ]
                }
              ],
              "type": "tree",

    "rules": [
                {
                  "conditions": [
                    {
                      "fn": "booleanEquals",
                      "argv": [
                        true,
                        {
                          "fn": "getAttr",
                          "argv": [
                            {
                              "ref": "PartitionResult"
                            },
                            "supportsFIPS"

                       ]
                          }
                        ]
                    }
                  ],
                  "type": "tree",
                  "rules": [
                    {
                      "conditions": [],
                      "endpoint": {
                        "url": "https://license-manager-user-subscriptions-
fips.{Region}.{PartitionResult#dnsSuffix}",
                        "properties": {},
                        "headers": {}

            },
                      "type": "endpoint"
                    }
                  ]
                },
                {
```

```
            "conditions": [],
            "error": "FIPS is enabled but this partition does not support FIPS",
            "type": "error"
          }
        ]
      },
      {
        "conditions": [
          {
            "fn": "booleanEquals",
            "argv": [
              {
                "ref": "UseDualStack"
              },
              true
            ]
          }
        ],
        "type": "tree",
        "rules": [
          {
            "conditions": [
              {
                "fn": "booleanEquals",
                "argv": [
                  true,
                  {

                    "fn": "getAttr",
                      "argv": [
                        {
                          "ref": "PartitionResult"
                        },
                        "supportsDualStack"
                      ]
                    }
                  ]
                }
              ],
              "type": "tree",
              "rules": [
                {

                  "conditions": [],
                   "endpoint": {
                      "url": "https://license-manager-user-
subscriptions.{Region}.{PartitionResult#dualStackDnsSuffix}",
                      "properties": {},
```

```
                                    "headers": {}
                                },
                                "type": "endpoint"
                            }
                        ]
                    },
                    {
                        "conditions": [],
                        "error": "DualStack is enabled but this partition does
 not support DualStack",
                        "type": "error"
                    }
                ]
            },
            {
                "conditions": [],
                "endpoint": {
                    "url": "https://license-manager-user-
subscriptions.{Region}.{PartitionResult#dnsSuffix}",
                    "properties": {},
                    "headers": {}
                },
                "type": "endpoint"
            }
        ]
    }
  ]
},
{
  "conditions":
[],
  "error": "Invalid Configuration: Missing Region",
  "type": "error"
}
  ]
},
"smithy.rules#endpointTests": {
  "testCases": [
    {
      "documentation": "For region us-east-1 with FIPS enabled and DualStack enabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-user-subscriptions-fips.us-east-1.api.aws"
        }
      },
      "params": {
        "Region": "us-east-1",
        "UseFIPS": true,
```

```
            "UseDualStack": true
          }
        },
        {
          "documentation":
"For region us-east-1 with FIPS enabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-user-subscriptions-fips.us-east-1.amazonaws.com"
            }
          },
          "params": {
            "Region": "us-east-1",
            "UseFIPS": true,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-east-1 with FIPS disabled and DualStack enabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-user-subscriptions.us-east-1.api.aws"
            }
          },

        "params": {
            "Region": "us-east-1",
            "UseFIPS": false,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region us-east-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-user-subscriptions.us-east-1.amazonaws.com"
            }
          },
          "params": {
            "Region": "us-east-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region cn-north-1 with
FIPS enabled and DualStack enabled",
          "expect": {
```

```
                "endpoint": {
                  "url": "https://license-manager-user-subscriptions-fips.cn-north-
1.api.amazonwebservices.com.cn"
                }
              },
              "params": {
                "Region": "cn-north-1",
                "UseFIPS": true,
                "UseDualStack": true
              }
            },
            {
              "documentation": "For region cn-north-1 with FIPS enabled and DualStack disabled",
              "expect": {
                "endpoint": {
                  "url": "https://license-manager-user-subscriptions-fips.cn-north-1.amazonaws.com.cn"
                }
              },

        "params": {
                "Region": "cn-north-1",
                "UseFIPS": true,
                "UseDualStack": false
              }
            },
            {
              "documentation": "For region cn-north-1 with FIPS disabled and DualStack enabled",
              "expect": {
                "endpoint": {
                  "url": "https://license-manager-user-subscriptions.cn-north-1.api.amazonwebservices.com.cn"
                }
              },
              "params": {
                "Region": "cn-north-1",
                "UseFIPS": false,
                "UseDualStack": true
              }
            },
            {
              "documentation": "For region cn-north-1
 with FIPS disabled and DualStack disabled",
              "expect": {
                "endpoint": {
                  "url": "https://license-manager-user-subscriptions.cn-north-1.amazonaws.com.cn"
                }
              },
              "params": {
                "Region": "cn-north-1",
```

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            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack enabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-user-subscriptions-fips.us-gov-east-1.api.aws"
            }
          },

    "params": {
            "Region": "us-gov-east-1",
            "UseFIPS": true,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-user-subscriptions-fips.us-gov-east-1.amazonaws.com"
            }
          },
          "params": {
            "Region": "us-gov-east-1",
            "UseFIPS": true,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-gov-east-1
with FIPS disabled and DualStack enabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-user-subscriptions.us-gov-east-1.api.aws"
            }
          },
          "params": {
            "Region": "us-gov-east-1",
            "UseFIPS": false,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region us-gov-east-1 with FIPS disabled and DualStack disabled",
          "expect": {
```

```
                "endpoint": {
                  "url": "https://license-manager-user-subscriptions.us-gov-east-1.amazonaws.com"
                }
              },

    "params": {
                "Region": "us-gov-east-1",
                "UseFIPS": false,
                "UseDualStack": false
              }
            },
            {
              "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack enabled",
              "expect": {
                "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
              },
              "params": {
                "Region": "us-iso-east-1",
                "UseFIPS": true,
                "UseDualStack": true
              }
            },
            {
              "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack disabled",
              "expect":
{
                "endpoint": {
                  "url": "https://license-manager-user-subscriptions-fips.us-iso-east-1.c2s.ic.gov"
                }
              },
              "params": {
                "Region": "us-iso-east-1",
                "UseFIPS": true,
                "UseDualStack": false
              }
            },
            {
              "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack enabled",
              "expect": {
                "error": "DualStack is enabled but this partition does not support DualStack"
              },
              "params": {
                "Region": "us-iso-east-1",
                "UseFIPS": false,
                "UseDualStack":
true
              }
            },
```

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        {
          "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-user-subscriptions.us-iso-east-1.c2s.ic.gov"
            }
          },
          "params": {
            "Region": "us-iso-east-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack enabled",
          "expect": {
            "error": "FIPS and DualStack are enabled, but
this partition does not support one or both"
          },
          "params": {
            "Region": "us-isob-east-1",
            "UseFIPS": true,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-user-subscriptions-fips.us-isob-east-1.sc2s.sgov.gov"
            }
          },
          "params": {
            "Region": "us-isob-east-1",
            "UseFIPS": true,
            "UseDualStack": false
          }

    },
        {
          "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack enabled",
          "expect": {
            "error": "DualStack is enabled but this partition does not support DualStack"
          },
          "params": {
            "Region": "us-isob-east-1",
            "UseFIPS": false,
            "UseDualStack": true
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```
      }
    },
    {
      "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-user-subscriptions.us-isob-east-1.sc2s.sgov.gov"
        }
      },
       "params": {
        "Region": "us-isob-east-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For custom endpoint with region set and fips disabled and dualstack disabled",
      "expect": {
        "endpoint": {
          "url": "https://example.com"
        }
      },
      "params": {
        "Region": "us-east-1",
        "UseFIPS": false,
        "UseDualStack": false,
        "Endpoint": "https://example.com"
      }
    },
    {

"documentation": "For custom endpoint with region not set and fips disabled and dualstack disabled",
      "expect": {
        "endpoint": {
          "url": "https://example.com"
        }
      },
      "params": {
        "UseFIPS": false,
        "UseDualStack": false,
        "Endpoint": "https://example.com"
      }
    },
    {
      "documentation": "For custom endpoint with fips enabled and dualstack disabled",
      "expect": {
        "error": "Invalid Configuration: FIPS and custom endpoint are not supported"
      },
```

```
            "params": {
              "Region": "us-east-1",
               "UseFIPS": true,
              "UseDualStack": false,
              "Endpoint": "https://example.com"
            }
          },
          {
            "documentation": "For custom endpoint with fips disabled and dualstack enabled",
            "expect": {
              "error": "Invalid Configuration: Dualstack and custom endpoint are not supported"
            },
            "params": {
              "Region": "us-east-1",
              "UseFIPS": false,
              "UseDualStack": true,
              "Endpoint": "https://example.com"
            }
          },
          {
            "documentation": "Missing region",
            "expect": {
               "error": "Invalid Configuration: Missing Region"
            }
          }
        ],
        "version": "1.0"
      }
    }
  },
  "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProviders": {
    "type": "operation",
    "input": {
      "target": "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProvidersRequest"
    },
    "output": {
      "target": "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProvidersResponse"
    },
    "errors": [
      {
        "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
      },
      {
        "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
      },
      {
        "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
```

```
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Lists the identity providers for user-based subscriptions.</p>",
            "smithy.api#http": {
              "code": 200,
              "method": "POST",
              "uri": "/identity-provider/ListIdentityProviders"
            },
            "smithy.api#paginated":
{
              "inputToken": "NextToken",
              "outputToken": "NextToken",
              "pageSize": "MaxResults",
              "items": "IdentityProviderSummaries"
            }
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProvidersRequest": {
          "type": "structure",
          "members": {
            "MaxResults": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#BoxInteger",
              "traits": {
                "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
              }
            },
            "NextToken": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
              }
            }
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProvidersResponse":
```

```
{
        "type": "structure",
        "members": {
          "IdentityProviderSummaries": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummaryList",
            "traits": {
              "smithy.api#documentation": "<p>Metadata that describes the list identity providers operation.</p>",
              "smithy.api#required": {}
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListInstances": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListInstancesRequest"
         },
        "output": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListInstancesResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
           },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
          }
```

```
        ],
        "traits": {
          "smithy.api#documentation": "<p>Lists the EC2 instances providing user-based subscriptions.</p>",
          "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/instance/ListInstances"
          },
          "smithy.api#paginated": {
            "inputToken": "NextToken",
            "outputToken": "NextToken",
            "pageSize": "MaxResults",
            "items": "InstanceSummaries"
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListInstancesRequest": {
        "type": "structure",
        "members": {
          "MaxResults": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#BoxInteger",
             "traits": {
               "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          },
          "Filters": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#FilterList",
            "traits": {
              "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those
that match one or\n      more sets of key-value pairs that you specify.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListInstancesResponse": {
        "type":
 "structure",
        "members": {
          "InstanceSummaries": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceSummaryList",
            "traits": {
              "smithy.api#documentation": "<p>Metadata that describes the list instances operation.</p>"
```

```
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptions": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptionsRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptionsResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Lists the user-based subscription products available from an identity provider.</p>",
          "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/user/ListProductSubscriptions"
```

```
            },
            "smithy.api#paginated": {
               "inputToken": "NextToken",
               "outputToken": "NextToken",
               "pageSize": "MaxResults",
               "items": "ProductUserSummaries"
            }
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptionsRequest": {
         "type": "structure",
         "members": {
            "Product": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The name
 of the user-based subscription product.</p>",
                  "smithy.api#required": {}
               }
            },
            "IdentityProvider": {
               "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
               "traits": {
                  "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
                  "smithy.api#required": {}
               }
            },
            "MaxResults": {
               "target": "com.amazonaws.licensemanagerusersubscriptions#BoxInteger",
               "traits": {
                  "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
               }
            },
            "Filters": {
               "target": "com.amazonaws.licensemanagerusersubscriptions#FilterList",
               "traits": {

  "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those that match
 one or\n      more sets of key-value pairs that you specify.</p>"
               }
            },
            "NextToken": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>Token for the next set of results.</p>"
               }
            }
         }
```

```
    },
    "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptionsResponse": {
      "type": "structure",
      "members": {
        "ProductUserSummaries": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummaryList",
          "traits": {
            "smithy.api#documentation": "<p>Metadata that describes the list product subscriptions
operation.</p>"
          }
        },

     "NextToken": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>Token for the next set of results.</p>"
          }
        }
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociations": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociationsRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociationsResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
        },
        {
          "target":
 "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
        },
```

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            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists user associations for an identity provider.</p>",
            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/user/ListUserAssociations"
            },
            "smithy.api#paginated":
{
                "inputToken": "NextToken",
                "outputToken": "NextToken",
                "pageSize": "MaxResults",
                "items": "InstanceUserSummaries"
            }
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociationsRequest": {
        "type": "structure",
        "members": {
            "InstanceId": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The ID of the EC2 instance, which provides user-based
subscriptions.</p>",
                    "smithy.api#required": {}
                }
            },
            "IdentityProvider": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
                "traits": {
                    "smithy.api#documentation": "<p>An object that specifies details for the identity
 provider.</p>",
                    "smithy.api#required": {}
                }
            },
            "MaxResults": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#BoxInteger",
                "traits": {
                    "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
                }
            },
            "Filters": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#FilterList",
                "traits": {
```

```
                "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those
that match one or\n      more sets of key-value pairs that you specify.</p>"
              }
            },
            "NextToken": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>Token for
 the next set of results.</p>"
              }
            }
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociationsResponse": {
          "type": "structure",
          "members": {
            "InstanceUserSummaries": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummaryList",
              "traits": {
                "smithy.api#documentation": "<p>Metadata that describes the list user association operation.</p>"
              }
            },
            "NextToken": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
              }
            }
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummary": {
          "type": "structure",
          "members": {

          "Username": {
                "target": "smithy.api#String",
                "traits": {
                  "smithy.api#documentation": "<p>The user name from the identity provider of the user.</p>",
                  "smithy.api#required": {}
                }
            },
            "Product": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
                "smithy.api#required": {}
              }
            },
```

```
            "IdentityProvider": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
              "traits": {
                "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
                "smithy.api#required": {}
              }

    },
            "Status": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The status of a product for a user.</p>",
                "smithy.api#required": {}
              }
            },
            "StatusMessage": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The status message for a product for a user.</p>"
              }
            },
            "Domain": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The domain name of the user.</p>"
              }
            },
            "SubscriptionStartDate": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The
start date of a subscription.</p>"
              }
            },
            "SubscriptionEndDate": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The end date of a subscription.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>The summary of the user-based subscription products for a user.</p>"
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummaryList": {
          "type": "list",
          "member": {
```

```
        "target": "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummary"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProvider": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProviderRequest"
       },
      "output": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProviderResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
         },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Registers an identity provider for user-based subscriptions.</p>",
        "smithy.api#http": {
          "code": 200,
          "method": "POST",
          "uri": "/identity-provider/RegisterIdentityProvider"
        },
        "smithy.api#idempotent": {}
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProviderRequest": {
      "type": "structure",
      "members": {
        "IdentityProvider": {
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```
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
            "traits": {
              "smithy.api#documentation": "<p>An object that specifies details for the identity
provider.</p>",
              "smithy.api#required": {}
            }
          },
          "Product": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
              "smithy.api#required": {}
            }
          },
          "Settings": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#Settings",
            "traits": {
              "smithy.api#documentation": "<p>The registered identity providers product related configuration
settings such as the\n      subnets to provision VPC endpoints.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProviderResponse": {
        "type": "structure",
        "members": {
          "IdentityProviderSummary":
{
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary",
            "traits": {
              "smithy.api#documentation": "<p>Metadata that describes the results of an identity provider
operation.</p>",
              "smithy.api#required": {}
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException": {
        "type": "structure",
        "members": {
          "message": {
            "target": "smithy.api#String"
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>The resource couldn't be found.</p>",
          "smithy.api#error": "client",
          "smithy.api#httpError": 404
```

```
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#SecurityGroup": {
        "type": "string",

    "traits": {
          "smithy.api#length": {
            "min": 5,
            "max": 200
          },
          "smithy.api#pattern": "^sg-(([0-9a-z]{8})|([0-9a-z]{17}))$"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException": {
        "type": "structure",
        "members": {
          "message": {
            "target": "smithy.api#String"
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>The request failed because a service quota is exceeded.</p>",
          "smithy.api#error": "client"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#Settings": {
        "type": "structure",
        "members": {
          "Subnets": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#Subnets",
            "traits": {
              "smithy.api#documentation":
"<p>The subnets defined for the registered identity provider.</p>",
              "smithy.api#length": {
                "min": 1
              },
              "smithy.api#required": {}
            }
          },
          "SecurityGroupId": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#SecurityGroup",
            "traits": {
              "smithy.api#documentation": "<p>A security group ID that allows inbound TCP port 1688
communication between resources in\n      your VPC and the VPC endpoint for activation servers.</p>",
              "smithy.api#required": {}
            }
          }
        },
```

```
        "traits": {
            "smithy.api#documentation": "<p>The registered identity providers product related configuration settings such as the\n      subnets to provision VPC endpoints, and the security group ID that
 is associated with the VPC\n      endpoints. The security group should permit inbound TCP port 1688 communication from resources\n      in the VPC.</p>"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscription": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscriptionRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscriptionResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
             },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Starts a product subscription for a user with the specified identity provider.</p>\n        <note>\n          <p>Your estimated bill for charges on the number of users and related costs will take 48\n        hours to appear for billing periods that haven't closed (marked as <b>Pending</b> billing status) in Amazon Web Services Billing.
 For more information, see <a href=\"https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/invoice.html\">Viewing your\n          monthly charges</a> in the <i>Amazon Web Services Billing User Guide</i>.</p>\n        </note>",
            "smithy.api#http": {
                "code": 200,
```

```
            "method": "POST",
            "uri": "/user/StartProductSubscription"
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscriptionRequest": {
        "type": "structure",
        "members": {
          "Username": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The user name from the identity provider of the user.</p>",
              "smithy.api#required": {}
            }
          },
          "IdentityProvider": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
            "traits": {
              "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
              "smithy.api#required": {}
            }
          },
          "Product": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
              "smithy.api#required": {}
            }
          },
          "Domain": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The domain name of the user.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscriptionResponse": {
        "type": "structure",
        "members": {
          "ProductUserSummary": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummary",
            "traits": {
              "smithy.api#documentation": "<p>Metadata that describes the start product subscription
operation.</p>",
              "smithy.api#required": {}
            }
          }
```

```
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscription": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscriptionRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscriptionResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"

    },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Stops a product subscription for a user with the specified identity
provider.</p>",
           "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/user/StopProductSubscription"
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscriptionRequest": {
        "type": "structure",
        "members": {
          "Username": {
```

```
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The user name from the identity provider for the user.</p>",
              "smithy.api#required": {}
            }
          },
          "IdentityProvider": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
            "traits": {
              "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
              "smithy.api#required":
{}
            }
          },
          "Product": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
              "smithy.api#required": {}
            }
          },
          "Domain": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The domain name of the user.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscriptionResponse": {
        "type": "structure",
        "members": {
          "ProductUserSummary": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummary",
            "traits": {
              "smithy.api#documentation":
"<p>Metadata that describes the start product subscription operation.</p>",
              "smithy.api#required": {}
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#StringList": {
        "type": "list",
        "member": {
          "target": "smithy.api#String"
        }
      },
```

```
    "com.amazonaws.licensemanagerusersubscriptions#Subnet": {
      "type": "string",
      "traits": {
        "smithy.api#pattern": "subnet-[a-z0-9]{8,17}"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#Subnets": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#Subnet"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException": {
      "type": "structure",
      "members": {
        "message": {

         "target": "smithy.api#String"
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>The request was denied because of request throttling. Retry the
request.</p>",
        "smithy.api#error": "client"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettings": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettingsRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettingsResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
        }
      ],
```

```
        "traits": {
            "smithy.api#documentation": "<p>Updates additional product configuration settings for the registered identity\n      provider.</p>",
            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/identity-provider/UpdateIdentityProviderSettings"
            },
            "smithy.api#idempotent": {}
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettingsRequest": {
        "type": "structure",
        "members": {
            "IdentityProvider": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
                 "traits": {
                    "smithy.api#required": {}
                }
            },
            "Product": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
                    "smithy.api#required": {}
                }
            },
            "UpdateSettings": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#UpdateSettings",
                "traits": {
                    "smithy.api#documentation": "<p>Updates the registered identity providers product related configuration settings. You can\n      update any combination of settings in a single operation such as the:</p>\n <ul>\n            <li>\n                <p>Subnets which you want to add to provision VPC endpoints.</p>\n            </li>\n            <li>\n                <p>Subnets which you want to remove the VPC endpoints from.</p>\n            </li>\n <li>\n                <p>Security group ID which permits traffic to the VPC endpoints.</p>\n            </li>\n        </ul>",
                    "smithy.api#required": {}
                }
            }
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettingsResponse": {
        "type": "structure",
        "members": {
            "IdentityProviderSummary": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary",
                "traits": {
                    "smithy.api#required": {}
                }
```

```
            }
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#UpdateSettings": {
          "type": "structure",
          "members": {
            "AddSubnets": {

             "target": "com.amazonaws.licensemanagerusersubscriptions#Subnets",
                "traits": {
                  "smithy.api#documentation": "<p>The ID of one or more subnets in which License Manager will
create a VPC endpoint for products that\n      require connectivity to activation servers.</p>",
                  "smithy.api#required": {}
                }
            },
            "RemoveSubnets": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#Subnets",
              "traits": {
                "smithy.api#documentation": "<p>The ID of one or more subnets to remove.</p>",
                "smithy.api#required": {}
              }
            },
            "SecurityGroupId": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#SecurityGroup",
              "traits": {
                "smithy.api#documentation": "<p>A security group ID
 that allows inbound TCP port 1688 communication between resources in\n      your VPC and the VPC endpoints for
activation servers.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>Updates the registered identity providers product related configuration
settings such as\n      the subnets to provision VPC endpoints.</p>"
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#ValidationException": {
          "type": "structure",
          "members": {
            "message": {
              "target": "smithy.api#String"
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>A parameter is not valid.</p>",
            "smithy.api#error": "client"
          }
        }
```

```
  }
}
```

1.567 aws-sdk-go-v2-service-internal-accept-encoding 1.11.3

1.567.1 Available under license :

```
name: License Scan

on: [pull_request]

jobs:
 licensescan:
   name: License Scan
   runs-on: ubuntu-latest
   strategy:
     matrix:
       python-version: [3.9]

   steps:
     - name: Checkout target
       uses: actions/checkout@v2
       with:
         path: sdkbase
         ref: ${{ github.base_ref }}
     - name: Checkout this ref
       uses: actions/checkout@v2
       with:
         path: new-ref
         fetch-depth: 0
     - name: Get Diff
       run: git --git-dir ./new-ref/.git diff --name-only --diff-filter=ACMRT ${{ github.event.pull_request.base.sha }}
${{ github.sha }} > refDiffFiles.txt
     - name: Get Target Files
       run: git --git-dir ./sdkbase/.git ls-files | grep -xf refDiffFiles.txt - > targetFiles.txt
     - name: Checkout scancode
       uses: actions/checkout@v2
       with:
         repository: nexB/scancode-toolkit
         path: scancode-toolkit
         fetch-depth: 1
     - name: Set up Python ${{ matrix.python-version }}
       uses: actions/setup-python@v2
       with:
         python-version: ${{ matrix.python-version }}
     # ScanCode
```

```
    - name: Self-configure scancode
      working-directory: ./scancode-toolkit
      run: ./scancode --help
    - name: Run Scan code on target
      run: cat targetFiles.txt | while read filename; do echo ./sdkbase/$filename; done | xargs ./scancode-toolkit/scancode -l -n 30 --json-pp - | grep short_name | sort | uniq >> old-licenses.txt
    - name: Run Scan code on pr ref
      run: cat refDiffFiles.txt | while read filename; do echo ./new-ref/$filename; done | xargs ./scancode-toolkit/scancode -l -n 30 --json-pp - | grep short_name | sort | uniq >> new-licenses.txt
    # compare
    - name: License test
      run: if ! cmp old-licenses.txt new-licenses.txt; then echo "Licenses differ! Failing."; exit -1; else echo "Licenses are the same. Success."; exit 0; fi
CreateLicense
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
  OperationInputValidation
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
 Build stack step
  ClientRequestID
  ComputeContentLength
  UserAgent
  AddTimeOffsetMiddleware
  RecursionDetection
 Finalize stack step
  ResolveAuthScheme
  GetIdentity
  ResolveEndpointV2
  disableHTTPS
  ComputePayloadHash
  Retry
  RetryMetricsHeader
  setLegacyContextSigningOptions
  Signing
 Deserialize stack step
  AddRawResponseToMetadata
  ErrorCloseResponseBody
  CloseResponseBody
  ResponseErrorWrapper
  RequestIDRetriever
  OperationDeserializer
  AddTimeOffsetMiddleware
  RecordResponseTiming
```

RequestResponseLogger
ListReceivedLicenses
Initialize stack step
RegisterServiceMetadata
legacyEndpointContextSetter
SetLogger
Serialize stack step
setOperationInput
ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
UserAgent
AddTimeOffsetMiddleware
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
AddTimeOffsetMiddleware
RecordResponseTiming
RequestResponseLogger

```
{
  "smithy": "2.0",
  "shapes": {
    "com.amazonaws.licensemanagerlinuxsubscriptions#BoxInteger": {
      "type": "integer"
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#BoxLong": {
      "type": "long"
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#Filter": {
      "type": "structure",
      "members": {
```

```
            "Name": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The type of name to filter by.</p>"
               }
            },
            "Values": {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringList",
               "traits": {
                  "smithy.api#documentation": "<p>One or more values for the name to filter by.</p>"
               }
            },
            "Operator": {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Operator",
                "traits": {
                  "smithy.api#documentation": "<p>An operator for filtering results.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#documentation": "<p>A filter object that is used to return more specific results from a describe
operation.\n      Filters can be used to match a set of resources by specific criteria.</p>"
         }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#FilterList": {
         "type": "list",
         "member": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Filter"
         }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettings": {
         "type": "operation",
         "input": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettingsRequest"
         },
         "output": {

           "target": "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettingsResponse"
         },
         "errors": [
            {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
            },
            {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
            },
            {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
```

```
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists the Linux subscriptions service settings.</p>",
            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/subscription/GetServiceSettings"
            },
            "smithy.api#idempotent": {}
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettingsRequest":
{
        "type": "structure",
        "members": {}
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettingsResponse": {
        "type": "structure",
        "members": {
            "LinuxSubscriptionsDiscovery": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscovery",
                "traits": {
                    "smithy.api#documentation": "<p>Lists if discovery has been enabled for Linux subscriptions.</p>"
                }
            },
            "LinuxSubscriptionsDiscoverySettings": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscoverySettings",
                "traits": {
                    "smithy.api#documentation": "<p>Lists the settings defined for Linux subscriptions discovery. The
settings include if\n      Organizations integration has been enabled, and
 which Regions data will be aggregated from.</p>"
                }
            },
            "Status": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Status",
                "traits": {
                    "smithy.api#documentation": "<p>Indicates the status of Linux subscriptions settings being
applied.</p>"
                }
            },
            "StatusMessage": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringMap",
                "traits": {
                    "smithy.api#documentation": "<p>A message which details the Linux subscriptions service settings
current status.</p>"
                }
            },
```

```
        "HomeRegions": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringList",
          "traits": {
            "smithy.api#documentation": "<p>The Region in which License Manager displays
the aggregated data for Linux\n      subscriptions.</p>"
          }
        }
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#Instance": {
      "type": "structure",
      "members": {
        "AmiId": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The AMI ID used to launch the instance.</p>"
          }
        },
        "InstanceID": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The instance ID of the resource.</p>"
          }
        },
        "InstanceType": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The instance type of the resource.</p>"
          }

      },
        "AccountID": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The account ID which owns the instance.</p>"
          }
        },
        "Status": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The status of the instance.</p>"
          }
        },
        "Region": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The Region the instance is running in.</p>"
          }
```

```
            },
            "UsageOperation": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The usage operation of the instance. For more information, see For
 more information, see\n        <a href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/linux-
subscriptions-usage-operation.html\">Usage\n        operation values</a> in the <i>License Manager User
Guide</i>.</p>"
               }
            },
            "ProductCode": {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ProductCodeList",
               "traits": {
                  "smithy.api#documentation": "<p>The product code for the instance. For more information, see <a
href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/linux-subscriptions-usage-
operation.html\">Usage\n        operation values</a> in the <i>License Manager User Guide</i> .</p>"
               }
            },
            "LastUpdatedTime": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The time in which the last discovery
 updated the instance details.</p>"
               }
            },
            "SubscriptionName": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The name of the subscription being used by the instance.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#documentation": "<p>Details discovered information about a running instance using Linux
subscriptions.</p>"
         }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#InstanceList": {
         "type": "list",
         "member": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Instance"
         }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException": {
         "type": "structure",
         "members": {
            "message": {
               "target": "smithy.api#String"
```

```
        }
    },
    "traits": {
        "smithy.api#documentation": "<p>An exception occurred with the service.</p>",
        "smithy.api#error": "server"
    }
},
"com.amazonaws.licensemanagerlinuxsubscriptions#LicenseManagerLinuxSubscriptions": {
    "type": "service",
    "version": "2018-05-10",
    "operations": [
        {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettings"
        },
        {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstances"
        },
        {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptions"
        },
        {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettings"
        }
    ],

"traits": {
        "aws.api#service": {
            "sdkId": "License Manager Linux Subscriptions",
            "arnNamespace": "license-manager-linux-subscriptions",
            "cloudTrailEventSource": "license-manager-linux-subscriptions.amazonaws.com"
        },
        "aws.auth#sigv4": {
            "name": "license-manager-linux-subscriptions"
        },
        "aws.protocols#restJson1": {},
        "smithy.api#cors": {
            "additionalAllowedHeaders": [
                "*",
                "content-type",
                "x-amz-content-sha256",
                "x-amz-user-agent",
                "x-amzn-platform-id",
                "x-amzn-trace-id",
                "content-length",
                "x-api-key",
                "authorization",
                "x-amz-date",
```

```
 "x-amz-security-token",
                    "Access-Control-Allow-Headers",
                    "Access-Control-Allow-Methods",
                    "Access-Control-Allow-Origin"
                ],
                "additionalExposedHeaders": [
                    "x-amzn-errortype",
                    "x-amzn-requestid",
                    "x-amzn-trace-id"
                ]
            },
            "smithy.api#documentation": "<p>With License Manager, you can discover and track your commercial Linux subscriptions on running\n      Amazon EC2 instances.</p>",
            "smithy.api#title": "AWS License Manager Linux Subscriptions",
            "smithy.rules#endpointRuleSet": {
                "version": "1.0",
                "parameters": {
                    "Region": {
                        "builtIn": "AWS::Region",
                        "required": false,
                        "documentation": "The
 AWS region used to dispatch the request.",
                        "type": "String"
                    },
                    "UseDualStack": {
                        "builtIn": "AWS::UseDualStack",
                        "required": true,
                        "default": false,
                        "documentation": "When true, use the dual-stack endpoint. If the configured endpoint does not support dual-stack, dispatching the request MAY return an error.",
                        "type": "Boolean"
                    },
                    "UseFIPS": {
                        "builtIn": "AWS::UseFIPS",
                        "required": true,
                        "default": false,
                        "documentation": "When true, send this request to the FIPS-compliant regional endpoint. If the configured endpoint does not have a FIPS compliant endpoint, dispatching the request will return an error.",

                     "type": "Boolean"
                    },
                    "Endpoint": {
                        "builtIn": "SDK::Endpoint",
                        "required": false,
                        "documentation": "Override the endpoint used to send this request",
                        "type": "String"
                    }
                },
```

```
"rules": [
  {
    "conditions": [
      {
        "fn": "isSet",
        "argv": [
          {
            "ref": "Endpoint"
          }
        ]
      }
    ],
    "type": "tree",
    "rules": [
      {

      "conditions": [
            {
              "fn": "booleanEquals",
              "argv": [
                {
                  "ref": "UseFIPS"
                },
                true
              ]
            }
          ],
          "error": "Invalid Configuration: FIPS and custom endpoint are not supported",
          "type": "error"
        },
        {
          "conditions": [],
          "type": "tree",
          "rules": [
            {

           "conditions": [
                  {
                    "fn": "booleanEquals",
                    "argv": [
                      {
                        "ref": "UseDualStack"
                      },
                      true
                    ]
                  }
                ],
                "error": "Invalid Configuration: Dualstack and custom endpoint are not supported",
```

```
                        "type": "error"
                    },
                    {
                        "conditions": [],

                "endpoint": {
                            "url": {
                                "ref": "Endpoint"
                            },
                            "properties": {},
                            "headers": {}
                        },
                        "type": "endpoint"
                    }
                ]
            }
        ]
    },
    {
        "conditions": [],
        "type": "tree",
        "rules": [
            {
                "conditions": [
                    {
                        "fn": "isSet",

    "argv": [
                            {
                                "ref": "Region"
                            }
                        ]
                    }
                ],
                "type": "tree",
                "rules": [
                    {
                        "conditions": [
                            {
                                "fn": "aws.partition",
                                "argv": [
                                    {
                                        "ref": "Region"
                                    }
                                ],

"assign": "PartitionResult"
                            }
```

```
                ],
                "type": "tree",
                "rules": [
                  {
                    "conditions": [
                      {
                        "fn": "booleanEquals",
                        "argv": [
                          {
                            "ref": "UseFIPS"
                          },
                          true
                        ]
                      },

{
                        "fn": "booleanEquals",
                        "argv": [
                          {
                            "ref": "UseDualStack"
                          },
                          true
                        ]
                      }
                    ],
                    "type": "tree",
                    "rules": [
                      {
                        "conditions": [
                          {

                       "fn": "booleanEquals",
                            "argv": [
                              true,
                              {
                                "fn": "getAttr",
                                "argv": [
                                  {
                                    "ref": "PartitionResult"
                                  },
                                  "supportsFIPS"
                                ]

}
                              ]
                            },
                            {
                              "fn": "booleanEquals",
```

```
                "argv": [
                  true,
                  {
                    "fn": "getAttr",
                    "argv": [
                      {
                        "ref": "PartitionResult"
                      },

                   "supportsDualStack"
                      ]
                    }
                  ]
                }
              ],
              "type": "tree",
              "rules": [
                {
                  "conditions": [],
                  "type": "tree",
                  "rules": [
                    {

            "conditions": [],
                      "endpoint": {
                        "url": "https://license-manager-linux-subscriptions-
fips.{Region}.{PartitionResult#dualStackDnsSuffix}",
                        "properties": {},
                        "headers": {}
                      },
                      "type": "endpoint"
                    }
                  ]
                }
              ]

          },
            {
              "conditions": [],
              "error": "FIPS and DualStack are enabled, but this partition does not support
one or both",
              "type": "error"
            }
          ]
        },
        {
          "conditions": [
            {
```

```
                "fn": "booleanEquals",
                "argv": [
                  {

            "ref": "UseFIPS"
                  },
                  true
                ]
              }
            ],
            "type": "tree",
            "rules": [
              {
                "conditions": [
                  {
                    "fn": "booleanEquals",
                    "argv": [
                      true,

    {
                        "fn": "getAttr",
                        "argv": [
                          {
                            "ref": "PartitionResult"
                          },
                          "supportsFIPS"
                        ]
                      }
                    ]
                  }
                ],
                "type": "tree",

              "rules": [
                  {
                    "conditions": [],
                    "type": "tree",
                    "rules": [
                      {
                        "conditions": [],
                        "endpoint": {
                          "url": "https://license-manager-linux-subscriptions-
fips.{Region}.{PartitionResult#dnsSuffix}",
                          "properties": {},
                          "headers": {}

                        },
                        "type": "endpoint"
```

```
                        }
                    ]
                }
            ]
        },
        {
            "conditions": [],
            "error": "FIPS is enabled but this partition does not support FIPS",
            "type": "error"
        }
    ]

},
                {
    "conditions": [
        {
            "fn": "booleanEquals",
            "argv": [
                {
                    "ref": "UseDualStack"
                },
                true
            ]
        }
    ],
    "type": "tree",
    "rules": [
        {

     "conditions": [
                {
                    "fn": "booleanEquals",
                    "argv": [
                        true,
                        {
                            "fn": "getAttr",
                            "argv": [
                                {
                                    "ref": "PartitionResult"
                                },
                                "supportsDualStack"
                            ]
                        }
                    ]
                }
            ],
            "type": "tree",
            "rules": [
```

```
                                        {
                                            "conditions": [],
                                            "type": "tree",
                                            "rules": [
                                                {
                                                    "conditions": [],

                                                "endpoint": {
                                                        "url": "https://license-manager-linux-
subscriptions.{Region}.{PartitionResult#dualStackDnsSuffix}",
                                                        "properties": {},
                                                        "headers": {}
                                                    },
                                                    "type": "endpoint"
                                                }
                                            ]
                                        }
                                    ]
                                },

        {
                                        "conditions": [],
                                        "error": "DualStack is enabled but this partition does not support DualStack",
                                        "type": "error"
                                    }
                                ]
                            },
                            {
                                "conditions": [],
                                "type": "tree",
                                "rules": [
                                    {
                                        "conditions": [],
                                        "endpoint": {
                                            "url":
 "https://license-manager-linux-subscriptions.{Region}.{PartitionResult#dnsSuffix}",
                                            "properties": {},
                                            "headers": {}
                                        },
                                        "type": "endpoint"
                                    }
                                ]
                            }
                        ]
                    }
                ]
            },
            {
```

```
                "conditions": [],
                "error": "Invalid Configuration: Missing Region",
                "type": "error"
              }
            ]
          }
        ]
      },
      "smithy.rules#endpointTests": {
        "testCases": [
          {
            "documentation": "For region us-east-1 with FIPS enabled and DualStack enabled",
            "expect": {
              "endpoint": {
                "url": "https://license-manager-linux-subscriptions-fips.us-east-1.api.aws"
              }
            },
            "params": {
              "Region": "us-east-1",
              "UseFIPS": true,
              "UseDualStack": true
            }
          },
          {
            "documentation": "For region us-east-1 with FIPS enabled and DualStack disabled",
            "expect": {

"endpoint": {
                "url": "https://license-manager-linux-subscriptions-fips.us-east-1.amazonaws.com"
              }
            },
            "params": {
              "Region": "us-east-1",
              "UseFIPS": true,
              "UseDualStack": false
            }
          },
          {
            "documentation": "For region us-east-1 with FIPS disabled and DualStack enabled",
            "expect": {
              "endpoint": {
                "url": "https://license-manager-linux-subscriptions.us-east-1.api.aws"
              }
            },
            "params": {
              "Region": "us-east-1",
              "UseFIPS": false,
```

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        "UseDualStack": true
      }
    },
    {
      "documentation": "For region us-east-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-linux-subscriptions.us-east-1.amazonaws.com"
        }
      },
      "params": {
        "Region": "us-east-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region cn-north-1 with FIPS enabled and DualStack enabled",
      "expect": {
        "endpoint": {

      "url": "https://license-manager-linux-subscriptions-fips.cn-north-1.api.amazonwebservices.com.cn"
        }
      },
      "params": {
        "Region": "cn-north-1",
        "UseFIPS": true,
        "UseDualStack": true
      }
    },
    {
      "documentation": "For region cn-north-1 with FIPS enabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-linux-subscriptions-fips.cn-north-1.amazonaws.com.cn"
        }
      },
      "params": {
        "Region": "cn-north-1",
        "UseFIPS": true,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region cn-north-1 with FIPS disabled and DualStack enabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-linux-subscriptions.cn-north-1.api.amazonwebservices.com.cn"
```

```
            }
          },
          "params": {
            "Region": "cn-north-1",
            "UseFIPS": false,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region cn-north-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint":
{
              "url": "https://license-manager-linux-subscriptions.cn-north-1.amazonaws.com.cn"
            }
          },
          "params": {
            "Region": "cn-north-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack enabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-linux-subscriptions-fips.us-gov-east-1.api.aws"
            }
          },
          "params": {
            "Region": "us-gov-east-1",
            "UseFIPS": true,
             "UseDualStack": true
          }
        },
        {
          "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-linux-subscriptions-fips.us-gov-east-1.amazonaws.com"
            }
          },
          "params": {
            "Region": "us-gov-east-1",
            "UseFIPS": true,
            "UseDualStack": false
          }
        },
```

```
                {
                  "documentation": "For region us-gov-east-1 with FIPS disabled and DualStack enabled",
                  "expect": {
                    "endpoint":
{
                      "url": "https://license-manager-linux-subscriptions.us-gov-east-1.api.aws"
                    }
                  },
                  "params": {
                    "Region": "us-gov-east-1",
                    "UseFIPS": false,
                    "UseDualStack": true
                  }
                },
                {
                  "documentation": "For region us-gov-east-1 with FIPS disabled and DualStack disabled",
                  "expect": {
                    "endpoint": {
                      "url": "https://license-manager-linux-subscriptions.us-gov-east-1.amazonaws.com"
                    }
                  },
                  "params": {
                    "Region": "us-gov-east-1",
                    "UseFIPS": false,
                     "UseDualStack": false
                  }
                },
                {
                  "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack enabled",
                  "expect": {
                    "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
                  },
                  "params": {
                    "Region": "us-iso-east-1",
                    "UseFIPS": true,
                    "UseDualStack": true
                  }
                },
                {
                  "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack disabled",
                  "expect": {
                    "endpoint": {
                      "url": "https://license-manager-linux-subscriptions-fips.us-iso-east-1.c2s.ic.gov"
                     }
                  },
                  "params": {
                    "Region": "us-iso-east-1",
                    "UseFIPS": true,
```

```
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack enabled",
          "expect": {
            "error": "DualStack is enabled but this partition does not support DualStack"
          },
          "params": {
            "Region": "us-iso-east-1",
            "UseFIPS": false,
            "UseDualStack": true
          }
        },
        {

"documentation": "For region us-iso-east-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-linux-subscriptions.us-iso-east-1.c2s.ic.gov"
            }
          },
          "params": {
            "Region": "us-iso-east-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack enabled",
          "expect": {
            "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
          },
          "params": {

         "Region": "us-isob-east-1",
            "UseFIPS": true,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-linux-subscriptions-fips.us-isob-east-1.sc2s.sgov.gov"
            }
          },
          "params": {
```

```
                "Region": "us-isob-east-1",
                "UseFIPS": true,
                "UseDualStack": false
            }
        },
        {
            "documentation": "For region us-isob-east-1 with FIPS disabled
and DualStack enabled",
            "expect": {
                "error": "DualStack is enabled but this partition does not support DualStack"
            },
            "params": {
                "Region": "us-isob-east-1",
                "UseFIPS": false,
                "UseDualStack": true
            }
        },
        {
            "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack disabled",
            "expect": {
                "endpoint": {
                    "url": "https://license-manager-linux-subscriptions.us-isob-east-1.sc2s.sgov.gov"
                }
            },
            "params": {
                "Region": "us-isob-east-1",

        "UseFIPS": false,
                "UseDualStack": false
            }
        },
        {
            "documentation": "For custom endpoint with region set and fips disabled and dualstack disabled",
            "expect": {
                "endpoint": {
                    "url": "https://example.com"
                }
            },
            "params": {
                "Region": "us-east-1",
                "UseFIPS": false,
                "UseDualStack": false,
                "Endpoint": "https://example.com"
            }
        },
        {
            "documentation": "For custom endpoint with region not set and fips disabled and dualstack
disabled",
```

```
  "expect": {
                "endpoint": {
                   "url": "https://example.com"
                }
            },
            "params": {
               "UseFIPS": false,
               "UseDualStack": false,
               "Endpoint": "https://example.com"
            }
         },
         {
            "documentation": "For custom endpoint with fips enabled and dualstack disabled",
            "expect": {
               "error": "Invalid Configuration: FIPS and custom endpoint are not supported"
            },
            "params": {
               "Region": "us-east-1",
               "UseFIPS": true,
               "UseDualStack": false,

    "Endpoint": "https://example.com"
            }
         },
         {
            "documentation": "For custom endpoint with fips disabled and dualstack enabled",
            "expect": {
               "error": "Invalid Configuration: Dualstack and custom endpoint are not supported"
            },
            "params": {
               "Region": "us-east-1",
               "UseFIPS": false,
               "UseDualStack": true,
               "Endpoint": "https://example.com"
            }
         },
         {
            "documentation": "Missing region",
            "expect": {
               "error": "Invalid Configuration: Missing Region"
            }

  }
      ],
      "version": "1.0"
    }
}
```

```
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscovery": {
      "type": "string",
      "traits": {
        "smithy.api#enum": [
          {
            "name": "Enabled",
            "value": "Enabled",
            "documentation": "Enabled LinuxSubscriptionsDiscovery"
          },
          {
            "name": "Disabled",
            "value": "Disabled",
            "documentation": "Disabled LinuxSubscriptionsDiscovery"
          }
        ]
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscoverySettings": {
      "type": "structure",
      "members": {
        "SourceRegions": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringList",
           "traits": {
            "smithy.api#documentation": "<p>The Regions in which to discover data for Linux
subscriptions.</p>",
            "smithy.api#required": {}
          }
        },
        "OrganizationIntegration": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#OrganizationIntegration",
          "traits": {
            "smithy.api#documentation": "<p>Details if you have enabled resource discovery across your
accounts in Organizations.</p>",
            "smithy.api#required": {}
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>Lists the settings defined for discovering Linux subscriptions.</p>"
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstances": {
      "type":
 "operation",
      "input": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstancesRequest"
      },
```

```
        "output": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstancesResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
            },
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
            },
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists the running Amazon EC2 instances that were discovered with
commercial Linux\n      subscriptions.</p>",
            "smithy.api#http": {

       "code": 200,
                "method": "POST",
                "uri": "/subscription/ListLinuxSubscriptionInstances"
            },
            "smithy.api#idempotent": {},
            "smithy.api#paginated": {
                "inputToken": "NextToken",
                "outputToken": "NextToken",
                "pageSize": "MaxResults",
                "items": "Instances"
            }
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstancesRequest": {
        "type": "structure",
        "members": {
            "Filters": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#FilterList",
                "traits": {
                    "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those
that match one or\n      more sets of key-value pairs that you specify. For example, you can filter by
 the name of\n      <code>AmiID</code> with an optional operator to see subscriptions that match, partially\n
match, or don't match a certain Amazon Machine Image (AMI) ID.</p>\n      <p>The valid names for this filter
are:</p>\n      <ul>\n      <li>\n      <p>\n      <code>AmiID</code>\n      </p>\n
</li>\n      <li>\n      <p>\n      <code>InstanceID</code>\n      </p>\n      </li>\n
<li>\n      <p>\n      <code>AccountID</code>\n      </p>\n      </li>\n      <li>\n
<p>\n      <code>Status</code>\n      </p>\n      </li>\n      <li>\n      <p>\n
<code>Region</code>\n      </p>\n      </li>\n      <li>\n      <p>\n
<code>UsageOperation</code>\n      </p>\n      </li>\n      <li>\n
```

\n <code>ProductCode</code>\n \n \n \n \n <code>InstanceType</code>\n \n \n \n The valid Operators for this filter are: \n \n \n \n <code>contains</code>\n \n \n \n \n <code>equals</code>\n \n \n \n \n <code>Notequal</code>\n \n \n "
}
},
"MaxResults": {
"target": "com.amazonaws.licensemanagerlinuxsubscriptions#BoxInteger",
"traits": {
"smithy.api#documentation": " Maximum number of results to return in a single call. "

}
},
"NextToken": {
"target": "smithy.api#String",
"traits": {
"smithy.api#documentation": " Token for the next set of results. ",
"smithy.api#length": {
"min": 1,
"max": 16384
}
}
}
},
"traits": {
"smithy.api#documentation": "NextToken length limit is half of ddb accepted limit.\nIncrease this limit if parameters in request increases."
}
},
"com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstancesResponse": {
"type": "structure",
"members": {
"Instances": {
"target": "com.amazonaws.licensemanagerlinuxsubscriptions#InstanceList",
"traits": {
"smithy.api#documentation":
" An array that contains instance objects. "
}
},
"NextToken": {
"target": "smithy.api#String",
"traits": {
"smithy.api#documentation": " Token for the next set of results. "
}
}
}
},

```
    "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptions": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionsRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionsResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
        },
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
        },
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Lists the Linux subscriptions that have been discovered. If you have linked your\n      organization, the returned results will include data aggregated across your accounts in\n Organizations.</p>",
        "smithy.api#http": {
          "code": 200,
          "method": "POST",
          "uri": "/subscription/ListLinuxSubscriptions"
        },
        "smithy.api#idempotent": {},
        "smithy.api#paginated": {
          "inputToken": "NextToken",
          "outputToken": "NextToken",
          "pageSize": "MaxResults",
          "items": "Subscriptions"
        }

      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionsRequest": {
      "type": "structure",
      "members": {
        "Filters": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#FilterList",
          "traits": {
            "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those that match one or\n      more sets of key-value pairs that you specify. For example, you can filter by the name of\n <code>Subscription</code> with an optional operator to see subscriptions that match,\n      partially match, or don't match a certain subscription's name.</p>\n        <p>The valid names for this filter are:</p>\n        <ul>\n
```

\n \n <code>Subscription</code>\n \n \n \n
The valid Operators for this filter are: \n
\n \n \n <code>contains</code>\n \n \n
\n \n <code>equals</code>\n \n \n \n \n
<code>Notequal</code>\n \n \n "
}
},
"MaxResults": {
"target": "com.amazonaws.licensemanagerlinuxsubscriptions#BoxInteger",
"traits": {
"smithy.api#documentation": " Maximum number of results to return in a single call. "
}
},
"NextToken": {
"target": "smithy.api#String",
"traits": {
"smithy.api#documentation": " Token for the next set of results. ",
"smithy.api#length": {

"min": 1,
"max": 16384
}
}
}
},
"traits": {
"smithy.api#documentation": "NextToken length limit is half of ddb accepted limit.\nIncrease this limit if parameters in request increases."
}
},
"com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionsResponse": {
"type": "structure",
"members": {
"Subscriptions": {
"target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionList",
"traits": {
"smithy.api#documentation": " An array that contains subscription objects. "
}
},
"NextToken": {
"target": "smithy.api#String",
"traits": {
"smithy.api#documentation": " Token for
the next set of results. "
}
}
}
},

```
    "com.amazonaws.licensemanagerlinuxsubscriptions#Operator": {
      "type": "string",
      "traits": {
        "smithy.api#enum": [
          {
            "name": "EQUAL",
            "value": "Equal",
            "documentation": "Equal operator"
          },
          {
            "name": "NOT_EQUAL",
            "value": "NotEqual",
            "documentation": "Not equal operator"
          },
          {
            "name": "CONTAINS",
            "value": "Contains",
            "documentation": "Contains operator"
          }
        ],
        "smithy.api#length": {
          "min": 1,
          "max": 20
        }
      }
    },

  "com.amazonaws.licensemanagerlinuxsubscriptions#OrganizationIntegration": {
      "type": "string",
      "traits": {
        "smithy.api#enum": [
          {
            "name": "Enabled",
            "value": "Enabled",
            "documentation": "Enabled OrganizationIntegration"
          },
          {
            "name": "Disabled",
            "value": "Disabled",
            "documentation": "Disabled OrganizationIntegration"
          }
        ]
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ProductCodeList": {
      "type": "list",
      "member": {
        "target": "smithy.api#String"
```

```
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#Status": {
        "type": "string",
        "traits": {
          "smithy.api#enum": [

       {
                "name": "InProgress",
                "value": "InProgress",
                "documentation": "InProgress status"
              },
              {
                "name": "Completed",
                "value": "Completed",
                "documentation": "Completed status"
              },
              {
                "name": "Successful",
                "value": "Successful",
                "documentation": "Successful status"
              },
              {
                "name": "Failed",
                "value": "Failed",
                "documentation": "Failed status"
              }
            ]
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#StringList": {
        "type": "list",
        "member": {
          "target": "smithy.api#String",
          "traits":
    {
              "smithy.api#length": {
                "min": 1,
                "max": 100
              }
            }
        },
        "traits": {
          "smithy.api#length": {
            "min": 1,
            "max": 100
          },
          "smithy.api#uniqueItems": {}
```

```
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#StringMap": {
        "type": "map",
        "key": {
            "target": "smithy.api#String"
        },
        "value": {
            "target": "smithy.api#String"
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#Subscription": {
        "type": "structure",
        "members": {
            "Name": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The name of the subscription.</p>"

        }
            },
            "Type": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The type of subscription. The type can be subscription-included with Amazon EC2, Bring Your Own\n      Subscription model (BYOS), or from the Amazon Web Services Marketplace. Certain subscriptions may use licensing from the\n      Amazon Web Services Marketplace as well as OS licensing from Amazon EC2 or BYOS.</p>"
                }
            },
            "InstanceCount": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#BoxLong",
                "traits": {
                    "smithy.api#documentation": "<p>The total amount of running instances using this subscription.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>An object which details a discovered Linux subscription.</p>"
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionList": {
        "type": "list",
        "member": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Subscription"
        }
    },
```

```
    "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException": {
      "type": "structure",
      "members": {
        "message": {
          "target": "smithy.api#String"
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>The request was denied due to request throttling.</p>",
        "smithy.api#error": "client"
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettings": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettingsRequest"
      },

    "output": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettingsResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
        },
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
        },
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Updates the service settings for Linux subscriptions.</p>",
        "smithy.api#http": {
          "code": 200,
          "method": "POST",
          "uri": "/subscription/UpdateServiceSettings"
        },
        "smithy.api#idempotent": {}
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettingsRequest":
{
      "type": "structure",
      "members": {
        "LinuxSubscriptionsDiscovery": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscovery",
```

```
            "traits": {
              "smithy.api#documentation": "<p>Describes if the discovery of Linux subscriptions is enabled.</p>",
              "smithy.api#required": {}
            }
          },
          "LinuxSubscriptionsDiscoverySettings": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscoverySettings",
            "traits": {
              "smithy.api#documentation": "<p>The settings defined for Linux subscriptions discovery. The
settings include if Organizations\n      integration has been enabled, and which Regions data will be aggregated
from.</p>",

  "smithy.api#required": {}
            }
          },
          "AllowUpdate": {
            "target": "smithy.api#Boolean",
            "traits": {
              "smithy.api#documentation": "<p>Describes if updates are allowed to the service settings for Linux
subscriptions. If you\n      allow updates, you can aggregate Linux subscription data in more than one home
Region.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettingsResponse": {
        "type": "structure",
        "members": {
          "LinuxSubscriptionsDiscovery": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscovery",
            "traits": {
              "smithy.api#documentation": "<p>Lists if discovery has been enabled for Linux subscriptions.</p>"
            }
          },

         "LinuxSubscriptionsDiscoverySettings": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscoverySettings",
            "traits": {
              "smithy.api#documentation": "<p>The settings defined for Linux subscriptions discovery. The
settings include if Organizations\n      integration has been enabled, and which Regions data will be aggregated
from.</p>"
            }
          },
          "Status": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Status",
            "traits": {
              "smithy.api#documentation": "<p>Indicates the status of Linux subscriptions settings being
applied.</p>"
```

```
                }
            },
            "StatusMessage": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringMap",
                "traits": {
                    "smithy.api#documentation":
 "<p>A message which details the Linux subscriptions service settings current status.</p>"
                }
            },
            "HomeRegions": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringList",
                "traits": {
                    "smithy.api#documentation": "<p>The Region in which License Manager displays the aggregated
data for Linux\n      subscriptions.</p>"
                }
            }
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException": {
        "type": "structure",
        "members": {
            "message": {
                "target": "smithy.api#String"
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>The provided input is not valid. Try your request again.</p>",
            "smithy.api#error": "client"
        }
    }
  }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Checks out the specified license.
//
// If the account that created the license is the same that is performing the
```

```
// check out, you must specify the account as the beneficiary.
func (c *Client) CheckoutLicense(ctx context.Context, params *CheckoutLicenseInput, optFns ...func(*Options))
(*CheckoutLicenseOutput, error) {
 if params == nil {
  params = &CheckoutLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "CheckoutLicense", params, optFns,
c.addOperationCheckoutLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*CheckoutLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type CheckoutLicenseInput struct {

 //
 Checkout type.
 //
 // This member is required.
 CheckoutType types.CheckoutType

 // Unique, case-sensitive identifier that you provide to ensure the idempotency of
 // the request.
 //
 // This member is required.
 ClientToken *string

 // License entitlements.
 //
 // This member is required.
 Entitlements []types.EntitlementData

 // Key fingerprint identifying the license.
 //
 // This member is required.
 KeyFingerprint *string

 // Product SKU.
 //
 // This member is required.
 ProductSKU *string

 // License beneficiary.
```

```
 Beneficiary *string

 // Node ID.
 NodeId *string

 noSmithyDocumentSerde
}

type CheckoutLicenseOutput struct {

 // Checkout type.
 CheckoutType types.CheckoutType

 // Allowed license entitlements.
 EntitlementsAllowed []types.EntitlementData

 // Date and time at which the license checkout expires.
 Expiration *string

 // Date and time at which the license checkout is issued.
 IssuedAt *string

 // Amazon Resource Name (ARN) of the checkout license.
 LicenseArn
 *string

 // License consumption token.
 LicenseConsumptionToken *string

 // Node ID.
 NodeId *string

 // Signed token.
 SignedToken *string

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationCheckoutLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpCheckoutLicense{}, middleware.After)
 if err != nil {
  return err
```

```
}
err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpCheckoutLicense{}, middleware.After)
if err != nil {
 return err
}
if err := addProtocolFinalizerMiddlewares(stack, options, "CheckoutLicense"); err != nil {
 return fmt.Errorf("add protocol finalizers: %v", err)
}

if err = addlegacyEndpointContextSetter(stack, options); err != nil {
 return err
}
if err = addSetLoggerMiddleware(stack,
options); err != nil {
 return err
}
if err = addClientRequestID(stack); err != nil {
 return err
}
if err = addComputeContentLength(stack); err != nil {
 return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
 return err
}
if err = addComputePayloadSHA256(stack); err != nil {
 return err
}
if err = addRetry(stack, options); err != nil {
 return err
}
if err = addRawResponseToMetadata(stack); err != nil {
 return err
}
if err = addRecordResponseTiming(stack); err != nil {
 return err
}
if err = addClientUserAgent(stack, options); err != nil {
 return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
 return err
```

```
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
  return err
 }
 if err = addUserAgentRetryMode(stack,
 options); err != nil {
  return err
 }
 if err = addOpCheckoutLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opCheckoutLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opCheckoutLicense(region string) *awsmiddleware.RegisterServiceMetadata
{
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName: "CheckoutLicense",
 }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
```

```
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Creates a license.
func (c *Client) CreateLicense(ctx context.Context, params *CreateLicenseInput, optFns ...func(*Options))
(*CreateLicenseOutput, error) {
 if params == nil {
  params = &CreateLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "CreateLicense", params, optFns,
c.addOperationCreateLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*CreateLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type CreateLicenseInput struct {

 // License beneficiary.
 //
 // This member is required.
 Beneficiary *string

 // Unique, case-sensitive identifier that you provide to ensure the idempotency of
 // the request.
 //
 //
 This member is required.
 ClientToken *string

 // Configuration for consumption of the license. Choose a provisional
 // configuration for workloads running with continuous connectivity. Choose a
 // borrow configuration for workloads with offline usage.
 //
 // This member is required.
 ConsumptionConfiguration *types.ConsumptionConfiguration

 // License entitlements.
 //
 // This member is required.
```

```
 Entitlements []types.Entitlement

 // Home Region for the license.
 //
 // This member is required.
 HomeRegion *string

 // License issuer.
 //
 // This member is required.
 Issuer *types.Issuer

 // License name.
 //
 // This member is required.
 LicenseName *string

 // Product name.
 //
 // This member is required.
 ProductName *string

 // Product SKU.
 //
 // This member is required.
 ProductSKU *string

 // Date and time range during which the license is valid, in ISO8601-UTC format.
 //
 // This member is required.
 Validity *types.DatetimeRange

 // Information about
 the license.
 LicenseMetadata []types.Metadata

 noSmithyDocumentSerde
}

type CreateLicenseOutput struct {

 // Amazon Resource Name (ARN) of the license.
 LicenseArn *string

 // License status.
 Status types.LicenseStatus

 // License version.
```

```
 Version *string

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationCreateLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpCreateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpCreateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "CreateLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if
 err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
```

```
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return
 err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
  return err
 }
 if err = addUserAgentRetryMode(stack, options); err != nil {
  return err
 }
 if err = addOpCreateLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opCreateLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}
```

```
func newServiceMetadataMiddleware_opCreateLicense(region string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName:
 "CreateLicense",
 }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package grafana

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/grafana/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Removes the Grafana Enterprise license from a workspace.
func (c *Client) DisassociateLicense(ctx context.Context, params *DisassociateLicenseInput, optFns
...func(*Options)) (*DisassociateLicenseOutput, error) {
 if params == nil {
  params = &DisassociateLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "DisassociateLicense", params, optFns,
c.addOperationDisassociateLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*DisassociateLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type DisassociateLicenseInput struct {

 // The type of license to remove from the workspace.
 //
 // This member is required.
 LicenseType types.LicenseType

 //
```

```
 The ID of the workspace to remove the Grafana Enterprise license from.
 //
 // This member is required.
 WorkspaceId *string

 noSmithyDocumentSerde
}

type DisassociateLicenseOutput struct {

 // A structure containing information about the workspace.
 //
 // This member is required.
 Workspace *types.WorkspaceDescription

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationDisassociateLicenseMiddlewares(stack *middleware.Stack, options Options) (err
error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsRestjson1_serializeOpDisassociateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsRestjson1_deserializeOpDisassociateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "DisassociateLicense");
 err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
```

```
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil
 {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
  return err
 }
 if err = addUserAgentRetryMode(stack, options); err != nil {
  return err
 }
 if err = addOpDisassociateLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opDisassociateLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
```

```
 return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
 return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
 return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
 return err
 }
 return nil
}

func newServiceMetadataMiddleware_opDisassociateLicense(region string)
*awsmiddleware.RegisterServiceMetadata
 {
 return &awsmiddleware.RegisterServiceMetadata{
 Region:       region,
 ServiceID:    ServiceID,
 OperationName: "DisassociateLicense",
 }
}
CheckoutLicense
 Initialize stack step
 RegisterServiceMetadata
 legacyEndpointContextSetter
 SetLogger
 OperationInputValidation
 Serialize stack step
 setOperationInput
 ResolveEndpoint
 OperationSerializer
 Build stack step
 ClientRequestID
 ComputeContentLength
 UserAgent
 AddTimeOffsetMiddleware
 RecursionDetection
 Finalize stack step
 ResolveAuthScheme
 GetIdentity
 ResolveEndpointV2
 disableHTTPS
 ComputePayloadHash
 Retry
 RetryMetricsHeader
 setLegacyContextSigningOptions
```

Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
AddTimeOffsetMiddleware
RecordResponseTiming
RequestResponseLogger
DisassociateLicense
Initialize stack step
RegisterServiceMetadata
legacyEndpointContextSetter
SetLogger
OperationInputValidation
Serialize stack step
setOperationInput
ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
UserAgent
AddTimeOffsetMiddleware
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
AddTimeOffsetMiddleware
RecordResponseTiming
RequestResponseLogger

CheckoutBorrowLicense
Initialize stack step
RegisterServiceMetadata
legacyEndpointContextSetter
SetLogger
OperationInputValidation
Serialize stack step
setOperationInput
ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
UserAgent
AddTimeOffsetMiddleware
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
AddTimeOffsetMiddleware
RecordResponseTiming
RequestResponseLogger
AssociateLicense
Initialize stack step
RegisterServiceMetadata
legacyEndpointContextSetter
SetLogger
OperationInputValidation
Serialize stack step
setOperationInput
ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID

```
 ComputeContentLength
 UserAgent
 AddTimeOffsetMiddleware
 RecursionDetection
Finalize stack step
 ResolveAuthScheme
 GetIdentity
 ResolveEndpointV2
 disableHTTPS
 ComputePayloadHash
 Retry
 RetryMetricsHeader
 setLegacyContextSigningOptions
 Signing
Deserialize stack step
 AddRawResponseToMetadata
 ErrorCloseResponseBody
 CloseResponseBody
 ResponseErrorWrapper
 RequestIDRetriever
 OperationDeserializer
 AddTimeOffsetMiddleware
 RecordResponseTiming
 RequestResponseLogger
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Lists received licenses.
func (c *Client) ListReceivedLicenses(ctx context.Context, params *ListReceivedLicensesInput, optFns
...func(*Options)) (*ListReceivedLicensesOutput, error) {
 if params == nil {
  params = &ListReceivedLicensesInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "ListReceivedLicenses", params, optFns,
c.addOperationListReceivedLicensesMiddlewares)
 if err != nil {
  return nil, err
```

```
 }

 out := result.(*ListReceivedLicensesOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type ListReceivedLicensesInput struct {

 // Filters to scope the results. The following filters are supported:
 //
 //   - ProductSKU
 //
 //   - Status
 //
 //
   - Fingerprint
 //
 //   - IssuerName
 //
 //   - Beneficiary
 Filters []types.Filter

 // Amazon Resource Names (ARNs) of the licenses.
 LicenseArns []string

 // Maximum number of results to return in a single call.
 MaxResults *int32

 // Token for the next set of results.
 NextToken *string

 noSmithyDocumentSerde
}

type ListReceivedLicensesOutput struct {

 // Received license details.
 Licenses []types.GrantedLicense

 // Token for the next set of results.
 NextToken *string

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}
```

```
func (c *Client) addOperationListReceivedLicensesMiddlewares(stack *middleware.Stack, options Options) (err
error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpListReceivedLicenses{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpListReceivedLicenses{},
 middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "ListReceivedLicenses"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
```

```
 }
 if err
 = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
  return err
 }
 if err = addUserAgentRetryMode(stack, options); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opListReceivedLicenses(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opListReceivedLicenses(region
 string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName: "ListReceivedLicenses",
 }
}
```

```
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Gets detailed information about the specified license.
func (c *Client) GetLicense(ctx context.Context, params *GetLicenseInput, optFns ...func(*Options))
(*GetLicenseOutput, error) {
 if params == nil {
  params = &GetLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "GetLicense", params, optFns,
c.addOperationGetLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*GetLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type GetLicenseInput struct {

 // Amazon Resource Name (ARN) of the license.
 //
 // This member is required.
 LicenseArn *string

 // License version.
 Version *string

 noSmithyDocumentSerde
}

type
 GetLicenseOutput struct {

 // License details.
```

```
License *types.License

// Metadata pertaining to the operation's result.
ResultMetadata middleware.Metadata

noSmithyDocumentSerde
}

func (c *Client) addOperationGetLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpGetLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpGetLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "GetLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err
 != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
```

```
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
  return err
 }
 if err = addUserAgentRetryMode(stack, options); err != nil {
  return err
 }
 if err = addOpGetLicenseValidationMiddleware(stack);
 err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opGetLicense(options.Region), middleware.Before);
err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}
```

```
func newServiceMetadataMiddleware_opGetLicense(region string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName: "GetLicense",
 }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package grafana

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/grafana/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Assigns a Grafana Enterprise license to a workspace. To upgrade, you must use
// ENTERPRISE for the licenseType , and pass in a valid Grafana Labs token for the
// grafanaToken . Upgrading to Grafana Enterprise incurs additional fees. For more
// information, see [Upgrade a workspace to Grafana Enterprise].
//
// [Upgrade a workspace to Grafana Enterprise]: https://docs.aws.amazon.com/grafana/latest/userguide/upgrade-to-
Grafana-Enterprise.html
func (c *Client) AssociateLicense(ctx context.Context, params *AssociateLicenseInput, optFns ...func(*Options))
(*AssociateLicenseOutput, error) {
 if params == nil {
  params = &AssociateLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx,
 "AssociateLicense", params, optFns, c.addOperationAssociateLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*AssociateLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type AssociateLicenseInput struct {

 // The type of license to associate with the workspace.
 //
```

```
 // Amazon Managed Grafana workspaces no longer support Grafana Enterprise free
 // trials.
 //
 // This member is required.
 LicenseType types.LicenseType

 // The ID of the workspace to associate the license with.
 //
 // This member is required.
 WorkspaceId *string

 // A token from Grafana Labs that ties your Amazon Web Services account with a
 // Grafana Labs account. For more information, see [Link your account with Grafana Labs].
 //
 // [Link your account with Grafana Labs]: https://docs.aws.amazon.com/grafana/latest/userguide/upgrade-to-
Grafana-Enterprise.html#AMG-workspace-register-enterprise
 GrafanaToken *string

 noSmithyDocumentSerde
}

type AssociateLicenseOutput
 struct {

 // A structure containing data about the workspace.
 //
 // This member is required.
 Workspace *types.WorkspaceDescription

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationAssociateLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsRestjson1_serializeOpAssociateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsRestjson1_deserializeOpAssociateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "AssociateLicense"); err != nil {
```

```
 return fmt.Errorf("add protocol finalizers: %v", err)
}

if err = addlegacyEndpointContextSetter(stack, options); err != nil {
 return err
}
if err = addSetLoggerMiddleware(stack,
options); err != nil {
 return err
}
if err = addClientRequestID(stack); err != nil {
 return err
}
if err = addComputeContentLength(stack); err != nil {
 return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
 return err
}
if err = addComputePayloadSHA256(stack); err != nil {
 return err
}
if err = addRetry(stack, options); err != nil {
 return err
}
if err = addRawResponseToMetadata(stack); err != nil {
 return err
}
if err = addRecordResponseTiming(stack); err != nil {
 return err
}
if err = addClientUserAgent(stack, options); err != nil {
 return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
 return err
}
if err = addTimeOffsetBuild(stack, c); err != nil {
 return err
}
if err = addUserAgentRetryMode(stack,
```

```
 options); err != nil {
  return err
 }
 if err = addOpAssociateLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opAssociateLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opAssociateLicense(region string)
*awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:    ServiceID,
  OperationName: "AssociateLicense",
 }
}
ListLicenses
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
 Build stack step
  ClientRequestID
  ComputeContentLength
```

```
 UserAgent
 AddTimeOffsetMiddleware
 RecursionDetection
Finalize stack step
 ResolveAuthScheme
 GetIdentity
 ResolveEndpointV2
 disableHTTPS
 ComputePayloadHash
 Retry
 RetryMetricsHeader
 setLegacyContextSigningOptions
 Signing
Deserialize stack step
 AddRawResponseToMetadata
 ErrorCloseResponseBody
 CloseResponseBody
 ResponseErrorWrapper
 RequestIDRetriever
 OperationDeserializer
 AddTimeOffsetMiddleware
 RecordResponseTiming
 RequestResponseLogger
AWS SDK for Go
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// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Deletes the specified license.
func (c *Client) DeleteLicense(ctx context.Context, params *DeleteLicenseInput, optFns ...func(*Options))
(*DeleteLicenseOutput, error) {
 if params == nil {
  params = &DeleteLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "DeleteLicense", params, optFns,
c.addOperationDeleteLicenseMiddlewares)
```

```
 if err != nil {
  return nil, err
 }

 out := result.(*DeleteLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type DeleteLicenseInput struct {

 // Amazon Resource Name (ARN) of the license.
 //
 // This member is required.
 LicenseArn *string

 // Current version of the license.
 //
 // This member is required.
 SourceVersion
 *string

 noSmithyDocumentSerde
}

type DeleteLicenseOutput struct {

 // Date when the license is deleted.
 DeletionDate *string

 // License status.
 Status types.LicenseDeletionStatus

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationDeleteLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpDeleteLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpDeleteLicense{}, middleware.After)
```

```
if err != nil {
 return err
}
if err := addProtocolFinalizerMiddlewares(stack, options, "DeleteLicense"); err != nil {
 return fmt.Errorf("add protocol finalizers: %v", err)
}

if err = addlegacyEndpointContextSetter(stack, options); err !=
nil {
 return err
}
if err = addSetLoggerMiddleware(stack, options); err != nil {
 return err
}
if err = addClientRequestID(stack); err != nil {
 return err
}
if err = addComputeContentLength(stack); err != nil {
 return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
 return err
}
if err = addComputePayloadSHA256(stack); err != nil {
 return err
}
if err = addRetry(stack, options); err != nil {
 return err
}
if err = addRawResponseToMetadata(stack); err != nil {
 return err
}
if err = addRecordResponseTiming(stack); err != nil {
 return err
}
if err = addClientUserAgent(stack, options); err != nil {
 return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
 return err
}
if err = addTimeOffsetBuild(stack, c); err != nil
```

```
 {
  return err
 }
 if err = addUserAgentRetryMode(stack, options); err != nil {
  return err
 }
 if err = addOpDeleteLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opDeleteLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opDeleteLicense(region string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:    ServiceID,
  OperationName: "DeleteLicense",
 }
}
DeleteLicense
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
  OperationInputValidation
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
```

Build stack step
ClientRequestID
ComputeContentLength
UserAgent
AddTimeOffsetMiddleware
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
AddTimeOffsetMiddleware
RecordResponseTiming
RequestResponseLogger
GetLicense
Initialize stack step
RegisterServiceMetadata
legacyEndpointContextSetter
SetLogger
OperationInputValidation
Serialize stack step
setOperationInput
ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
UserAgent
AddTimeOffsetMiddleware
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash

```
 Retry
 RetryMetricsHeader
 setLegacyContextSigningOptions
 Signing
Deserialize stack step
 AddRawResponseToMetadata
 ErrorCloseResponseBody
 CloseResponseBody
 ResponseErrorWrapper
 RequestIDRetriever
 OperationDeserializer
 AddTimeOffsetMiddleware
 RecordResponseTiming
 RequestResponseLogger
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Checks out the specified license for offline use.
func (c *Client) CheckoutBorrowLicense(ctx context.Context, params *CheckoutBorrowLicenseInput, optFns
...func(*Options)) (*CheckoutBorrowLicenseOutput, error) {
 if params == nil {
  params = &CheckoutBorrowLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "CheckoutBorrowLicense", params, optFns,
c.addOperationCheckoutBorrowLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*CheckoutBorrowLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type CheckoutBorrowLicenseInput struct {

 // Unique, case-sensitive identifier that you provide to ensure the idempotency of
```

```
//
the request.
//
// This member is required.
ClientToken *string

// Digital signature method. The possible value is JSON Web Signature (JWS)
// algorithm PS384. For more information, see [RFC 7518 Digital Signature with RSASSA-PSS].
//
// [RFC 7518 Digital Signature with RSASSA-PSS]: https://tools.ietf.org/html/rfc7518#section-3.5
//
// This member is required.
DigitalSignatureMethod types.DigitalSignatureMethod

// License entitlements. Partial checkouts are not supported.
//
// This member is required.
Entitlements []types.EntitlementData

// Amazon Resource Name (ARN) of the license. The license must use the borrow
// consumption configuration.
//
// This member is required.
LicenseArn *string

// Information about constraints.
CheckoutMetadata []types.Metadata

// Node ID.
NodeId *string

noSmithyDocumentSerde
}

type CheckoutBorrowLicenseOutput struct {

// Information about constraints.
CheckoutMetadata []types.Metadata

// Allowed license entitlements.
EntitlementsAllowed
[]types.EntitlementData

// Date and time at which the license checkout expires.
Expiration *string

// Date and time at which the license checkout is issued.
IssuedAt *string
```

```
 // Amazon Resource Name (ARN) of the license.
 LicenseArn *string

 // License consumption token.
 LicenseConsumptionToken *string

 // Node ID.
 NodeId *string

 // Signed token.
 SignedToken *string

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationCheckoutBorrowLicenseMiddlewares(stack *middleware.Stack, options Options) (err
error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpCheckoutBorrowLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpCheckoutBorrowLicense{}, middleware.After)
 if err != nil {
  return
 err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "CheckoutBorrowLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
```

```
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return
 err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
  return err
 }
 if err = addUserAgentRetryMode(stack, options); err != nil {
  return err
 }
 if err = addOpCheckoutBorrowLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opCheckoutBorrowLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
```

```
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opCheckoutBorrowLicense(region
 string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName: "CheckoutBorrowLicense",
 }
}
```

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```
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Checks in the specified license. Check in a license when it is no longer in use.
func (c *Client) CheckInLicense(ctx context.Context, params *CheckInLicenseInput, optFns ...func(*Options))
(*CheckInLicenseOutput, error) {
 if params == nil {
  params = &CheckInLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "CheckInLicense", params, optFns,
c.addOperationCheckInLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*CheckInLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type CheckInLicenseInput struct {

 // License consumption token.
 //
 // This member is required.
 LicenseConsumptionToken *string

 // License beneficiary.
 Beneficiary *string

 noSmithyDocumentSerde
}

type
 CheckInLicenseOutput struct {
 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata
```

```
 noSmithyDocumentSerde
}

func (c *Client) addOperationCheckInLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpCheckInLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpCheckInLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "CheckInLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if
 err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
```

```
 return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
 return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
 return err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
 return err
 }
 if err = addUserAgentRetryMode(stack, options); err != nil {
 return err
 }
 if err = addOpCheckInLicenseValidationMiddleware(stack); err != nil
 {
 return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opCheckInLicense(options.Region),
middleware.Before); err != nil {
 return err
 }
 if err = addRecursionDetection(stack); err != nil {
 return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
 return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
 return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
 return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
 return err
 }
 return nil
}

func newServiceMetadataMiddleware_opCheckInLicense(region string) *awsmiddleware.RegisterServiceMetadata
{
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:    ServiceID,
```

OperationName: "CheckInLicense",
}
}

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// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Lists the licenses for your account.
func (c *Client) ListLicenses(ctx context.Context, params *ListLicensesInput, optFns ...func(*Options))
(*ListLicensesOutput, error) {
 if params == nil {
  params = &ListLicensesInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "ListLicenses", params, optFns,
c.addOperationListLicensesMiddlewares)
 if err != nil {
  return nil, err
 }
```

```
 out := result.(*ListLicensesOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type ListLicensesInput struct {

 // Filters to scope the results. The following filters are supported:
 //
 //   - Beneficiary
 //
 //   - ProductSKU
 //
 //   - Fingerprint
 //
 //   - Status
 Filters
 []types.Filter

 // Amazon Resource Names (ARNs) of the licenses.
 LicenseArns []string

 // Maximum number of results to return in a single call.
 MaxResults *int32

 // Token for the next set of results.
 NextToken *string

 noSmithyDocumentSerde
}

type ListLicensesOutput struct {

 // License details.
 Licenses []types.License

 // Token for the next set of results.
 NextToken *string

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationListLicensesMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
```

```
}
err = stack.Serialize.Add(&awsAwsjson11_serializeOpListLicenses{}, middleware.After)
if err != nil {
 return err
}
err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpListLicenses{}, middleware.After)
if err != nil {
 return err
}
if err := addProtocolFinalizerMiddlewares(stack,
options, "ListLicenses"); err != nil {
 return fmt.Errorf("add protocol finalizers: %v", err)
}

if err = addlegacyEndpointContextSetter(stack, options); err != nil {
 return err
}
if err = addSetLoggerMiddleware(stack, options); err != nil {
 return err
}
if err = addClientRequestID(stack); err != nil {
 return err
}
if err = addComputeContentLength(stack); err != nil {
 return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
 return err
}
if err = addComputePayloadSHA256(stack); err != nil {
 return err
}
if err = addRetry(stack, options); err != nil {
 return err
}
if err = addRawResponseToMetadata(stack); err != nil {
 return err
}
if err = addRecordResponseTiming(stack); err != nil {
 return err
}
if err = addClientUserAgent(stack, options); err != nil {
 return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack);
```

```
 err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
  return err
 }
 if err = addUserAgentRetryMode(stack, options); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opListLicenses(options.Region), middleware.Before);
err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opListLicenses(region string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:
     ServiceID,
  OperationName: "ListLicenses",
 }
}
CheckInLicense
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
  OperationInputValidation
```

Serialize stack step
setOperationInput
ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
UserAgent
AddTimeOffsetMiddleware
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
AddTimeOffsetMiddleware
RecordResponseTiming
RequestResponseLogger


```
{
  "smithy": "2.0",
  "shapes": {
    "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException": {
      "type": "structure",
      "members": {
        "message": {
          "target": "smithy.api#String"
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>You don't have sufficient access to perform this action.</p>",
        "smithy.api#error": "client"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ActiveDirectoryIdentityProvider": {
      "type": "structure",
      "members": {
```

```
            "DirectoryId": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The directory ID for an Active Directory identity provider.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#documentation":
"<p>Details about an Active Directory identity provider.</p>"
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#AssociateUser": {
         "type": "operation",
         "input": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AssociateUserRequest"
         },
         "output": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AssociateUserResponse"
         },
         "errors": [
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
             },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Associates the user to an EC2 instance to utilize user-based
subscriptions.</p>\n         <note>\n            <p>Your estimated bill for charges on the number of users and related
costs will take 48\n         hours to appear for billing periods that haven't closed (marked as <b>Pending</b> billing
status) in Amazon Web Services Billing. For more information, see <a
```

```
href=\"https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/invoice.html\">Viewing your\n
        monthly charges</a> in the <i>Amazon Web Services Billing User Guide</i>.</p>\n        </note>",
            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/user/AssociateUser"
            },
            "smithy.api#idempotent": {}
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#AssociateUserRequest": {
        "type": "structure",
        "members": {
            "Username": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The user name from the identity provider for the user.</p>",
                    "smithy.api#required": {}
                }
            },
            "InstanceId": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The ID of the
EC2 instance, which provides user-based subscriptions.</p>",
                    "smithy.api#required": {}
                }
            },
            "IdentityProvider": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
                "traits": {
                    "smithy.api#documentation": "<p>The identity provider of the user.</p>",
                    "smithy.api#required": {}
                }
            },
            "Domain": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The domain name of the user.</p>"
                }
            }
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#AssociateUserResponse": {
        "type": "structure",
        "members": {
            "InstanceUserSummary": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummary",
```

```
            "traits": {
              "smithy.api#documentation": "<p>Metadata that describes the associate user operation.</p>",
              "smithy.api#required": {}
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#BoxInteger": {
        "type": "integer"
      },
      "com.amazonaws.licensemanagerusersubscriptions#ConflictException": {
        "type": "structure",
        "members": {
          "message": {
            "target": "smithy.api#String"
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>The request couldn't be completed because it conflicted with the current state of the\n      resource.</p>",
          "smithy.api#error": "server"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProvider":
 {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProviderRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProviderResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
```

```
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Deregisters the identity provider from providing user-based
subscriptions.</p>",
            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/identity-provider/DeregisterIdentityProvider"
            },
            "smithy.api#idempotent": {}
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProviderRequest": {
        "type": "structure",
        "members": {
            "IdentityProvider": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
                "traits": {
                    "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
                    "smithy.api#required": {}
                }
            },
            "Product": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
                    "smithy.api#required": {}
                }
            }
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProviderResponse": {
        "type": "structure",
        "members": {
            "IdentityProviderSummary": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary",
                "traits": {
                    "smithy.api#documentation":
"<p>Metadata that describes the results of an identity provider operation.</p>",
                    "smithy.api#required": {}
                }
```

```
            }
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#DisassociateUser": {
          "type": "operation",
          "input": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#DisassociateUserRequest"
          },
          "output": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#DisassociateUserResponse"
          },
          "errors": [
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
             },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Disassociates the user from an EC2 instance providing user-based
subscriptions.</p>",
            "smithy.api#http": {
              "code": 200,
              "method": "POST",
              "uri": "/user/DisassociateUser"
            },
            "smithy.api#idempotent": {}
          }

 },
        "com.amazonaws.licensemanagerusersubscriptions#DisassociateUserRequest": {
          "type": "structure",
```

```
        "members": {
          "Username": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The user name from the identity provider for the user.</p>",
              "smithy.api#required": {}
            }
          },
          "InstanceId": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The ID of the EC2 instance, which provides user-based
subscriptions.</p>",
              "smithy.api#required": {}
            }
          },
          "IdentityProvider": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
            "traits": {
              "smithy.api#documentation":
 "<p>An object that specifies details for the identity provider.</p>",
              "smithy.api#required": {}
            }
          },
          "Domain": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The domain name of the user.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#DisassociateUserResponse": {
        "type": "structure",
        "members": {
          "InstanceUserSummary": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummary",
            "traits": {
              "smithy.api#documentation": "<p>Metadata that describes the associate user operation.</p>",
              "smithy.api#required": {}
            }
          }
        }
      },

 "com.amazonaws.licensemanagerusersubscriptions#Filter": {
        "type": "structure",
        "members": {
```

```
            "Attribute": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The name of an attribute to use as a filter.</p>"
               }
            },
            "Operation": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The type of search (For example, eq, geq, leq)</p>"
               }
            },
            "Value": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>Value of the filter.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#documentation": "<p>A filter name and value pair that is used
 to return more specific results from a describe\n      operation. Filters can be used to match a set of resources by
specific criteria, such as tags,\n      attributes, or IDs.</p>"
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#FilterList": {
         "type": "list",
         "member": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#Filter"
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider": {
         "type": "union",
         "members": {
            "ActiveDirectoryIdentityProvider": {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ActiveDirectoryIdentityProvider",
               "traits": {
                  "smithy.api#documentation": "<p>An object that details an Active Directory identity provider.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#documentation":
 "<p>Details about an identity provider.</p>"
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary": {
         "type": "structure",
```

```
        "members": {
          "IdentityProvider": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
            "traits": {
              "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
              "smithy.api#required": {}
            }
          },
          "Settings": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#Settings",
            "traits": {
              "smithy.api#documentation": "<p>An object that details the registered identity providers product related configuration\n      settings such as the subnets to provision VPC endpoints.</p>",
              "smithy.api#required": {}
            }
          },
          "Product": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
              "smithy.api#required": {}
            }
          },
          "Status": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The status of an identity provider.</p>",
              "smithy.api#required": {}
            }
          },
          "FailureMessage": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The failure message associated with an identity provider.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Describes an identity provider.</p>"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummaryList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary"
        }
```

```
    },
    "com.amazonaws.licensemanagerusersubscriptions#InstanceSummary": {
      "type": "structure",
      "members": {
        "InstanceId": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The ID of the EC2 instance, which provides user-based
subscriptions.</p>",
            "smithy.api#required": {}
          }
        },
        "Status": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The status
 of an EC2 instance resource.</p>",
            "smithy.api#required": {}
          }
        },
        "Products": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#StringList",
          "traits": {
            "smithy.api#documentation": "<p>A list of provided user-based subscription products.</p>",
            "smithy.api#required": {}
          }
        },
        "LastStatusCheckDate": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The date of the last status check.</p>"
          }
        },
        "StatusMessage": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The status message for an EC2 instance.</p>"
          }

    }
      },
      "traits": {
        "smithy.api#documentation": "<p>Describes an EC2 instance providing user-based subscriptions.</p>"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#InstanceSummaryList": {
      "type": "list",
      "member": {
```

```
            "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceSummary"
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummary": {
          "type": "structure",
          "members": {
            "Username": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The user name from the identity provider for the user.</p>",
                "smithy.api#required": {}
              }
            },
            "InstanceId": {
              "target": "smithy.api#String",
              "traits":
{
                "smithy.api#documentation": "<p>The ID of the EC2 instance, which provides user-based
subscriptions.</p>",
                "smithy.api#required": {}
              }
            },
            "IdentityProvider": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
              "traits": {
                "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
                "smithy.api#required": {}
              }
            },
            "Status": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The status of a user associated with an EC2 instance.</p>",
                "smithy.api#required": {}
              }
            },
            "StatusMessage": {
              "target": "smithy.api#String",
               "traits": {
                "smithy.api#documentation": "<p>The status message for users of an EC2 instance.</p>"
              }
            },
            "Domain": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The domain name of the user.</p>"
              }
            },
```

```
            "AssociationDate": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The date a user was associated with an EC2 instance.</p>"
               }
            },
            "DisassociationDate": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The date a user was disassociated from an EC2 instance.</p>"
               }
            }

   },
         "traits": {
            "smithy.api#documentation": "<p>Describes users of an EC2 instance providing user-based
subscriptions.</p>"
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummaryList": {
         "type": "list",
         "member": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummary"
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#InternalServerException": {
         "type": "structure",
         "members": {
            "message": {
               "target": "smithy.api#String"
            }
         },
         "traits": {
            "smithy.api#documentation": "<p>An exception occurred with the service.</p>",
            "smithy.api#error": "server"
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#LicenseManagerUserSubscriptions": {
         "type": "service",

       "version": "2018-05-10",
         "operations": [
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#AssociateUser"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProvider"
            },
```

```
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#DisassociateUser"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProviders"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListInstances"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptions"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociations"

},
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProvider"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscription"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscription"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettings"
        }
      ],
      "traits": {
        "aws.api#service": {
          "sdkId": "License Manager User Subscriptions",
          "arnNamespace": "license-manager-user-subscriptions",
          "cloudTrailEventSource": "license-manager-user-subscriptions.amazonaws.com"
        },
        "aws.auth#sigv4": {
          "name": "license-manager-user-subscriptions"
         },
        "aws.protocols#restJson1": {},
        "smithy.api#cors": {
          "additionalAllowedHeaders": [
            "*",
            "content-type",
            "x-amz-content-sha256",
            "x-amz-user-agent",
            "x-amzn-platform-id",
            "x-amzn-trace-id",
            "content-length",
```

```
            "x-api-key",
            "authorization",
            "x-amz-date",
            "x-amz-security-token",
            "Access-Control-Allow-Headers",
            "Access-Control-Allow-Methods",
            "Access-Control-Allow-Origin"
          ],
          "additionalExposedHeaders": [
            "x-amzn-errortype",
            "x-amzn-requestid",
            "x-amzn-trace-id"

]
        },
        "smithy.api#documentation": "<p>With License Manager, you can create user-based subscriptions to utilize licensed software with\n      a per user subscription fee on Amazon EC2 instances.</p>",
        "smithy.api#title": "AWS License Manager User Subscriptions",
        "smithy.rules#endpointRuleSet": {
          "version": "1.0",
          "parameters": {
            "Region": {
              "builtIn": "AWS::Region",
              "required": false,
              "documentation": "The AWS region used to dispatch the request.",
              "type": "String"
            },
            "UseDualStack": {
              "builtIn": "AWS::UseDualStack",
              "required": true,
              "default": false,
              "documentation": "When true, use the dual-stack
 endpoint. If the configured endpoint does not support dual-stack, dispatching the request MAY return an error.",
              "type": "Boolean"
            },
            "UseFIPS": {
              "builtIn": "AWS::UseFIPS",
              "required": true,
              "default": false,
              "documentation": "When true, send this request to the FIPS-compliant regional endpoint. If the configured endpoint does not have a FIPS compliant endpoint, dispatching the request will return an error.",
              "type": "Boolean"
            },
            "Endpoint": {
              "builtIn": "SDK::Endpoint",
              "required": false,
              "documentation": "Override the endpoint used to send this request",
              "type": "String"
```

```
            }

    },
        "rules": [
            {
                "conditions": [
                    {
                        "fn": "isSet",
                        "argv": [
                            {
                                "ref": "Endpoint"
                            }
                        ]
                    }
                ],
                "type": "tree",
                "rules": [
                    {
                        "conditions": [
                            {
                                "fn": "booleanEquals",
                                "argv": [
                                    {
                                        "ref": "UseFIPS"
                                    },

                                    true
                                    ]
                            }
                        ],
                        "error": "Invalid Configuration: FIPS and custom endpoint are not supported",
                        "type": "error"
                    },
                    {
                        "conditions": [
                            {
                                "fn": "booleanEquals",
                                "argv": [
                                    {
                                        "ref": "UseDualStack"
                                    },
                                    true
                                ]
                            }
                        ],

        "error": "Invalid Configuration: Dualstack and custom endpoint are not supported",
                        "type": "error"
```

```
            },
            {
              "conditions": [],
              "endpoint": {
                "url": {
                  "ref": "Endpoint"
                },
                "properties": {},
                "headers": {}
              },
              "type": "endpoint"
            }
          ]
        },
        {
          "conditions": [
            {
              "fn": "isSet",
              "argv": [

    {
                  "ref": "Region"
                }
              ]
            }
          ],
          "type": "tree",
          "rules": [
            {
              "conditions": [
                {
                  "fn": "aws.partition",
                  "argv": [
                    {
                      "ref": "Region"
                    }
                  ],
                  "assign": "PartitionResult"
                }
              ],
              "type": "tree",

"rules": [
                {
                  "conditions": [
                    {
                      "fn": "booleanEquals",
                      "argv": [
```

```
                {
                  "ref": "UseFIPS"
                },
                true
              ]
            },
            {
              "fn": "booleanEquals",
              "argv": [
                {
                  "ref": "UseDualStack"

                },
                true
              ]
            }
          ],
          "type": "tree",
          "rules": [
            {
              "conditions": [
                {
                  "fn": "booleanEquals",
                  "argv": [
                    true,
                    {
                      "fn": "getAttr",

"argv": [
                        {
                          "ref": "PartitionResult"
                        },
                        "supportsFIPS"
                      ]
                    }
                  ]
                },
                {
                  "fn": "booleanEquals",
                  "argv": [
                    true,
                    {

        "fn": "getAttr",
                        "argv": [
                          {
                            "ref": "PartitionResult"
                          },
```

```
                                    "supportsDualStack"
                                ]
                            }
                        ]
                    }
                ],
                "type": "tree",
                "rules": [
                    {

            "conditions": [],
                                "endpoint": {
                                    "url": "https://license-manager-user-subscriptions-
fips.{Region}.{PartitionResult#dualStackDnsSuffix}",
                                    "properties": {},
                                    "headers": {}
                                },
                                "type": "endpoint"
                            }
                        ]
                    },
                    {
                        "conditions": [],
                        "error": "FIPS and DualStack are enabled, but this partition does not support one or
both",
                         "type": "error"
                    }
                ]
            },
            {
                "conditions": [
                    {
                        "fn": "booleanEquals",
                        "argv": [
                            {
                                "ref": "UseFIPS"
                            },
                            true
                        ]
                    }
                ],
                "type": "tree",

          "rules": [
                    {
                        "conditions": [
                            {
                                "fn": "booleanEquals",
```

```
                "argv": [
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                  {
                    "fn": "getAttr",
                    "argv": [
                      {
                        "ref": "PartitionResult"
                      },
                      "supportsFIPS"

                ]
                    }
                ]
              }
            ],
            "type": "tree",
            "rules": [
              {
                "conditions": [],
                "endpoint": {
                  "url": "https://license-manager-user-subscriptions-
fips.{Region}.{PartitionResult#dnsSuffix}",
                  "properties": {},
                  "headers": {}

        },
                "type": "endpoint"
              }
            ]
          },
          {
            "conditions": [],
            "error": "FIPS is enabled but this partition does not support FIPS",
            "type": "error"
          }
        ]
      },
      {
        "conditions": [
          {
            "fn": "booleanEquals",
            "argv": [
              {
                "ref": "UseDualStack"
              },
              true
            ]
          }
```

```
                ],
                "type": "tree",
                "rules": [
                    {
                        "conditions": [
                            {
                                "fn": "booleanEquals",
                                "argv": [
                                    true,
                                    {

                                     "fn": "getAttr",
                                        "argv": [
                                            {
                                                "ref": "PartitionResult"
                                            },
                                            "supportsDualStack"
                                        ]
                                    }
                                ]
                            }
                        ],
                        "type": "tree",
                        "rules": [
                            {

                               "conditions": [],
                                "endpoint": {
                                    "url": "https://license-manager-user-
subscriptions.{Region}.{PartitionResult#dualStackDnsSuffix}",
                                    "properties": {},
                                    "headers": {}
                                },
                                "type": "endpoint"
                            }
                        ]
                    },
                    {
                        "conditions": [],
                        "error": "DualStack is enabled but this partition does
not support DualStack",
                        "type": "error"
                    }
                ]
            },
            {
                "conditions": [],
                "endpoint": {
```

```
                                "url": "https://license-manager-user-
subscriptions.{Region}.{PartitionResult#dnsSuffix}",
                                "properties": {},
                                "headers": {}
                            },
                            "type": "endpoint"
                        }
                    ]
                }
            ]
        },
        {
            "conditions":
[],
            "error": "Invalid Configuration: Missing Region",
            "type": "error"
        }
    ]
},
"smithy.rules#endpointTests": {
    "testCases": [
        {
            "documentation": "For region us-east-1 with FIPS enabled and DualStack enabled",
            "expect": {
                "endpoint": {
                    "url": "https://license-manager-user-subscriptions-fips.us-east-1.api.aws"
                }
            },
            "params": {
                "Region": "us-east-1",
                "UseFIPS": true,
                "UseDualStack": true
            }
        },
        {
            "documentation":
"For region us-east-1 with FIPS enabled and DualStack disabled",
            "expect": {
                "endpoint": {
                    "url": "https://license-manager-user-subscriptions-fips.us-east-1.amazonaws.com"
                }
            },
            "params": {
                "Region": "us-east-1",
                "UseFIPS": true,
                "UseDualStack": false
            }
        },
```

```
    {
      "documentation": "For region us-east-1 with FIPS disabled and DualStack enabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-user-subscriptions.us-east-1.api.aws"
        }
      },

    "params": {
        "Region": "us-east-1",
        "UseFIPS": false,
        "UseDualStack": true
      }
    },
    {
      "documentation": "For region us-east-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-user-subscriptions.us-east-1.amazonaws.com"
        }
      },
      "params": {
        "Region": "us-east-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region cn-north-1 with
FIPS enabled and DualStack enabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-user-subscriptions-fips.cn-north-
1.api.amazonwebservices.com.cn"
        }
      },
      "params": {
        "Region": "cn-north-1",
        "UseFIPS": true,
        "UseDualStack": true
      }
    },
    {
      "documentation": "For region cn-north-1 with FIPS enabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-user-subscriptions-fips.cn-north-1.amazonaws.com.cn"
        }
```

```
        },

    "params": {
            "Region": "cn-north-1",
            "UseFIPS": true,
            "UseDualStack": false
        }
      },
      {
        "documentation": "For region cn-north-1 with FIPS disabled and DualStack enabled",
        "expect": {
          "endpoint": {
            "url": "https://license-manager-user-subscriptions.cn-north-1.api.amazonwebservices.com.cn"
          }
        },
        "params": {
          "Region": "cn-north-1",
          "UseFIPS": false,
          "UseDualStack": true
        }
      },
      {
        "documentation": "For region cn-north-1
with FIPS disabled and DualStack disabled",
        "expect": {
          "endpoint": {
            "url": "https://license-manager-user-subscriptions.cn-north-1.amazonaws.com.cn"
          }
        },
        "params": {
          "Region": "cn-north-1",
          "UseFIPS": false,
          "UseDualStack": false
        }
      },
      {
        "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack enabled",
        "expect": {
          "endpoint": {
            "url": "https://license-manager-user-subscriptions-fips.us-gov-east-1.api.aws"
          }
        },

    "params": {
            "Region": "us-gov-east-1",
            "UseFIPS": true,
            "UseDualStack": true
        }
```

```
        },
        {
          "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-user-subscriptions-fips.us-gov-east-1.amazonaws.com"
            }
          },
          "params": {
            "Region": "us-gov-east-1",
            "UseFIPS": true,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-gov-east-1
with FIPS disabled and DualStack enabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-user-subscriptions.us-gov-east-1.api.aws"
            }
          },
          "params": {
            "Region": "us-gov-east-1",
            "UseFIPS": false,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region us-gov-east-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-user-subscriptions.us-gov-east-1.amazonaws.com"
            }
          },

    "params": {
            "Region": "us-gov-east-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack enabled",
          "expect": {
            "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
          },
          "params": {
```

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            "Region": "us-iso-east-1",
            "UseFIPS": true,
            "UseDualStack": true
          }
        },
        {
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          "expect":
{
            "endpoint": {
              "url": "https://license-manager-user-subscriptions-fips.us-iso-east-1.c2s.ic.gov"
            }
          },
          "params": {
            "Region": "us-iso-east-1",
            "UseFIPS": true,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack enabled",
          "expect": {
            "error": "DualStack is enabled but this partition does not support DualStack"
          },
          "params": {
            "Region": "us-iso-east-1",
            "UseFIPS": false,
            "UseDualStack":
true
          }
        },
        {
          "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-user-subscriptions.us-iso-east-1.c2s.ic.gov"
            }
          },
          "params": {
            "Region": "us-iso-east-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack enabled",
          "expect": {
            "error": "FIPS and DualStack are enabled, but
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this partition does not support one or both"
        },
        "params": {
          "Region": "us-isob-east-1",
          "UseFIPS": true,
          "UseDualStack": true
        }
      },
      {
        "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack disabled",
        "expect": {
          "endpoint": {
            "url": "https://license-manager-user-subscriptions-fips.us-isob-east-1.sc2s.sgov.gov"
          }
        },
        "params": {
          "Region": "us-isob-east-1",
          "UseFIPS": true,
          "UseDualStack": false
        }

    },
      {
        "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack enabled",
        "expect": {
          "error": "DualStack is enabled but this partition does not support DualStack"
        },
        "params": {
          "Region": "us-isob-east-1",
          "UseFIPS": false,
          "UseDualStack": true
        }
      },
      {
        "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack disabled",
        "expect": {
          "endpoint": {
            "url": "https://license-manager-user-subscriptions.us-isob-east-1.sc2s.sgov.gov"
          }
        },
         "params": {
          "Region": "us-isob-east-1",
          "UseFIPS": false,
          "UseDualStack": false
        }
      },
      {
        "documentation": "For custom endpoint with region set and fips disabled and dualstack disabled",
```

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      "expect": {
        "endpoint": {
          "url": "https://example.com"
        }
      },
      "params": {
        "Region": "us-east-1",
        "UseFIPS": false,
        "UseDualStack": false,
        "Endpoint": "https://example.com"
      }
    },
    {

"documentation": "For custom endpoint with region not set and fips disabled and dualstack disabled",
      "expect": {
        "endpoint": {
          "url": "https://example.com"
        }
      },
      "params": {
        "UseFIPS": false,
        "UseDualStack": false,
        "Endpoint": "https://example.com"
      }
    },
    {
      "documentation": "For custom endpoint with fips enabled and dualstack disabled",
      "expect": {
        "error": "Invalid Configuration: FIPS and custom endpoint are not supported"
      },
      "params": {
        "Region": "us-east-1",
         "UseFIPS": true,
        "UseDualStack": false,
        "Endpoint": "https://example.com"
      }
    },
    {
      "documentation": "For custom endpoint with fips disabled and dualstack enabled",
      "expect": {
        "error": "Invalid Configuration: Dualstack and custom endpoint are not supported"
      },
      "params": {
        "Region": "us-east-1",
        "UseFIPS": false,
        "UseDualStack": true,
        "Endpoint": "https://example.com"
```

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                }
            },
            {
                "documentation": "Missing region",
                "expect": {
                    "error": "Invalid Configuration: Missing Region"
                }
            }
        ],
        "version": "1.0"
    }
  }
},
"com.amazonaws.licensemanagerusersubscriptions#ListIdentityProviders": {
  "type": "operation",
  "input": {
    "target": "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProvidersRequest"
  },
  "output": {
    "target": "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProvidersResponse"
  },
  "errors": [
    {
      "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
    },
    {
      "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
    },
    {
      "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
     },
    {
      "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
    },
    {
      "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
    },
    {
      "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
    },
    {
      "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
    }
  ],
  "traits": {
    "smithy.api#documentation": "<p>Lists the identity providers for user-based subscriptions.</p>",
    "smithy.api#http": {
      "code": 200,
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            "method": "POST",
            "uri": "/identity-provider/ListIdentityProviders"
          },
          "smithy.api#paginated":
{
            "inputToken": "NextToken",
            "outputToken": "NextToken",
            "pageSize": "MaxResults",
            "items": "IdentityProviderSummaries"
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProvidersRequest": {
        "type": "structure",
        "members": {
          "MaxResults": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#BoxInteger",
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProvidersResponse":
{
        "type": "structure",
        "members": {
          "IdentityProviderSummaries": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummaryList",
            "traits": {
              "smithy.api#documentation": "<p>Metadata that describes the list identity providers operation.</p>",
              "smithy.api#required": {}
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        }
      },
```

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"com.amazonaws.licensemanagerusersubscriptions#ListInstances": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#ListInstancesRequest"
    },
    "output": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#ListInstancesResponse"
    },
    "errors": [
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
        }
    ],
    "traits": {
        "smithy.api#documentation": "<p>Lists the EC2 instances providing user-based subscriptions.</p>",
        "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/instance/ListInstances"
        },
        "smithy.api#paginated": {
            "inputToken": "NextToken",
            "outputToken": "NextToken",
            "pageSize": "MaxResults",
            "items": "InstanceSummaries"
        }
    }
},
"com.amazonaws.licensemanagerusersubscriptions#ListInstancesRequest": {
    "type": "structure",
```

```
        "members": {
          "MaxResults": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#BoxInteger",
             "traits": {
               "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
             }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          },
          "Filters": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#FilterList",
            "traits": {
              "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those
that match one or\n      more sets of key-value pairs that you specify.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListInstancesResponse": {
        "type":
 "structure",
        "members": {
          "InstanceSummaries": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceSummaryList",
            "traits": {
              "smithy.api#documentation": "<p>Metadata that describes the list instances operation.</p>"
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptions": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptionsRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptionsResponse"
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        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Lists the user-based subscription products available from an identity provider.</p>",
          "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/user/ListProductSubscriptions"
          },
          "smithy.api#paginated": {
            "inputToken": "NextToken",
            "outputToken": "NextToken",
            "pageSize": "MaxResults",
            "items": "ProductUserSummaries"
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptionsRequest": {
        "type": "structure",
        "members": {
          "Product": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The name
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of the user-based subscription product.</p>",
                    "smithy.api#required": {}
                }
            },
            "IdentityProvider": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
                "traits": {
                    "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
                    "smithy.api#required": {}
                }
            },
            "MaxResults": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#BoxInteger",
                "traits": {
                    "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
                }
            },
            "Filters": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#FilterList",
                "traits": {

  "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those that match
one or\n      more sets of key-value pairs that you specify.</p>"
                }
            },
            "NextToken": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>Token for the next set of results.</p>"
                }
            }
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptionsResponse": {
        "type": "structure",
        "members": {
            "ProductUserSummaries": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummaryList",
                "traits": {
                    "smithy.api#documentation": "<p>Metadata that describes the list product subscriptions
operation.</p>"
                }
            },

     "NextToken": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>Token for the next set of results.</p>"
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            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociations": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociationsRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociationsResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
          },
          {
            "target":
"com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Lists user associations for an identity provider.</p>",
          "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/user/ListUserAssociations"
          },
          "smithy.api#paginated":
{
            "inputToken": "NextToken",
            "outputToken": "NextToken",
            "pageSize": "MaxResults",
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            "items": "InstanceUserSummaries"
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociationsRequest": {
        "type": "structure",
        "members": {
          "InstanceId": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The ID of the EC2 instance, which provides user-based
subscriptions.</p>",
              "smithy.api#required": {}
            }
          },
          "IdentityProvider": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
            "traits": {
              "smithy.api#documentation": "<p>An object that specifies details for the identity
 provider.</p>",
              "smithy.api#required": {}
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#BoxInteger",
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          },
          "Filters": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#FilterList",
            "traits": {
              "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those
that match one or\n      more sets of key-value pairs that you specify.</p>"
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for
 the next set of results.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociationsResponse": {
        "type": "structure",
        "members": {
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        "InstanceUserSummaries": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummaryList",
          "traits": {
            "smithy.api#documentation": "<p>Metadata that describes the list user association operation.</p>"
          }
        },
        "NextToken": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>Token for the next set of results.</p>"
          }
        }
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummary": {
      "type": "structure",
      "members": {

      "Username": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The user name from the identity provider of the user.</p>",
              "smithy.api#required": {}
            }
        },
        "Product": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
            "smithy.api#required": {}
          }
        },
        "IdentityProvider": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
          "traits": {
            "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
            "smithy.api#required": {}
          }

    },
        "Status": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The status of a product for a user.</p>",
            "smithy.api#required": {}
          }
        },
        "StatusMessage": {
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            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The status message for a product for a user.</p>"
            }
          },
          "Domain": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The domain name of the user.</p>"
            }
          },
          "SubscriptionStartDate": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The
start date of a subscription.</p>"
            }
          },
          "SubscriptionEndDate": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The end date of a subscription.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>The summary of the user-based subscription products for a user.</p>"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummaryList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummary"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProvider": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProviderRequest"
         },
        "output": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProviderResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
          },
          {
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            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Registers an identity provider for user-based subscriptions.</p>",
          "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/identity-provider/RegisterIdentityProvider"
          },
          "smithy.api#idempotent": {}
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProviderRequest": {
        "type": "structure",
        "members": {
          "IdentityProvider": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
            "traits": {
              "smithy.api#documentation": "<p>An object that specifies details for the identity
provider.</p>",
              "smithy.api#required": {}
            }
          },
          "Product": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
              "smithy.api#required": {}
            }
          },
          "Settings": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#Settings",
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            "traits": {
                "smithy.api#documentation": "<p>The registered identity providers product related configuration settings such as the\n      subnets to provision VPC endpoints.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProviderResponse": {
        "type": "structure",
        "members": {
          "IdentityProviderSummary":
{
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary",
            "traits": {
              "smithy.api#documentation": "<p>Metadata that describes the results of an identity provider operation.</p>",
              "smithy.api#required": {}
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException": {
        "type": "structure",
        "members": {
          "message": {
            "target": "smithy.api#String"
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>The resource couldn't be found.</p>",
          "smithy.api#error": "client",
          "smithy.api#httpError": 404
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#SecurityGroup": {
        "type": "string",

    "traits": {
          "smithy.api#length": {
            "min": 5,
            "max": 200
          },
          "smithy.api#pattern": "^sg-(([0-9a-z]{8})|([0-9a-z]{17}))$"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException": {
        "type": "structure",
        "members": {
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            "message": {
                "target": "smithy.api#String"
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>The request failed because a service quota is exceeded.</p>",
            "smithy.api#error": "client"
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#Settings": {
        "type": "structure",
        "members": {
            "Subnets": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#Subnets",
                "traits": {
                    "smithy.api#documentation":
"<p>The subnets defined for the registered identity provider.</p>",
                    "smithy.api#length": {
                        "min": 1
                    },
                    "smithy.api#required": {}
                }
            },
            "SecurityGroupId": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#SecurityGroup",
                "traits": {
                    "smithy.api#documentation": "<p>A security group ID that allows inbound TCP port 1688
communication between resources in\n      your VPC and the VPC endpoint for activation servers.</p>",
                    "smithy.api#required": {}
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>The registered identity providers product related configuration settings
such as the\n      subnets to provision VPC endpoints, and the security group ID that
 is associated with the VPC\n      endpoints. The security group should permit inbound TCP port 1688
communication from resources\n      in the VPC.</p>"
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscription": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscriptionRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscriptionResponse"
        },
        "errors": [
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            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Starts a product subscription for a user with the specified identity provider.</p>\n <note>\n <p>Your estimated bill for charges on the number of users and related costs will take 48\n hours to appear for billing periods that haven't closed (marked as <b>Pending</b> billing status) in Amazon Web Services Billing.
 For more information, see <a href=\"https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/invoice.html\">Viewing your\n monthly charges</a> in the <i>Amazon Web Services Billing User Guide</i>.</p>\n </note>",
            "smithy.api#http": {
              "code": 200,
              "method": "POST",
              "uri": "/user/StartProductSubscription"
            }
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscriptionRequest": {
          "type": "structure",
          "members": {
            "Username": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The user name from the identity provider of the user.</p>",
                "smithy.api#required": {}
              }
            },
            "IdentityProvider": {
```

```
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
             "traits": {
               "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
               "smithy.api#required": {}
             }
           },
           "Product": {
             "target": "smithy.api#String",
             "traits": {
               "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
               "smithy.api#required": {}
             }
           },
           "Domain": {
             "target": "smithy.api#String",
             "traits": {
               "smithy.api#documentation": "<p>The domain name of the user.</p>"
             }
           }
         }
       },
       "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscriptionResponse": {
         "type": "structure",
          "members": {
           "ProductUserSummary": {
             "target": "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummary",
             "traits": {
               "smithy.api#documentation": "<p>Metadata that describes the start product subscription
operation.</p>",
               "smithy.api#required": {}
             }
           }
         }
       },
       "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscription": {
         "type": "operation",
         "input": {
           "target": "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscriptionRequest"
         },
         "output": {
           "target": "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscriptionResponse"
         },
         "errors": [
           {
             "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"

   },
           {
```

```
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Stops a product subscription for a user with the specified identity
provider.</p>",
          "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/user/StopProductSubscription"
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscriptionRequest": {
        "type": "structure",
        "members": {
          "Username": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The user name from the identity provider for the user.</p>",
              "smithy.api#required": {}
            }
          },
          "IdentityProvider": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
            "traits": {
              "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
              "smithy.api#required":
{}
            }
          },
          "Product": {
            "target": "smithy.api#String",
```

```
            "traits": {
              "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
              "smithy.api#required": {}
            }
          },
          "Domain": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The domain name of the user.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscriptionResponse": {
        "type": "structure",
        "members": {
          "ProductUserSummary": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummary",
            "traits": {
              "smithy.api#documentation":
"<p>Metadata that describes the start product subscription operation.</p>",
              "smithy.api#required": {}
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#StringList": {
        "type": "list",
        "member": {
          "target": "smithy.api#String"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#Subnet": {
        "type": "string",
        "traits": {
          "smithy.api#pattern": "subnet-[a-z0-9]{8,17}"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#Subnets": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#Subnet"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException": {
        "type": "structure",
        "members": {
          "message": {
```

```
            "target": "smithy.api#String"
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>The request was denied because of request throttling. Retry the
request.</p>",
          "smithy.api#error": "client"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettings": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettingsRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettingsResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Updates additional product configuration settings for the registered
identity\n      provider.</p>",
          "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/identity-provider/UpdateIdentityProviderSettings"
          },
          "smithy.api#idempotent": {}
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettingsRequest": {
        "type": "structure",
        "members": {
          "IdentityProvider": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
```

```
            "traits": {
              "smithy.api#required": {}
            }
          },
          "Product": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
              "smithy.api#required": {}
            }
          },
          "UpdateSettings": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#UpdateSettings",
            "traits": {
              "smithy.api#documentation": "<p>Updates the registered identity providers product related configuration settings. You can\n      update any combination of settings in a single operation such as the:</p>\n <ul>\n <li>\n <p>Subnets which you want to add to provision VPC endpoints.</p>\n </li>\n <li>\n <p>Subnets which you want to remove the VPC endpoints from.</p>\n </li>\n <li>\n <p>Security group ID which permits traffic to the VPC endpoints.</p>\n </li>\n </ul>",
              "smithy.api#required": {}
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettingsResponse": {
        "type": "structure",
        "members": {
          "IdentityProviderSummary": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary",
            "traits": {
              "smithy.api#required": {}
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#UpdateSettings": {
        "type": "structure",
        "members": {
          "AddSubnets": {

           "target": "com.amazonaws.licensemanagerusersubscriptions#Subnets",
            "traits": {
              "smithy.api#documentation": "<p>The ID of one or more subnets in which License Manager will create a VPC endpoint for products that\n      require connectivity to activation servers.</p>",
              "smithy.api#required": {}
            }
          },
          "RemoveSubnets": {
```

```
                "target": "com.amazonaws.licensemanagerusersubscriptions#Subnets",
                "traits": {
                    "smithy.api#documentation": "<p>The ID of one or more subnets to remove.</p>",
                    "smithy.api#required": {}
                }
            },
            "SecurityGroupId": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#SecurityGroup",
                "traits": {
                    "smithy.api#documentation": "<p>A security group ID
 that allows inbound TCP port 1688 communication between resources in\n      your VPC and the VPC endpoints for
activation servers.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>Updates the registered identity providers product related configuration
settings such as\n      the subnets to provision VPC endpoints.</p>"
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ValidationException": {
        "type": "structure",
        "members": {
            "message": {
                "target": "smithy.api#String"
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>A parameter is not valid.</p>",
            "smithy.api#error": "client"
        }
    }
  }
}
```


1.568 aws-sdk-go-v2-internal-ini 1.8.0

1.568.1 Available under license :

```
// Code generated by smithy-go-codegen DO NOT EDIT.

package grafana

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/aws/signer/v4"
```

```
 "github.com/aws/aws-sdk-go-v2/service/grafana/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Assigns a Grafana Enterprise license to a workspace. Upgrading to Grafana
// Enterprise incurs additional fees. For more information, see Upgrade a
// workspace to Grafana Enterprise (https://docs.aws.amazon.com/grafana/latest/userguide/upgrade-to-Grafana-
Enterprise.html)
// .
func (c *Client) AssociateLicense(ctx context.Context, params *AssociateLicenseInput, optFns ...func(*Options))
(*AssociateLicenseOutput, error) {
 if params == nil {
  params = &AssociateLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "AssociateLicense", params, optFns,
c.addOperationAssociateLicenseMiddlewares)
 if err != nil {
  return nil,
 err
 }

 out := result.(*AssociateLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type AssociateLicenseInput struct {

 // The type of license to associate with the workspace.
 //
 // This member is required.
 LicenseType types.LicenseType

 // The ID of the workspace to associate the license with.
 //
 // This member is required.
 WorkspaceId *string

 noSmithyDocumentSerde
}

type AssociateLicenseOutput struct {

 // A structure containing data about the workspace.
 //
 // This member is required.
```

```
 Workspace *types.WorkspaceDescription

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationAssociateLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsRestjson1_serializeOpAssociateLicense{}, middleware.After)
 if err !=
 nil {
  return err
 }
 err = stack.Deserialize.Add(&awsRestjson1_deserializeOpAssociateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "AssociateLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = awsmiddleware.AddClientRequestIDMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddComputeContentLengthMiddleware(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = v4.AddComputePayloadSHA256Middleware(stack); err != nil {
  return err
 }
 if err = addRetryMiddlewares(stack, options); err != nil {
  return err
 }
 if err = awsmiddleware.AddRawResponseToMetadata(stack); err != nil {
  return err
```

```
 }
 if err = awsmiddleware.AddRecordResponseTiming(stack);
 err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addOpAssociateLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opAssociateLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = awsmiddleware.AddRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack,
 options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opAssociateLicense(region string)
*awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
```

```
  OperationName: "AssociateLicense",
 }
}
```

AWS SDK for Go

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```
name: License Scan

on: [pull_request]

jobs:
 licensescan:
   name: License Scan
   runs-on: ubuntu-latest
   strategy:
     matrix:
       python-version: [3.9]

   steps:
     - name: Checkout target
       uses: actions/checkout@v2
       with:
         path: sdkbase
         ref: ${{ github.base_ref }}
     - name: Checkout this ref
       uses: actions/checkout@v2
       with:
         path: new-ref
         fetch-depth: 0
     - name: Get Diff
       run: git --git-dir ./new-ref/.git diff --name-only --diff-filter=ACMRT ${{ github.event.pull_request.base.sha }}
${{ github.sha }} > refDiffFiles.txt
     - name: Get Target Files
       run: git --git-dir ./sdkbase/.git ls-files | grep -xf refDiffFiles.txt - > targetFiles.txt
     - name: Checkout scancode
       uses: actions/checkout@v2
       with:
         repository: nexB/scancode-toolkit
         path: scancode-toolkit
         fetch-depth: 1
     - name: Set up Python ${{ matrix.python-version }}
        uses: actions/setup-python@v2
       with:
         python-version: ${{ matrix.python-version }}
     # ScanCode
     - name: Self-configure scancode
       working-directory: ./scancode-toolkit
       run: ./scancode --help
```

```
    - name: Run Scan code on target
      run: cat targetFiles.txt | while read filename; do echo ./sdkbase/$filename; done | xargs ./scancode-toolkit/scancode -l -n 30 --json-pp - | grep short_name | sort | uniq >> old-licenses.txt
    - name: Run Scan code on pr ref
      run: cat refDiffFiles.txt | while read filename; do echo ./new-ref/$filename; done | xargs ./scancode-toolkit/scancode -l -n 30 --json-pp - | grep short_name | sort | uniq >> new-licenses.txt
    # compare
    - name: License test
      run: if ! cmp old-licenses.txt new-licenses.txt; then echo "Licenses differ! Failing."; exit -1; else echo "Licenses are the same. Success."; exit 0; fi
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/aws/signer/v4"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Checks in the specified license. Check in a license when it is no longer in use.
func (c *Client) CheckInLicense(ctx context.Context, params *CheckInLicenseInput, optFns ...func(*Options))
(*CheckInLicenseOutput, error) {
 if params == nil {
  params = &CheckInLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "CheckInLicense", params, optFns,
c.addOperationCheckInLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*CheckInLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type CheckInLicenseInput struct {

 // License consumption token.
 //
 // This member is required.
 LicenseConsumptionToken *string
```

```
 // License beneficiary.
 Beneficiary
 *string

 noSmithyDocumentSerde
}

type CheckInLicenseOutput struct {
 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationCheckInLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpCheckInLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpCheckInLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "CheckInLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = awsmiddleware.AddClientRequestIDMiddleware(stack);
 err != nil {
  return err
 }
 if err = smithyhttp.AddComputeContentLengthMiddleware(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = v4.AddComputePayloadSHA256Middleware(stack); err != nil {
  return err
```

```
 }
 if err = addRetryMiddlewares(stack, options); err != nil {
  return err
 }
 if err = awsmiddleware.AddRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = awsmiddleware.AddRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addOpCheckInLicenseValidationMiddleware(stack); err != nil {
  return
 err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opCheckInLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = awsmiddleware.AddRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}
```

```
func newServiceMetadataMiddleware_opCheckInLicense(region string) *awsmiddleware.RegisterServiceMetadata
{
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:    ServiceID,
  OperationName: "CheckInLicense",
 }
}
{
  "smithy": "2.0",
  "shapes": {
    "com.amazonaws.licensemanagerlinuxsubscriptions#BoxInteger": {
      "type": "integer"
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#BoxLong": {
      "type": "long"
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#Filter": {
      "type": "structure",
      "members": {
        "Name": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The type of name to filter by.</p>"
          }
        },
        "Values": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringList",
          "traits": {
            "smithy.api#documentation": "<p>One or more values for the name to filter by.</p>"
          }
        },
        "Operator": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Operator",
           "traits": {
            "smithy.api#documentation": "<p>An operator for filtering results.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>A filter object that is used to return more specific results from a describe
operation.\n      Filters can be used to match a set of resources by specific criteria.</p>"
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#FilterList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Filter"
```

```
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettings": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettingsRequest"
        },
        "output": {

          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettingsResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Lists the Linux subscriptions service settings.</p>",
          "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/subscription/GetServiceSettings"
          },
          "smithy.api#idempotent": {}
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettingsRequest":
{
        "type": "structure",
        "members": {}
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettingsResponse": {
        "type": "structure",
        "members": {
          "LinuxSubscriptionsDiscovery": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscovery",
            "traits": {
              "smithy.api#documentation": "<p>Lists if discovery has been enabled for Linux subscriptions.</p>"
            }
          },
          "LinuxSubscriptionsDiscoverySettings": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscoverySettings",
```

```
            "traits": {
                "smithy.api#documentation": "<p>Lists the settings defined for Linux subscriptions discovery. The
settings include if\n      Organizations integration has been enabled, and
 which Regions data will be aggregated from.</p>"
            }
          },
          "Status": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Status",
            "traits": {
              "smithy.api#documentation": "<p>Indicates the status of Linux subscriptions settings being
applied.</p>"
            }
          },
          "StatusMessage": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringMap",
            "traits": {
              "smithy.api#documentation": "<p>A message which details the Linux subscriptions service settings
current status.</p>"
            }
          },
          "HomeRegions": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringList",
            "traits": {
              "smithy.api#documentation": "<p>The Region in which License Manager displays
 the aggregated data for Linux\n      subscriptions.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#Instance": {
        "type": "structure",
        "members": {
          "AmiId": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The AMI ID used to launch the instance.</p>"
            }
          },
          "InstanceID": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The instance ID of the resource.</p>"
            }
          },
          "InstanceType": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The instance type of the resource.</p>"
```

```
            }

        },
            "AccountID": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The account ID which owns the instance.</p>"
              }
            },
            "Status": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The status of the instance.</p>"
              }
            },
            "Region": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The Region the instance is running in.</p>"
              }
            },
            "UsageOperation": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The usage operation of the instance. For more information, see For
 more information, see\n        <a href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/linux-
subscriptions-usage-operation.html\">Usage\n        operation values</a> in the <i>License Manager User
Guide</i>.</p>"
              }
            },
            "ProductCode": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ProductCodeList",
              "traits": {
                "smithy.api#documentation": "<p>The product code for the instance. For more information, see <a
href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/linux-subscriptions-usage-
operation.html\">Usage\n        operation values</a> in the <i>License Manager User Guide</i> .</p>"
              }
            },
            "LastUpdatedTime": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The time in which the last discovery
 updated the instance details.</p>"
              }
            },
            "SubscriptionName": {
              "target": "smithy.api#String",
              "traits": {
```

```
                "smithy.api#documentation": "<p>The name of the subscription being used by the instance.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>Details discovered information about a running instance using Linux subscriptions.</p>"
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#InstanceList": {
          "type": "list",
          "member": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Instance"
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException": {
          "type": "structure",
          "members": {
            "message": {
              "target": "smithy.api#String"
             }
          },
          "traits": {
            "smithy.api#documentation": "<p>An exception occurred with the service.</p>",
            "smithy.api#error": "server"
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#LicenseManagerLinuxSubscriptions": {
          "type": "service",
          "version": "2018-05-10",
          "operations": [
            {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettings"
            },
            {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstances"
            },
            {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptions"
            },
            {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettings"
            }
          ],

        "traits": {
            "aws.api#service": {
              "sdkId": "License Manager Linux Subscriptions",
```

```
            "arnNamespace": "license-manager-linux-subscriptions",
            "cloudTrailEventSource": "license-manager-linux-subscriptions.amazonaws.com"
          },
          "aws.auth#sigv4": {
            "name": "license-manager-linux-subscriptions"
          },
          "aws.protocols#restJson1": {},
          "smithy.api#cors": {
            "additionalAllowedHeaders": [
              "*",
              "content-type",
              "x-amz-content-sha256",
              "x-amz-user-agent",
              "x-amzn-platform-id",
              "x-amzn-trace-id",
              "content-length",
              "x-api-key",
              "authorization",
              "x-amz-date",

 "x-amz-security-token",
              "Access-Control-Allow-Headers",
              "Access-Control-Allow-Methods",
              "Access-Control-Allow-Origin"
            ],
            "additionalExposedHeaders": [
              "x-amzn-errortype",
              "x-amzn-requestid",
              "x-amzn-trace-id"
            ]
          },
          "smithy.api#documentation": "<p>With License Manager, you can discover and track your commercial
Linux subscriptions on running\n      Amazon EC2 instances.</p>",
          "smithy.api#title": "AWS License Manager Linux Subscriptions",
          "smithy.rules#endpointRuleSet": {
            "version": "1.0",
            "parameters": {
              "Region": {
                "builtIn": "AWS::Region",
                "required": false,
                "documentation": "The
 AWS region used to dispatch the request.",
                "type": "String"
              },
              "UseDualStack": {
                "builtIn": "AWS::UseDualStack",
                "required": true,
                "default": false,
```

```
            "documentation": "When true, use the dual-stack endpoint. If the configured endpoint does not support dual-stack, dispatching the request MAY return an error.",
            "type": "Boolean"
        },
        "UseFIPS": {
            "builtIn": "AWS::UseFIPS",
            "required": true,
            "default": false,
            "documentation": "When true, send this request to the FIPS-compliant regional endpoint. If the configured endpoint does not have a FIPS compliant endpoint, dispatching the request will return an error.",

      "type": "Boolean"
        },
        "Endpoint": {
            "builtIn": "SDK::Endpoint",
            "required": false,
            "documentation": "Override the endpoint used to send this request",
            "type": "String"
        }
    },
    "rules": [
        {
            "conditions": [
                {
                    "fn": "isSet",
                    "argv": [
                        {
                            "ref": "Endpoint"
                        }
                    ]
                }
            ],
            "type": "tree",
            "rules": [
                {

                  "conditions": [
                        {
                            "fn": "booleanEquals",
                            "argv": [
                                {
                                    "ref": "UseFIPS"
                                },
                                true
                            ]
                        }
                    ],
                    "error": "Invalid Configuration: FIPS and custom endpoint are not supported",
```

```
        "type": "error"
      },
      {
        "conditions": [],
        "type": "tree",
        "rules": [
          {

       "conditions": [
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                  "fn": "booleanEquals",
                  "argv": [
                    {
                      "ref": "UseDualStack"
                    },
                    true
                  ]
                }
              ],
              "error": "Invalid Configuration: Dualstack and custom endpoint are not supported",
              "type": "error"
            },
            {
              "conditions": [],

 "endpoint": {
                "url": {
                  "ref": "Endpoint"
                },
                "properties": {},
                "headers": {}
              },
              "type": "endpoint"
            }
          ]
        }
      ]
    },
    {
      "conditions": [],
      "type": "tree",
      "rules": [
        {
          "conditions": [
            {
              "fn": "isSet",
```

```
        "argv": [
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                                    "ref": "Region"
                                }
                            ]
                        }
                    ],
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                    "rules": [
                        {
                            "conditions": [
                                {
                                    "fn": "aws.partition",
                                    "argv": [
                                        {
                                            "ref": "Region"
                                        }
                                    ],

"assign": "PartitionResult"
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                            ],
                            "type": "tree",
                            "rules": [
                                {
                                    "conditions": [
                                        {
                                            "fn": "booleanEquals",
                                            "argv": [
                                                {
                                                    "ref": "UseFIPS"
                                                },
                                                true
                                            ]
                                        },

                                 {
                                            "fn": "booleanEquals",
                                            "argv": [
                                                {
                                                    "ref": "UseDualStack"
                                                },
                                                true
                                            ]
                                        }
                                    ],
                                    "type": "tree",
                                    "rules": [
```

```
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                                          "conditions": [
                                            {

                                          "fn": "booleanEquals",
                                              "argv": [
                                                true,
                                                {
                                                  "fn": "getAttr",
                                                  "argv": [
                                                    {
                                                      "ref": "PartitionResult"
                                                    },
                                                    "supportsFIPS"
                                                  ]

}
                                              ]
                                            },
                                            {
                                              "fn": "booleanEquals",
                                              "argv": [
                                                true,
                                                {
                                                  "fn": "getAttr",
                                                  "argv": [
                                                    {
                                                      "ref": "PartitionResult"
                                                    },

                                                   "supportsDualStack"
                                                      ]
                                                  }
                                                ]
                                              }
                                          ],
                                          "type": "tree",
                                          "rules": [
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                                              "conditions": [],
                                              "type": "tree",
                                              "rules": [
                                                {

                                        "conditions": [],
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fips.{Region}.{PartitionResult#dualStackDnsSuffix}",
```

```
                "properties": {},
                "headers": {}
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              "type": "endpoint"
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          ]
        }
      ]

    },
    {
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      "error": "FIPS and DualStack are enabled, but this partition does not support
one or both",
      "type": "error"
    }
  ]
},
{
  "conditions": [
    {
      "fn": "booleanEquals",
      "argv": [
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"ref": "UseFIPS"
        },
        true
      ]
    }
  ],
  "type": "tree",
  "rules": [
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      "conditions": [
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          "argv": [
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{
              "fn": "getAttr",
              "argv": [
                {
                  "ref": "PartitionResult"
                },
                "supportsFIPS"
              ]
```

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                  ]
                }
              ],
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                  "conditions": [],
                  "type": "tree",
                  "rules": [
                    {
                      "conditions": [],
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fips.{Region}.{PartitionResult#dnsSuffix}",
                        "properties": {},
                        "headers": {}

                      },
                      "type": "endpoint"
                    }
                  ]
                }
              ]
            },
            {
              "conditions": [],
              "error": "FIPS is enabled but this partition does not support FIPS",
              "type": "error"
            }
          ]

    },
            {
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                {
                  "fn": "booleanEquals",
                  "argv": [
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                      "ref": "UseDualStack"
                    },
                    true
                  ]
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              "rules": [
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```
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                        {
                          "fn": "getAttr",
                          "argv": [
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                              "ref": "PartitionResult"
                            },
                            "supportsDualStack"
                          ]
                        }
                      ]
                    }
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                  "rules": [
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                      "rules": [
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                          "conditions": [],

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subscriptions.{Region}.{PartitionResult#dualStackDnsSuffix}",
                              "properties": {},
                              "headers": {}
                            },
                            "type": "endpoint"
                        }
                      ]
                    }
                  ]
                },

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                  "error": "DualStack is enabled but this partition does not support DualStack",
                  "type": "error"
                }
              ]
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```

```
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                                    "rules": [
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"https://license-manager-linux-subscriptions.{Region}.{PartitionResult#dnsSuffix}",
                                                "properties": {},
                                                "headers": {}
                                            },
                                            "type": "endpoint"
                                        }
                                    ]
                                }
                            ]
                        }
                    ]
                },
                {
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                    "error": "Invalid Configuration: Missing Region",
                    "type": "error"
                }
            ]
        }
    ]
},
"smithy.rules#endpointTests": {
    "testCases": [
        {
            "documentation": "For region us-east-1 with FIPS enabled and DualStack enabled",
            "expect": {
                "endpoint": {
                    "url": "https://license-manager-linux-subscriptions-fips.us-east-1.api.aws"
                }
            },
            "params": {
                "Region": "us-east-1",
                "UseFIPS": true,
                "UseDualStack": true
            }
        },
        {
            "documentation": "For region us-east-1 with FIPS enabled and DualStack disabled",
            "expect": {
```

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"endpoint": {
                    "url": "https://license-manager-linux-subscriptions-fips.us-east-1.amazonaws.com"
                }
            },
            "params": {
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                "UseFIPS": true,
                "UseDualStack": false
            }
        },
        {
            "documentation": "For region us-east-1 with FIPS disabled and DualStack enabled",
            "expect": {
                "endpoint": {
                    "url": "https://license-manager-linux-subscriptions.us-east-1.api.aws"
                }
            },
            "params": {
                "Region": "us-east-1",
                "UseFIPS": false,
                 "UseDualStack": true
            }
        },
        {
            "documentation": "For region us-east-1 with FIPS disabled and DualStack disabled",
            "expect": {
                "endpoint": {
                    "url": "https://license-manager-linux-subscriptions.us-east-1.amazonaws.com"
                }
            },
            "params": {
                "Region": "us-east-1",
                "UseFIPS": false,
                "UseDualStack": false
            }
        },
        {
            "documentation": "For region cn-north-1 with FIPS enabled and DualStack enabled",
            "expect": {
                "endpoint": {

            "url": "https://license-manager-linux-subscriptions-fips.cn-north-1.api.amazonwebservices.com.cn"
                }
            },
            "params": {
                "Region": "cn-north-1",
                "UseFIPS": true,
                "UseDualStack": true
```

```
      }
    },
    {
      "documentation": "For region cn-north-1 with FIPS enabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-linux-subscriptions-fips.cn-north-1.amazonaws.com.cn"
        }
      },
      "params": {
        "Region": "cn-north-1",
        "UseFIPS": true,
         "UseDualStack": false
      }
    },
    {
      "documentation": "For region cn-north-1 with FIPS disabled and DualStack enabled",
      "expect": {
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        }
      },
      "params": {
        "Region": "cn-north-1",
        "UseFIPS": false,
        "UseDualStack": true
      }
    },
    {
      "documentation": "For region cn-north-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint":
{
          "url": "https://license-manager-linux-subscriptions.cn-north-1.amazonaws.com.cn"
        }
      },
      "params": {
        "Region": "cn-north-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack enabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-linux-subscriptions-fips.us-gov-east-1.api.aws"
        }
```

```
    },
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      "UseFIPS": true,
       "UseDualStack": true
    }
  },
  {
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    "expect": {
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      }
    },
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      "UseDualStack": false
    }
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    "expect": {
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{
        "url": "https://license-manager-linux-subscriptions.us-gov-east-1.api.aws"
      }
    },
    "params": {
      "Region": "us-gov-east-1",
      "UseFIPS": false,
      "UseDualStack": true
    }
  },
  {
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    "expect": {
      "endpoint": {
        "url": "https://license-manager-linux-subscriptions.us-gov-east-1.amazonaws.com"
      }
    },
    "params": {
      "Region": "us-gov-east-1",
      "UseFIPS": false,
       "UseDualStack": false
    }
  },
  {
```

```
      "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack enabled",
      "expect": {
        "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
      },
      "params": {
        "Region": "us-iso-east-1",
        "UseFIPS": true,
        "UseDualStack": true
      }
    },
    {
      "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-linux-subscriptions-fips.us-iso-east-1.c2s.ic.gov"
        }
      },
      "params": {
        "Region": "us-iso-east-1",
        "UseFIPS": true,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack enabled",
      "expect": {
        "error": "DualStack is enabled but this partition does not support DualStack"
      },
      "params": {
        "Region": "us-iso-east-1",
        "UseFIPS": false,
        "UseDualStack": true
      }
    },
    {

"documentation": "For region us-iso-east-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-linux-subscriptions.us-iso-east-1.c2s.ic.gov"
        }
      },
      "params": {
        "Region": "us-iso-east-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
```

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                {
                  "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack enabled",
                  "expect": {
                    "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
                  },
                  "params": {

                   "Region": "us-isob-east-1",
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                    "UseDualStack": true
                  }
                },
                {
                  "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack disabled",
                  "expect": {
                    "endpoint": {
                      "url": "https://license-manager-linux-subscriptions-fips.us-isob-east-1.sc2s.sgov.gov"
                    }
                  },
                  "params": {
                    "Region": "us-isob-east-1",
                    "UseFIPS": true,
                    "UseDualStack": false
                  }
                },
                {
                  "documentation": "For region us-isob-east-1 with FIPS disabled
and DualStack enabled",
                  "expect": {
                    "error": "DualStack is enabled but this partition does not support DualStack"
                  },
                  "params": {
                    "Region": "us-isob-east-1",
                    "UseFIPS": false,
                    "UseDualStack": true
                  }
                },
                {
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                  "expect": {
                    "endpoint": {
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                    }
                  },
                  "params": {
                    "Region": "us-isob-east-1",
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```
        "UseFIPS": false,
                    "UseDualStack": false
                }
            },
            {
                "documentation": "For custom endpoint with region set and fips disabled and dualstack disabled",
                "expect": {
                    "endpoint": {
                        "url": "https://example.com"
                    }
                },
                "params": {
                    "Region": "us-east-1",
                    "UseFIPS": false,
                    "UseDualStack": false,
                    "Endpoint": "https://example.com"
                }
            },
            {
                "documentation": "For custom endpoint with region not set and fips disabled and dualstack
disabled",

          "expect": {
                    "endpoint": {
                        "url": "https://example.com"
                    }
                },
                "params": {
                    "UseFIPS": false,
                    "UseDualStack": false,
                    "Endpoint": "https://example.com"
                }
            },
            {
                "documentation": "For custom endpoint with fips enabled and dualstack disabled",
                "expect": {
                    "error": "Invalid Configuration: FIPS and custom endpoint are not supported"
                },
                "params": {
                    "Region": "us-east-1",
                    "UseFIPS": true,
                    "UseDualStack": false,

            "Endpoint": "https://example.com"
                    }
            },
            {
                "documentation": "For custom endpoint with fips disabled and dualstack enabled",
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                    "expect": {
                      "error": "Invalid Configuration: Dualstack and custom endpoint are not supported"
                    },
                    "params": {
                      "Region": "us-east-1",
                      "UseFIPS": false,
                      "UseDualStack": true,
                      "Endpoint": "https://example.com"
                    }
                  },
                  {
                    "documentation": "Missing region",
                    "expect": {
                      "error": "Invalid Configuration: Missing Region"
                    }

          }
              ],
              "version": "1.0"
           }
         }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscovery": {
        "type": "string",
        "traits": {
          "smithy.api#enum": [
            {
              "name": "Enabled",
              "value": "Enabled",
              "documentation": "Enabled LinuxSubscriptionsDiscovery"
            },
            {
              "name": "Disabled",
              "value": "Disabled",
              "documentation": "Disabled LinuxSubscriptionsDiscovery"
            }
          ]
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscoverySettings": {
        "type": "structure",
        "members": {
          "SourceRegions": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringList",
             "traits": {
               "smithy.api#documentation": "<p>The Regions in which to discover data for Linux
subscriptions.</p>",
               "smithy.api#required": {}
```

```
            }
          },
          "OrganizationIntegration": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#OrganizationIntegration",
            "traits": {
              "smithy.api#documentation": "<p>Details if you have enabled resource discovery across your
accounts in Organizations.</p>",
              "smithy.api#required": {}
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Lists the settings defined for discovering Linux subscriptions.</p>"
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstances": {
        "type":
 "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstancesRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstancesResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Lists the running Amazon EC2 instances that were discovered with
commercial Linux\n      subscriptions.</p>",
          "smithy.api#http": {

       "code": 200,
            "method": "POST",
            "uri": "/subscription/ListLinuxSubscriptionInstances"
          },
          "smithy.api#idempotent": {},
          "smithy.api#paginated": {
            "inputToken": "NextToken",
            "outputToken": "NextToken",
```

```
            "pageSize": "MaxResults",
            "items": "Instances"
          }
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstancesRequest": {
        "type": "structure",
        "members": {
          "Filters": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#FilterList",
            "traits": {
              "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those that match one or\n      more sets of key-value pairs that you specify. For example, you can filter by the name of\n      <code>AmiID</code> with an optional operator to see subscriptions that match, partially\n match, or don't match a certain Amazon Machine Image (AMI) ID.</p>\n      <p>The valid names for this filter are:</p>\n      <ul>\n      <li>\n      <p>\n      <code>AmiID</code>\n      </p>\n      </li>\n      <li>\n      <p>\n      <code>InstanceID</code>\n      </p>\n      </li>\n      <li>\n      <p>\n      <code>AccountID</code>\n      </p>\n      </li>\n      <li>\n      <p>\n      <code>Status</code>\n      </p>\n      </li>\n      <li>\n      <p>\n      <code>Region</code>\n      </p>\n      </li>\n      <li>\n      <p>\n      <code>UsageOperation</code>\n      </p>\n      </li>\n      <li>\n      <p>\n      <code>ProductCode</code>\n      </p>\n      </li>\n      <li>\n      <p>\n      <code>InstanceType</code>\n      </p>\n      </li>\n      </ul>\n      <p>The valid Operators for this filter are:</p>\n      <ul>\n      <li>\n      <p>\n      <code>contains</code>\n      </p>\n      </li>\n      <li>\n      <p>\n      <code>equals</code>\n      </p>\n      </li>\n      <li>\n      <p>\n      <code>Notequal</code>\n      </p>\n      </li>\n      </ul>"
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#BoxInteger",
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"

    }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>",
              "smithy.api#length": {
                "min": 1,
                "max": 16384
              }
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "NextToken length limit is half of ddb accepted limit.\nIncrease this limit if
```

```
parameters in request increases."
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstancesResponse": {
        "type": "structure",
        "members": {
          "Instances": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InstanceList",
            "traits": {
              "smithy.api#documentation":
"<p>An array that contains instance objects.</p>"
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptions": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionsRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionsResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Lists the Linux subscriptions that have been discovered. If you have
linked your\n      organization, the returned results will include data aggregated across your accounts in\n
Organizations.</p>",
          "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/subscription/ListLinuxSubscriptions"
```

```
        },
        "smithy.api#idempotent": {},
        "smithy.api#paginated": {
          "inputToken": "NextToken",
          "outputToken": "NextToken",
          "pageSize": "MaxResults",
          "items": "Subscriptions"
        }

      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionsRequest": {
      "type": "structure",
      "members": {
        "Filters": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#FilterList",
          "traits": {
            "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those that match one or\n      more sets of key-value pairs that you specify. For example, you can filter by the name of\n      <code>Subscription</code> with an optional operator to see subscriptions that match,\n      partially match, or don't match a certain subscription's name.</p>\n      <p>The valid names for this filter are:</p>\n      <ul>\n      <li>\n      <p>\n      <code>Subscription</code>\n      </p>\n      </li>\n      </ul>\n      <p>The valid Operators for this filter are:</p>\n      <ul>\n      <li>\n      <p>\n      <code>contains</code>\n      </p>\n      </li>\n      <li>\n      <p>\n      <code>equals</code>\n      </p>\n      </li>\n      <li>\n      <p>\n      <code>Notequal</code>\n      </p>\n      </li>\n      </ul>"
          }
        },
        "MaxResults": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#BoxInteger",
          "traits": {
            "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
          }
        },
        "NextToken": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>Token for the next set of results.</p>",
            "smithy.api#length": {

              "min": 1,
              "max": 16384
            }
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "NextToken length limit is half of ddb accepted limit.\nIncrease this limit if
```

```
parameters in request increases."
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionsResponse": {
        "type": "structure",
        "members": {
          "Subscriptions": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionList",
            "traits": {
              "smithy.api#documentation": "<p>An array that contains subscription objects.</p>"
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for
 the next set of results.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#Operator": {
        "type": "string",
        "traits": {
          "smithy.api#enum": [
            {
              "name": "EQUAL",
              "value": "Equal",
              "documentation": "Equal operator"
            },
            {
              "name": "NOT_EQUAL",
              "value": "NotEqual",
              "documentation": "Not equal operator"
            },
            {
              "name": "CONTAINS",
              "value": "Contains",
              "documentation": "Contains operator"
            }
          ],
          "smithy.api#length": {
            "min": 1,
            "max": 20
          }
        }
      },
```

```
"com.amazonaws.licensemanagerlinuxsubscriptions#OrganizationIntegration": {
      "type": "string",
      "traits": {
         "smithy.api#enum": [
            {
               "name": "Enabled",
               "value": "Enabled",
               "documentation": "Enabled OrganizationIntegration"
            },
            {
               "name": "Disabled",
               "value": "Disabled",
               "documentation": "Disabled OrganizationIntegration"
            }
         ]
      }
   },
   "com.amazonaws.licensemanagerlinuxsubscriptions#ProductCodeList": {
      "type": "list",
      "member": {
         "target": "smithy.api#String"
      }
   },
   "com.amazonaws.licensemanagerlinuxsubscriptions#Status": {
      "type": "string",
      "traits": {
         "smithy.api#enum": [

  {
               "name": "InProgress",
               "value": "InProgress",
               "documentation": "InProgress status"
            },
            {
               "name": "Completed",
               "value": "Completed",
               "documentation": "Completed status"
            },
            {
               "name": "Successful",
               "value": "Successful",
               "documentation": "Successful status"
            },
            {
               "name": "Failed",
               "value": "Failed",
               "documentation": "Failed status"
            }
```

```
            ]
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#StringList": {
        "type": "list",
        "member": {
            "target": "smithy.api#String",
            "traits":
{
                "smithy.api#length": {
                    "min": 1,
                    "max": 100
                }
            }
        },
        "traits": {
            "smithy.api#length": {
                "min": 1,
                "max": 100
            },
            "smithy.api#uniqueItems": {}
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#StringMap": {
        "type": "map",
        "key": {
            "target": "smithy.api#String"
        },
        "value": {
            "target": "smithy.api#String"
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#Subscription": {
        "type": "structure",
        "members": {
            "Name": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The name of the subscription.</p>"

        }
            },
            "Type": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The type of subscription. The type can be subscription-included
with Amazon EC2, Bring Your Own\n      Subscription model (BYOS), or from the Amazon Web Services
Marketplace. Certain subscriptions may use licensing from the\n      Amazon Web Services Marketplace as well as
```

```
OS licensing from Amazon EC2 or BYOS.</p>"
                }
            },
            "InstanceCount": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#BoxLong",
                "traits": {
                    "smithy.api#documentation": "<p>The total amount of running instances using this subscription.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>An object which details a discovered Linux
subscription.</p>"
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionList": {
        "type": "list",
        "member": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Subscription"
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException": {
        "type": "structure",
        "members": {
            "message": {
                "target": "smithy.api#String"
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>The request was denied due to request throttling.</p>",
            "smithy.api#error": "client"
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettings": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettingsRequest"
        },

    "output": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettingsResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
            },
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
```

```
            },
            {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Updates the service settings for Linux subscriptions.</p>",
            "smithy.api#http": {
               "code": 200,
               "method": "POST",
               "uri": "/subscription/UpdateServiceSettings"
            },
            "smithy.api#idempotent": {}
         }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettingsRequest":
{
         "type": "structure",
         "members": {
            "LinuxSubscriptionsDiscovery": {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscovery",
               "traits": {
                  "smithy.api#documentation": "<p>Describes if the discovery of Linux subscriptions is enabled.</p>",
                  "smithy.api#required": {}
               }
            },
            "LinuxSubscriptionsDiscoverySettings": {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscoverySettings",
               "traits": {
                  "smithy.api#documentation": "<p>The settings defined for Linux subscriptions discovery. The
settings include if Organizations\n      integration has been enabled, and which Regions data will be aggregated
from.</p>",

  "smithy.api#required": {}
               }
            },
            "AllowUpdate": {
               "target": "smithy.api#Boolean",
               "traits": {
                  "smithy.api#documentation": "<p>Describes if updates are allowed to the service settings for Linux
subscriptions. If you\n      allow updates, you can aggregate Linux subscription data in more than one home
Region.</p>"
               }
            }
         }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettingsResponse": {
         "type": "structure",
```

```
        "members": {
            "LinuxSubscriptionsDiscovery": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscovery",
                "traits": {
                    "smithy.api#documentation": "<p>Lists if discovery has been enabled for Linux subscriptions.</p>"
                }
            },

            "LinuxSubscriptionsDiscoverySettings": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscoverySettings",
                "traits": {
                    "smithy.api#documentation": "<p>The settings defined for Linux subscriptions discovery. The
settings include if Organizations\n      integration has been enabled, and which Regions data will be aggregated
from.</p>"
                }
            },
            "Status": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Status",
                "traits": {
                    "smithy.api#documentation": "<p>Indicates the status of Linux subscriptions settings being
applied.</p>"
                }
            },
            "StatusMessage": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringMap",
                "traits": {
                    "smithy.api#documentation":
 "<p>A message which details the Linux subscriptions service settings current status.</p>"
                }
            },
            "HomeRegions": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringList",
                "traits": {
                    "smithy.api#documentation": "<p>The Region in which License Manager displays the aggregated
data for Linux\n      subscriptions.</p>"
                }
            }
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException": {
        "type": "structure",
        "members": {
            "message": {
                "target": "smithy.api#String"
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>The provided input is not valid. Try your request again.</p>",
```

```
            "smithy.api#error": "client"
          }
        }
      }
    }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/aws/signer/v4"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Lists the licenses for your account.
func (c *Client) ListLicenses(ctx context.Context, params *ListLicensesInput, optFns ...func(*Options))
(*ListLicensesOutput, error) {
 if params == nil {
  params = &ListLicensesInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "ListLicenses", params, optFns,
c.addOperationListLicensesMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*ListLicensesOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type ListLicensesInput struct {

 // Filters to scope the results. The following filters are supported:
 //   - Beneficiary
 //   - ProductSKU
 //   - Fingerprint
 //
   - Status
 Filters []types.Filter

 // Amazon Resource Names (ARNs) of the licenses.
```

```
 LicenseArns []string

 // Maximum number of results to return in a single call.
 MaxResults *int32

 // Token for the next set of results.
 NextToken *string

 noSmithyDocumentSerde
}

type ListLicensesOutput struct {

 // License details.
 Licenses []types.License

 // Token for the next set of results.
 NextToken *string

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationListLicensesMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpListLicenses{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpListLicenses{}, middleware.After)
 if err != nil {
  return err
 }
 if
 err := addProtocolFinalizerMiddlewares(stack, options, "ListLicenses"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
```

```
 if err = awsmiddleware.AddClientRequestIDMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddComputeContentLengthMiddleware(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = v4.AddComputePayloadSHA256Middleware(stack); err != nil {
  return err
 }
 if err = addRetryMiddlewares(stack, options); err != nil {
  return err
 }
 if err = awsmiddleware.AddRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = awsmiddleware.AddRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack);
 err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opListLicenses(options.Region), middleware.Before);
err != nil {
  return err
 }
 if err = awsmiddleware.AddRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
```

```
 return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opListLicenses(region string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:
     ServiceID,
  OperationName: "ListLicenses",
 }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package grafana

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/aws/signer/v4"
 "github.com/aws/aws-sdk-go-v2/service/grafana/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Removes the Grafana Enterprise license from a workspace.
func (c *Client) DisassociateLicense(ctx context.Context, params *DisassociateLicenseInput, optFns
...func(*Options)) (*DisassociateLicenseOutput, error) {
 if params == nil {
  params = &DisassociateLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "DisassociateLicense", params, optFns,
c.addOperationDisassociateLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*DisassociateLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}
```

```
type DisassociateLicenseInput struct {

 // The type of license to remove from the workspace.
 //
 //
 This member is required.
 LicenseType types.LicenseType

 // The ID of the workspace to remove the Grafana Enterprise license from.
 //
 // This member is required.
 WorkspaceId *string

 noSmithyDocumentSerde
}

type DisassociateLicenseOutput struct {

 // A structure containing information about the workspace.
 //
 // This member is required.
 Workspace *types.WorkspaceDescription

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationDisassociateLicenseMiddlewares(stack *middleware.Stack, options Options) (err
error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsRestjson1_serializeOpDisassociateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsRestjson1_deserializeOpDisassociateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack,
 options, "DisassociateLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
```

```
 return err
}
if err = addSetLoggerMiddleware(stack, options); err != nil {
 return err
}
if err = awsmiddleware.AddClientRequestIDMiddleware(stack); err != nil {
 return err
}
if err = smithyhttp.AddComputeContentLengthMiddleware(stack); err != nil {
 return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
 return err
}
if err = v4.AddComputePayloadSHA256Middleware(stack); err != nil {
 return err
}
if err = addRetryMiddlewares(stack, options); err != nil {
 return err
}
if err = awsmiddleware.AddRawResponseToMetadata(stack); err != nil {
 return err
}
if err = awsmiddleware.AddRecordResponseTiming(stack); err != nil {
 return err
}
if err = addClientUserAgent(stack, options); err != nil {
 return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack);
err != nil {
 return err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
 return err
}
if err = addOpDisassociateLicenseValidationMiddleware(stack); err != nil {
 return err
}
if err = stack.Initialize.Add(newServiceMetadataMiddleware_opDisassociateLicense(options.Region),
middleware.Before); err != nil {
 return err
}
if err = awsmiddleware.AddRecursionDetection(stack); err != nil {
 return err
```

```
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opDisassociateLicense(region string)
*awsmiddleware.RegisterServiceMetadata
 {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:    ServiceID,
  OperationName: "DisassociateLicense",
 }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/aws/signer/v4"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Checks out the specified license. If the account that created the license is
// the same that is performing the check out, you must specify the account as the
// beneficiary.
func (c *Client) CheckoutLicense(ctx context.Context, params *CheckoutLicenseInput, optFns ...func(*Options))
(*CheckoutLicenseOutput, error) {
 if params == nil {
  params = &CheckoutLicenseInput{}
 }
```

```
 result, metadata, err := c.invokeOperation(ctx, "CheckoutLicense", params, optFns,
c.addOperationCheckoutLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*CheckoutLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type
 CheckoutLicenseInput struct {

 // Checkout type.
 //
 // This member is required.
 CheckoutType types.CheckoutType

 // Unique, case-sensitive identifier that you provide to ensure the idempotency of
 // the request.
 //
 // This member is required.
 ClientToken *string

 // License entitlements.
 //
 // This member is required.
 Entitlements []types.EntitlementData

 // Key fingerprint identifying the license.
 //
 // This member is required.
 KeyFingerprint *string

 // Product SKU.
 //
 // This member is required.
 ProductSKU *string

 // License beneficiary.
 Beneficiary *string

 // Node ID.
 NodeId *string

 noSmithyDocumentSerde
}
```

```
type CheckoutLicenseOutput struct {

 // Checkout type.
 CheckoutType types.CheckoutType

 // Allowed license entitlements.
 EntitlementsAllowed []types.EntitlementData

 // Date and time at which the license checkout expires.
 Expiration *string

 // Date and time at which the license checkout is issued.
 IssuedAt *string

 // Amazon Resource
 Name (ARN) of the checkout license.
 LicenseArn *string

 // License consumption token.
 LicenseConsumptionToken *string

 // Node ID.
 NodeId *string

 // Signed token.
 SignedToken *string

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationCheckoutLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpCheckoutLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpCheckoutLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "CheckoutLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
```

```
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil
 {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = awsmiddleware.AddClientRequestIDMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddComputeContentLengthMiddleware(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = v4.AddComputePayloadSHA256Middleware(stack); err != nil {
  return err
 }
 if err = addRetryMiddlewares(stack, options); err != nil {
  return err
 }
 if err = awsmiddleware.AddRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = awsmiddleware.AddRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack);
 err != nil {
  return err
 }
 if err = addOpCheckoutLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opCheckoutLicense(options.Region),
middleware.Before); err != nil {
```

```
 return err
 }
 if err = awsmiddleware.AddRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opCheckoutLicense(region string) *awsmiddleware.RegisterServiceMetadata
{
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName: "CheckoutLicense",
 }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/aws/signer/v4"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Checks out the specified license for offline use.
func (c *Client) CheckoutBorrowLicense(ctx context.Context, params *CheckoutBorrowLicenseInput, optFns
...func(*Options)) (*CheckoutBorrowLicenseOutput, error) {
 if params == nil {
  params = &CheckoutBorrowLicenseInput{}
 }
```

```
 result, metadata, err := c.invokeOperation(ctx, "CheckoutBorrowLicense", params, optFns,
c.addOperationCheckoutBorrowLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*CheckoutBorrowLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type CheckoutBorrowLicenseInput struct {

 // Unique, case-sensitive identifier
 that you provide to ensure the idempotency of
 // the request.
 //
 // This member is required.
 ClientToken *string

 // Digital signature method. The possible value is JSON Web Signature (JWS)
 // algorithm PS384. For more information, see RFC 7518 Digital Signature with
 // RSASSA-PSS (https://tools.ietf.org/html/rfc7518#section-3.5) .
 //
 // This member is required.
 DigitalSignatureMethod types.DigitalSignatureMethod

 // License entitlements. Partial checkouts are not supported.
 //
 // This member is required.
 Entitlements []types.EntitlementData

 // Amazon Resource Name (ARN) of the license. The license must use the borrow
 // consumption configuration.
 //
 // This member is required.
 LicenseArn *string

 // Information about constraints.
 CheckoutMetadata []types.Metadata

 // Node ID.
 NodeId *string

 noSmithyDocumentSerde
}
```

```
type CheckoutBorrowLicenseOutput struct {

 // Information about constraints.
 CheckoutMetadata []types.Metadata

 // Allowed license entitlements.
 EntitlementsAllowed
 []types.EntitlementData

 // Date and time at which the license checkout expires.
 Expiration *string

 // Date and time at which the license checkout is issued.
 IssuedAt *string

 // Amazon Resource Name (ARN) of the license.
 LicenseArn *string

 // License consumption token.
 LicenseConsumptionToken *string

 // Node ID.
 NodeId *string

 // Signed token.
 SignedToken *string

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationCheckoutBorrowLicenseMiddlewares(stack *middleware.Stack, options Options) (err
error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpCheckoutBorrowLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpCheckoutBorrowLicense{}, middleware.After)
 if err != nil {
  return
 err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "CheckoutBorrowLicense"); err != nil {
```

```
 return fmt.Errorf("add protocol finalizers: %v", err)
}

if err = addlegacyEndpointContextSetter(stack, options); err != nil {
 return err
}
if err = addSetLoggerMiddleware(stack, options); err != nil {
 return err
}
if err = awsmiddleware.AddClientRequestIDMiddleware(stack); err != nil {
 return err
}
if err = smithyhttp.AddComputeContentLengthMiddleware(stack); err != nil {
 return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
 return err
}
if err = v4.AddComputePayloadSHA256Middleware(stack); err != nil {
 return err
}
if err = addRetryMiddlewares(stack, options); err != nil {
 return err
}
if err = awsmiddleware.AddRawResponseToMetadata(stack); err != nil {
 return err
}
if err = awsmiddleware.AddRecordResponseTiming(stack); err != nil {
 return err
}
if err = addClientUserAgent(stack, options); err != nil {
 return
err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
 return err
}
if err = addOpCheckoutBorrowLicenseValidationMiddleware(stack); err != nil {
 return err
}
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opCheckoutBorrowLicense(options.Region),
middleware.Before); err != nil {
```

```
 return err
 }
 if err = awsmiddleware.AddRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opCheckoutBorrowLicense(region
 string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName: "CheckoutBorrowLicense",
 }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/aws/signer/v4"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Creates a license.
func (c *Client) CreateLicense(ctx context.Context, params *CreateLicenseInput, optFns ...func(*Options))
(*CreateLicenseOutput, error) {
 if params == nil {
  params = &CreateLicenseInput{}
 }
```

```
 result, metadata, err := c.invokeOperation(ctx, "CreateLicense", params, optFns,
c.addOperationCreateLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*CreateLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type CreateLicenseInput struct {

 // License beneficiary.
 //
 // This member is required.
 Beneficiary *string

 // Unique, case-sensitive identifier that you provide
 to ensure the idempotency of
 // the request.
 //
 // This member is required.
 ClientToken *string

 // Configuration for consumption of the license. Choose a provisional
 // configuration for workloads running with continuous connectivity. Choose a
 // borrow configuration for workloads with offline usage.
 //
 // This member is required.
 ConsumptionConfiguration *types.ConsumptionConfiguration

 // License entitlements.
 //
 // This member is required.
 Entitlements []types.Entitlement

 // Home Region for the license.
 //
 // This member is required.
 HomeRegion *string

 // License issuer.
 //
 // This member is required.
 Issuer *types.Issuer
```

```
 // License name.
 //
 // This member is required.
 LicenseName *string

 // Product name.
 //
 // This member is required.
 ProductName *string

 // Product SKU.
 //
 // This member is required.
 ProductSKU *string

 // Date and time range during which the license is valid, in ISO8601-UTC format.
 //
 // This member is required.
 Validity
 *types.DatetimeRange

 // Information about the license.
 LicenseMetadata []types.Metadata

 noSmithyDocumentSerde
}

type CreateLicenseOutput struct {

 // Amazon Resource Name (ARN) of the license.
 LicenseArn *string

 // License status.
 Status types.LicenseStatus

 // License version.
 Version *string

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationCreateLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
```

```
err = stack.Serialize.Add(&awsAwsjson11_serializeOpCreateLicense{}, middleware.After)
if err != nil {
 return err
}
err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpCreateLicense{}, middleware.After)
if err != nil {
 return err
}
if err := addProtocolFinalizerMiddlewares(stack, options, "CreateLicense"); err != nil {
 return fmt.Errorf("add
protocol finalizers: %v", err)
}

if err = addlegacyEndpointContextSetter(stack, options); err != nil {
 return err
}
if err = addSetLoggerMiddleware(stack, options); err != nil {
 return err
}
if err = awsmiddleware.AddClientRequestIDMiddleware(stack); err != nil {
 return err
}
if err = smithyhttp.AddComputeContentLengthMiddleware(stack); err != nil {
 return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
 return err
}
if err = v4.AddComputePayloadSHA256Middleware(stack); err != nil {
 return err
}
if err = addRetryMiddlewares(stack, options); err != nil {
 return err
}
if err = awsmiddleware.AddRawResponseToMetadata(stack); err != nil {
 return err
}
if err = awsmiddleware.AddRecordResponseTiming(stack); err != nil {
 return err
}
if err = addClientUserAgent(stack, options); err != nil {
 return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack);
```

```
 err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addOpCreateLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opCreateLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = awsmiddleware.AddRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opCreateLicense(region string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:    ServiceID,
  OperationName:
 "CreateLicense",
 }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/aws/signer/v4"
```

```
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Gets detailed information about the specified license.
func (c *Client) GetLicense(ctx context.Context, params *GetLicenseInput, optFns ...func(*Options))
(*GetLicenseOutput, error) {
 if params == nil {
  params = &GetLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "GetLicense", params, optFns,
c.addOperationGetLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*GetLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type GetLicenseInput struct {

 // Amazon Resource Name (ARN) of the license.
 //
 // This member is required.
 LicenseArn *string

 // License version.
 Version
 *string

 noSmithyDocumentSerde
}

type GetLicenseOutput struct {

 // License details.
 License *types.License

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}
```

```
func (c *Client) addOperationGetLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpGetLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpGetLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "GetLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return
 err
 }
 if err = awsmiddleware.AddClientRequestIDMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddComputeContentLengthMiddleware(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = v4.AddComputePayloadSHA256Middleware(stack); err != nil {
  return err
 }
 if err = addRetryMiddlewares(stack, options); err != nil {
  return err
 }
 if err = awsmiddleware.AddRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = awsmiddleware.AddRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
```

```
 return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
 return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
 return err
 }
 if err = addOpGetLicenseValidationMiddleware(stack);
 err != nil {
 return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opGetLicense(options.Region), middleware.Before);
err != nil {
 return err
 }
 if err = awsmiddleware.AddRecursionDetection(stack); err != nil {
 return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
 return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
 return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
 return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
 return err
 }
 return nil
}

func newServiceMetadataMiddleware_opGetLicense(region string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:    ServiceID,
  OperationName: "GetLicense",
 }
}
```

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(INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE
OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/aws/signer/v4"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Lists received licenses.
func (c *Client) ListReceivedLicenses(ctx context.Context, params *ListReceivedLicensesInput, optFns
...func(*Options)) (*ListReceivedLicensesOutput, error) {
 if params == nil {
  params = &ListReceivedLicensesInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "ListReceivedLicenses", params, optFns,
c.addOperationListReceivedLicensesMiddlewares)
 if err != nil {
  return nil, err
 }

```
 out := result.(*ListReceivedLicensesOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type ListReceivedLicensesInput struct {

 // Filters to scope the results. The following filters are supported:
 //
   - ProductSKU
 //   - Status
 //   - Fingerprint
 //   - IssuerName
 //   - Beneficiary
 Filters []types.Filter

 // Amazon Resource Names (ARNs) of the licenses.
 LicenseArns []string

 // Maximum number of results to return in a single call.
 MaxResults *int32

 // Token for the next set of results.
 NextToken *string

 noSmithyDocumentSerde
}

type ListReceivedLicensesOutput struct {

 // Received license details.
 Licenses []types.GrantedLicense

 // Token for the next set of results.
 NextToken *string

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationListReceivedLicensesMiddlewares(stack *middleware.Stack, options Options) (err
error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpListReceivedLicenses{}, middleware.After)
```

```
if err != nil {
 return err
}
err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpListReceivedLicenses{},
middleware.After)
if err != nil {
 return err
}
if err := addProtocolFinalizerMiddlewares(stack, options, "ListReceivedLicenses"); err != nil {
 return fmt.Errorf("add protocol finalizers: %v", err)
}

if err = addlegacyEndpointContextSetter(stack, options); err != nil {
 return err
}
if err = addSetLoggerMiddleware(stack, options); err != nil {
 return err
}
if err = awsmiddleware.AddClientRequestIDMiddleware(stack); err != nil {
 return err
}
if err = smithyhttp.AddComputeContentLengthMiddleware(stack); err != nil {
 return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
 return err
}
if err = v4.AddComputePayloadSHA256Middleware(stack); err != nil {
 return err
}
if err = addRetryMiddlewares(stack, options); err != nil {
 return err
}
if err = awsmiddleware.AddRawResponseToMetadata(stack); err != nil {
 return err
}
if err = awsmiddleware.AddRecordResponseTiming(stack);
err != nil {
 return err
}
if err = addClientUserAgent(stack, options); err != nil {
 return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
 return err
```

```
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opListReceivedLicenses(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = awsmiddleware.AddRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opListReceivedLicenses(region
 string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:    ServiceID,
  OperationName: "ListReceivedLicenses",
 }
}
```

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otherwise, or (ii) ownership of fifty percent (50%) or more of the
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of such entity.

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```
{
  "smithy": "2.0",
  "shapes": {
    "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException": {
      "type": "structure",
      "members": {
        "message": {
          "target": "smithy.api#String"
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>You don't have sufficient access to perform this action.</p>",
        "smithy.api#error": "client"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ActiveDirectoryIdentityProvider": {
      "type": "structure",
      "members": {
        "DirectoryId": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The directory ID for an Active Directory identity provider.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#documentation":
"<p>Details about an Active Directory identity provider.</p>"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#AssociateUser": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#AssociateUserRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#AssociateUserResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
        },
        {
```

```
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Associates the user to an EC2 instance to utilize user-based subscriptions.</p>\n        <note>\n          <p>Your estimated bill for charges on the number of users and related costs will take 48\n        hours to appear for billing periods that haven't closed (marked as <b>Pending</b> billing status) in Amazon Web Services Billing. For more information, see <a href=\"https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/invoice.html\">Viewing your\n        monthly charges</a> in the <i>Amazon Web Services Billing User Guide</i>.</p>\n        </note>",
          "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/user/AssociateUser"
          },
          "smithy.api#idempotent": {}
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#AssociateUserRequest": {
        "type": "structure",
        "members": {
          "Username": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The user name from the identity provider for the user.</p>",
              "smithy.api#required": {}
            }
          },
          "InstanceId": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The ID of the
```

```
EC2 instance, which provides user-based subscriptions.</p>",
                    "smithy.api#required": {}
                }
            },
            "IdentityProvider": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
                "traits": {
                    "smithy.api#documentation": "<p>The identity provider of the user.</p>",
                    "smithy.api#required": {}
                }
            },
            "Domain": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The domain name of the user.</p>"
                }
            }
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#AssociateUserResponse": {
        "type": "structure",
        "members": {
            "InstanceUserSummary": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummary",
                 "traits": {
                    "smithy.api#documentation": "<p>Metadata that describes the associate user operation.</p>",
                    "smithy.api#required": {}
                }
            }
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#BoxInteger": {
        "type": "integer"
    },
    "com.amazonaws.licensemanagerusersubscriptions#ConflictException": {
        "type": "structure",
        "members": {
            "message": {
                "target": "smithy.api#String"
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>The request couldn't be completed because it conflicted with the current
state of the\n      resource.</p>",
            "smithy.api#error": "server"
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProvider":
```

```
{
        "type": "operation",
        "input": {
           "target": "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProviderRequest"
        },
        "output": {
           "target": "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProviderResponse"
        },
        "errors": [
           {
              "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
           },
           {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
           },
           {
              "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
           },
           {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
           },
           {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
            },
           {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
           },
           {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
           }
        ],
        "traits": {
           "smithy.api#documentation": "<p>Deregisters the identity provider from providing user-based
subscriptions.</p>",
           "smithy.api#http": {
              "code": 200,
              "method": "POST",
              "uri": "/identity-provider/DeregisterIdentityProvider"
           },
           "smithy.api#idempotent": {}
        }
     },
     "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProviderRequest": {
        "type": "structure",
        "members": {
           "IdentityProvider": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
```

```
            "traits": {
              "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
              "smithy.api#required": {}
            }
          },
          "Product": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
              "smithy.api#required": {}
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProviderResponse": {
        "type": "structure",
        "members": {
          "IdentityProviderSummary": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary",
            "traits": {
              "smithy.api#documentation":
"<p>Metadata that describes the results of an identity provider operation.</p>",
              "smithy.api#required": {}
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#DisassociateUser": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#DisassociateUserRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#DisassociateUserResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
          },
```

```
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Disassociates the user from an EC2 instance providing user-based
subscriptions.</p>",
            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/user/DisassociateUser"
            },
            "smithy.api#idempotent": {}
        }

 },
    "com.amazonaws.licensemanagerusersubscriptions#DisassociateUserRequest": {
        "type": "structure",
        "members": {
            "Username": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The user name from the identity provider for the user.</p>",
                    "smithy.api#required": {}
                }
            },
            "InstanceId": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The ID of the EC2 instance, which provides user-based
subscriptions.</p>",
                    "smithy.api#required": {}
                }
            },
            "IdentityProvider": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
                "traits": {
                    "smithy.api#documentation":
 "<p>An object that specifies details for the identity provider.</p>",
                    "smithy.api#required": {}
                }
            },
```

```
            "Domain": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The domain name of the user.</p>"
               }
            }
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#DisassociateUserResponse": {
         "type": "structure",
         "members": {
            "InstanceUserSummary": {
               "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummary",
               "traits": {
                  "smithy.api#documentation": "<p>Metadata that describes the associate user operation.</p>",
                  "smithy.api#required": {}
               }
            }
         }
      },

   "com.amazonaws.licensemanagerusersubscriptions#Filter": {
         "type": "structure",
         "members": {
            "Attribute": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The name of an attribute to use as a filter.</p>"
               }
            },
            "Operation": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The type of search (For example, eq, geq, leq)</p>"
               }
            },
            "Value": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>Value of the filter.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#documentation": "<p>A filter name and value pair that is used
    to return more specific results from a describe\n      operation. Filters can be used to match a set of resources by
    specific criteria, such as tags,\n      attributes, or IDs.</p>"
         }
```

```
    },
    "com.amazonaws.licensemanagerusersubscriptions#FilterList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#Filter"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider": {
      "type": "union",
      "members": {
        "ActiveDirectoryIdentityProvider": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ActiveDirectoryIdentityProvider",
          "traits": {
            "smithy.api#documentation": "<p>An object that details an Active Directory identity provider.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#documentation":
"<p>Details about an identity provider.</p>"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary": {
      "type": "structure",
      "members": {
        "IdentityProvider": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
          "traits": {
            "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
            "smithy.api#required": {}
          }
        },
        "Settings": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#Settings",
          "traits": {
            "smithy.api#documentation": "<p>An object that details the registered identity providers product
related configuration\n      settings such as the subnets to provision VPC endpoints.</p>",
            "smithy.api#required":
{}
          }
        },
        "Product": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
            "smithy.api#required": {}
          }
        },
```

```
            "Status": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The status of an identity provider.</p>",
                  "smithy.api#required": {}
               }
            },
            "FailureMessage": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The failure message associated with an identity provider.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#documentation":
 "<p>Describes an identity provider.</p>"
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummaryList": {
         "type": "list",
         "member": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary"
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#InstanceSummary": {
         "type": "structure",
         "members": {
            "InstanceId": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The ID of the EC2 instance, which provides user-based
 subscriptions.</p>",
                  "smithy.api#required": {}
               }
            },
            "Status": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The status
  of an EC2 instance resource.</p>",
                  "smithy.api#required": {}
               }
            },
            "Products": {
               "target": "com.amazonaws.licensemanagerusersubscriptions#StringList",
               "traits": {
                  "smithy.api#documentation": "<p>A list of provided user-based subscription products.</p>",
```

```
                "smithy.api#required": {}
              }
            },
            "LastStatusCheckDate": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The date of the last status check.</p>"
              }
            },
            "StatusMessage": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The status message for an EC2 instance.</p>"
              }

        }
          },
          "traits": {
            "smithy.api#documentation": "<p>Describes an EC2 instance providing user-based subscriptions.</p>"
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#InstanceSummaryList": {
          "type": "list",
          "member": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceSummary"
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummary": {
          "type": "structure",
          "members": {
            "Username": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The user name from the identity provider for the user.</p>",
                "smithy.api#required": {}
              }
            },
            "InstanceId": {
              "target": "smithy.api#String",
              "traits":
    {
                "smithy.api#documentation": "<p>The ID of the EC2 instance, which provides user-based
    subscriptions.</p>",
                "smithy.api#required": {}
              }
            },
            "IdentityProvider": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
```

```
            "traits": {
              "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
              "smithy.api#required": {}
            }
          },
          "Status": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The status of a user associated with an EC2 instance.</p>",
              "smithy.api#required": {}
            }
          },
          "StatusMessage": {
            "target": "smithy.api#String",
             "traits": {
              "smithy.api#documentation": "<p>The status message for users of an EC2 instance.</p>"
            }
          },
          "Domain": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The domain name of the user.</p>"
            }
          },
          "AssociationDate": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The date a user was associated with an EC2 instance.</p>"
            }
          },
          "DisassociationDate": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The date a user was disassociated from an EC2 instance.</p>"
            }
          }

  },
        "traits": {
          "smithy.api#documentation": "<p>Describes users of an EC2 instance providing user-based
subscriptions.</p>"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummaryList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummary"
        }
```

```
    },
    "com.amazonaws.licensemanagerusersubscriptions#InternalServerException": {
        "type": "structure",
        "members": {
            "message": {
                "target": "smithy.api#String"
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>An exception occurred with the service.</p>",
            "smithy.api#error": "server"
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#LicenseManagerUserSubscriptions": {
        "type": "service",

     "version": "2018-05-10",
        "operations": [
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#AssociateUser"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProvider"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#DisassociateUser"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProviders"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ListInstances"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptions"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociations"

},
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProvider"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscription"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscription"
```

```
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettings"
            }
         ],
         "traits": {
            "aws.api#service": {
               "sdkId": "License Manager User Subscriptions",
               "arnNamespace": "license-manager-user-subscriptions",
               "cloudTrailEventSource": "license-manager-user-subscriptions.amazonaws.com"
            },
            "aws.auth#sigv4": {
               "name": "license-manager-user-subscriptions"
             },
            "aws.protocols#restJson1": {},
            "smithy.api#cors": {
               "additionalAllowedHeaders": [
                  "*",
                  "content-type",
                  "x-amz-content-sha256",
                  "x-amz-user-agent",
                  "x-amzn-platform-id",
                  "x-amzn-trace-id",
                  "content-length",
                  "x-api-key",
                  "authorization",
                  "x-amz-date",
                  "x-amz-security-token",
                  "Access-Control-Allow-Headers",
                  "Access-Control-Allow-Methods",
                  "Access-Control-Allow-Origin"
               ],
               "additionalExposedHeaders": [
                  "x-amzn-errortype",
                  "x-amzn-requestid",
                  "x-amzn-trace-id"

]
            },
            "smithy.api#documentation": "<p>With License Manager, you can create user-based subscriptions to
utilize licensed software with\n      a per user subscription fee on Amazon EC2 instances.</p>",
            "smithy.api#title": "AWS License Manager User Subscriptions",
            "smithy.rules#endpointRuleSet": {
               "version": "1.0",
               "parameters": {
                  "Region": {
                     "builtIn": "AWS::Region",
                     "required": false,
```

```
            "documentation": "The AWS region used to dispatch the request.",
            "type": "String"
          },
          "UseDualStack": {
            "builtIn": "AWS::UseDualStack",
            "required": true,
            "default": false,
            "documentation": "When true, use the dual-stack
endpoint. If the configured endpoint does not support dual-stack, dispatching the request MAY return an error.",
            "type": "Boolean"
          },
          "UseFIPS": {
            "builtIn": "AWS::UseFIPS",
            "required": true,
            "default": false,
            "documentation": "When true, send this request to the FIPS-compliant regional endpoint. If the
configured endpoint does not have a FIPS compliant endpoint, dispatching the request will return an error.",
            "type": "Boolean"
          },
          "Endpoint": {
            "builtIn": "SDK::Endpoint",
            "required": false,
            "documentation": "Override the endpoint used to send this request",
            "type": "String"
          }

    },
        "rules": [
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            "conditions": [
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                "fn": "isSet",
                "argv": [
                  {
                    "ref": "Endpoint"
                  }
                ]
              }
            ],
            "type": "tree",
            "rules": [
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                "conditions": [
                  {
                    "fn": "booleanEquals",
                    "argv": [
                      {
                        "ref": "UseFIPS"
```

```
                    },

                    true
                    ]
                }
            ],
            "error": "Invalid Configuration: FIPS and custom endpoint are not supported",
            "type": "error"
        },
        {
            "conditions": [
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                    "argv": [
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                            "ref": "UseDualStack"
                        },
                        true
                    ]
                }
            ],

"error": "Invalid Configuration: Dualstack and custom endpoint are not supported",
            "type": "error"
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        {
            "conditions": [],
            "endpoint": {
                "url": {
                    "ref": "Endpoint"
                },
                "properties": {},
                "headers": {}
            },
            "type": "endpoint"
        }
    ]
},
{
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            "fn": "isSet",
            "argv": [

{
                    "ref": "Region"
                }
            ]
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            }
        ],
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        "rules": [
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                        "fn": "aws.partition",
                        "argv": [
                            {
                                "ref": "Region"
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                        ],
                        "assign": "PartitionResult"
                    }
                ],
                "type": "tree",

"rules": [
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                        "conditions": [
                            {
                                "fn": "booleanEquals",
                                "argv": [
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                                        "ref": "UseFIPS"
                                    },
                                    true
                                ]
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                                "argv": [
                                    {
                                        "ref": "UseDualStack"

                                    },
                                    true
                                ]
                            }
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                        "type": "tree",
                        "rules": [
                            {
                                "conditions": [
                                    {
                                        "fn": "booleanEquals",
                                        "argv": [
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                true,
                {
                  "fn": "getAttr",

 "argv": [
                    {
                      "ref": "PartitionResult"
                    },
                    "supportsFIPS"
                  ]
                }
              ]
            },
            {
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              "argv": [
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                {

          "fn": "getAttr",
                    "argv": [
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                        "ref": "PartitionResult"
                      },
                      "supportsDualStack"
                    ]
                  }
                ]
              }
            ],
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            "rules": [
              {

        "conditions": [],
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fips.{Region}.{PartitionResult#dualStackDnsSuffix}",
                  "properties": {},
                  "headers": {}
                },
                "type": "endpoint"
              }
            ]
          },
          {
            "conditions": [],
            "error": "FIPS and DualStack are enabled, but this partition does not support one or
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```
both",
                                    "type": "error"
                                }
                            ]
                        },
                        {
                            "conditions": [
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                                    "fn": "booleanEquals",
                                    "argv": [
                                        {
                                            "ref": "UseFIPS"
                                        },
                                        true
                                    ]
                                }
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                            "type": "tree",

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                                            "argv": [
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                                                {
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                                                    "argv": [
                                                        {
                                                            "ref": "PartitionResult"
                                                        },
                                                        "supportsFIPS"

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                                                    }
                                                ]
                                        }
                                    ],
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                                    "rules": [
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fips.{Region}.{PartitionResult#dnsSuffix}",
                                                "properties": {},
                                                "headers": {}
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},
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                ]
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              {
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                "type": "error"
              }
            ]
          },
          {
            "conditions": [
              {
                "fn": "booleanEquals",
                "argv": [
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                    "ref": "UseDualStack"
                  },
                  true
                ]
              }
            ],
            "type": "tree",
            "rules": [
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                "conditions": [
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                    "argv": [
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                      {

                        "fn": "getAttr",
                          "argv": [
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                              "ref": "PartitionResult"
                            },
                            "supportsDualStack"
                          ]
                        }
                      ]
                    }
                  ],
                  "type": "tree",
                  "rules": [
```

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                                    {

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subscriptions.{Region}.{PartitionResult#dualStackDnsSuffix}",
                                        "properties": {},
                                        "headers": {}
                                      },
                                      "type": "endpoint"
                                    }
                                  ]
                                },
                                {
                                  "conditions": [],
                                  "error": "DualStack is enabled but this partition does
 not support DualStack",
                                  "type": "error"
                                }
                              ]
                            },
                            {
                              "conditions": [],
                              "endpoint": {
                                "url": "https://license-manager-user-
subscriptions.{Region}.{PartitionResult#dnsSuffix}",
                                "properties": {},
                                "headers": {}
                              },
                              "type": "endpoint"
                            }
                          ]
                        }
                      ]
                    },
                    {
                      "conditions":
[],
                      "error": "Invalid Configuration: Missing Region",
                      "type": "error"
                    }
                  ]
                },
                "smithy.rules#endpointTests": {
                  "testCases": [
                    {
                      "documentation": "For region us-east-1 with FIPS enabled and DualStack enabled",
                      "expect": {
```

```
            "endpoint": {
              "url": "https://license-manager-user-subscriptions-fips.us-east-1.api.aws"
            }
          },
          "params": {
            "Region": "us-east-1",
            "UseFIPS": true,
            "UseDualStack": true
          }
        },
        {
          "documentation":
"For region us-east-1 with FIPS enabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-user-subscriptions-fips.us-east-1.amazonaws.com"
            }
          },
          "params": {
            "Region": "us-east-1",
            "UseFIPS": true,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-east-1 with FIPS disabled and DualStack enabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-user-subscriptions.us-east-1.api.aws"
            }
          },

        "params": {
            "Region": "us-east-1",
            "UseFIPS": false,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region us-east-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-user-subscriptions.us-east-1.amazonaws.com"
            }
          },
          "params": {
            "Region": "us-east-1",
            "UseFIPS": false,
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```
            "UseDualStack": false
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        },
        {
          "documentation": "For region cn-north-1 with
 FIPS enabled and DualStack enabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-user-subscriptions-fips.cn-north-
1.api.amazonwebservices.com.cn"
            }
          },
          "params": {
            "Region": "cn-north-1",
            "UseFIPS": true,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region cn-north-1 with FIPS enabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-user-subscriptions-fips.cn-north-1.amazonaws.com.cn"
            }
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      "params": {
            "Region": "cn-north-1",
            "UseFIPS": true,
            "UseDualStack": false
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              "url": "https://license-manager-user-subscriptions.cn-north-1.api.amazonwebservices.com.cn"
            }
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          "params": {
            "Region": "cn-north-1",
            "UseFIPS": false,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region cn-north-1
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```
with FIPS disabled and DualStack disabled",
                    "expect": {
                      "endpoint": {
                        "url": "https://license-manager-user-subscriptions.cn-north-1.amazonaws.com.cn"
                      }
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                    "params": {
                      "Region": "cn-north-1",
                      "UseFIPS": false,
                      "UseDualStack": false
                    }
                  },
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                    "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack enabled",
                    "expect": {
                      "endpoint": {
                        "url": "https://license-manager-user-subscriptions-fips.us-gov-east-1.api.aws"
                      }
                    },

          "params": {
                      "Region": "us-gov-east-1",
                      "UseFIPS": true,
                      "UseDualStack": true
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                    },
                    "params": {
                      "Region": "us-gov-east-1",
                      "UseFIPS": true,
                      "UseDualStack": false
                    }
                  },
                  {
                    "documentation": "For region us-gov-east-1
with FIPS disabled and DualStack enabled",
                    "expect": {
                      "endpoint": {
                        "url": "https://license-manager-user-subscriptions.us-gov-east-1.api.aws"
                      }
                    },
                    "params": {
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                "Region": "us-gov-east-1",
                "UseFIPS": false,
                "UseDualStack": true
            }
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        {
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                }
            },

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                "UseDualStack": false
            }
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            "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack enabled",
            "expect": {
                "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
            },
            "params": {
                "Region": "us-iso-east-1",
                "UseFIPS": true,
                "UseDualStack": true
            }
        },
        {
            "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack disabled",
            "expect":
{
                "endpoint": {
                    "url": "https://license-manager-user-subscriptions-fips.us-iso-east-1.c2s.ic.gov"
                }
            },
            "params": {
                "Region": "us-iso-east-1",
                "UseFIPS": true,
                "UseDualStack": false
            }
        },
        {
            "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack enabled",
            "expect": {
                "error": "DualStack is enabled but this partition does not support DualStack"
```

```
      },
      "params": {
        "Region": "us-iso-east-1",
        "UseFIPS": false,
        "UseDualStack":
true
      }
    },
    {
      "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-user-subscriptions.us-iso-east-1.c2s.ic.gov"
        }
      },
      "params": {
        "Region": "us-iso-east-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack enabled",
      "expect": {
        "error": "FIPS and DualStack are enabled, but
this partition does not support one or both"
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      "params": {
        "Region": "us-isob-east-1",
        "UseFIPS": true,
        "UseDualStack": true
      }
    },
    {
      "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack disabled",
      "expect": {
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          "url": "https://license-manager-user-subscriptions-fips.us-isob-east-1.sc2s.sgov.gov"
        }
      },
      "params": {
        "Region": "us-isob-east-1",
        "UseFIPS": true,
        "UseDualStack": false
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    {
```

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      "expect": {
        "error": "DualStack is enabled but this partition does not support DualStack"
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      "params": {
        "Region": "us-isob-east-1",
        "UseFIPS": false,
        "UseDualStack": true
      }
    },
    {
      "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-user-subscriptions.us-isob-east-1.sc2s.sgov.gov"
        }
      },
      "params": {
        "Region": "us-isob-east-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For custom endpoint with region set and fips disabled and dualstack disabled",
      "expect": {
        "endpoint": {
          "url": "https://example.com"
        }
      },
      "params": {
        "Region": "us-east-1",
        "UseFIPS": false,
        "UseDualStack": false,
        "Endpoint": "https://example.com"
      }
    },
    {

"documentation": "For custom endpoint with region not set and fips disabled and dualstack disabled",
      "expect": {
        "endpoint": {
          "url": "https://example.com"
        }
      },
      "params": {
        "UseFIPS": false,
        "UseDualStack": false,
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```
                "Endpoint": "https://example.com"
              }
            },
            {
              "documentation": "For custom endpoint with fips enabled and dualstack disabled",
              "expect": {
                "error": "Invalid Configuration: FIPS and custom endpoint are not supported"
              },
              "params": {
                "Region": "us-east-1",
                 "UseFIPS": true,
                "UseDualStack": false,
                "Endpoint": "https://example.com"
              }
            },
            {
              "documentation": "For custom endpoint with fips disabled and dualstack enabled",
              "expect": {
                "error": "Invalid Configuration: Dualstack and custom endpoint are not supported"
              },
              "params": {
                "Region": "us-east-1",
                "UseFIPS": false,
                "UseDualStack": true,
                "Endpoint": "https://example.com"
              }
            },
            {
              "documentation": "Missing region",
              "expect": {
                 "error": "Invalid Configuration: Missing Region"
              }
            }
          ],
          "version": "1.0"
        }
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProviders": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProvidersRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProvidersResponse"
      },
      "errors": [
        {
```

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            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Lists the identity providers for user-based subscriptions.</p>",
          "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/identity-provider/ListIdentityProviders"
          },
          "smithy.api#paginated":
{
            "inputToken": "NextToken",
            "outputToken": "NextToken",
            "pageSize": "MaxResults",
            "items": "IdentityProviderSummaries"
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProvidersRequest": {
        "type": "structure",
        "members": {
          "MaxResults": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#BoxInteger",
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
```

```
            "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
        }
    }
},
"com.amazonaws.licensemanagerusersubscriptions#ListIdentityProvidersResponse":
{
    "type": "structure",
    "members": {
        "IdentityProviderSummaries": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummaryList",
            "traits": {
                "smithy.api#documentation": "<p>Metadata that describes the list identity providers operation.</p>",
                "smithy.api#required": {}
            }
        },
        "NextToken": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
        }
    }
},
"com.amazonaws.licensemanagerusersubscriptions#ListInstances": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#ListInstancesRequest"
     },
    "output": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#ListInstancesResponse"
    },
    "errors": [
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
```

```
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Lists the EC2 instances providing user-based subscriptions.</p>",
            "smithy.api#http": {
               "code": 200,
               "method": "POST",
               "uri": "/instance/ListInstances"
            },
            "smithy.api#paginated": {
               "inputToken": "NextToken",
               "outputToken": "NextToken",
               "pageSize": "MaxResults",
               "items": "InstanceSummaries"
            }
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListInstancesRequest": {
         "type": "structure",
         "members": {
            "MaxResults": {
               "target": "com.amazonaws.licensemanagerusersubscriptions#BoxInteger",
               "traits": {
                  "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
               }
            },
            "NextToken": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>Token for the next set of results.</p>"
               }
            },
            "Filters": {
               "target": "com.amazonaws.licensemanagerusersubscriptions#FilterList",
               "traits": {
                  "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those
that match one or\n      more sets of key-value pairs that you specify.</p>"
               }
            }
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListInstancesResponse": {
```

```
        "type":
"structure",
        "members": {
          "InstanceSummaries": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceSummaryList",
            "traits": {
              "smithy.api#documentation": "<p>Metadata that describes the list instances operation.</p>"
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptions": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptionsRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptionsResponse"
         },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
           }
        ],
```

```
        "traits": {
            "smithy.api#documentation": "<p>Lists the user-based subscription products available from an identity
provider.</p>",
            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/user/ListProductSubscriptions"
            },
            "smithy.api#paginated": {
                "inputToken": "NextToken",
                "outputToken": "NextToken",
                "pageSize": "MaxResults",
                "items": "ProductUserSummaries"
            }
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptionsRequest": {
        "type": "structure",
        "members": {
            "Product": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The name
 of the user-based subscription product.</p>",
                    "smithy.api#required": {}
                }
            },
            "IdentityProvider": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
                "traits": {
                    "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
                    "smithy.api#required": {}
                }
            },
            "MaxResults": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#BoxInteger",
                "traits": {
                    "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
                }
            },
            "Filters": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#FilterList",
                "traits": {

  "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those that match
one or\n      more sets of key-value pairs that you specify.</p>"
                }
            },
```

```
            "NextToken": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>Token for the next set of results.</p>"
                }
            }
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptionsResponse": {
        "type": "structure",
        "members": {
            "ProductUserSummaries": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummaryList",
                "traits": {
                    "smithy.api#documentation": "<p>Metadata that describes the list product subscriptions
operation.</p>"
                }
            },

     "NextToken": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>Token for the next set of results.</p>"
                }
            }
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociations": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociationsRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociationsResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
            },
            {
                "target":
 "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
```

```
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Lists user associations for an identity provider.</p>",
            "smithy.api#http": {
               "code": 200,
               "method": "POST",
               "uri": "/user/ListUserAssociations"
            },
            "smithy.api#paginated":
{
               "inputToken": "NextToken",
               "outputToken": "NextToken",
               "pageSize": "MaxResults",
               "items": "InstanceUserSummaries"
            }
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociationsRequest": {
         "type": "structure",
         "members": {
            "InstanceId": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The ID of the EC2 instance, which provides user-based
subscriptions.</p>",
                  "smithy.api#required": {}
               }
            },
            "IdentityProvider": {
               "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
               "traits": {
                  "smithy.api#documentation": "<p>An object that specifies details for the identity
 provider.</p>",
                  "smithy.api#required": {}
               }
            },
            "MaxResults": {
               "target": "com.amazonaws.licensemanagerusersubscriptions#BoxInteger",
```

```
            "traits": {
                "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
        },
        "Filters": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#FilterList",
            "traits": {
                "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those
that match one or\n      more sets of key-value pairs that you specify.</p>"
            }
        },
        "NextToken": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>Token for
 the next set of results.</p>"
            }
        }
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociationsResponse": {
      "type": "structure",
      "members": {
        "InstanceUserSummaries": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummaryList",
          "traits": {
            "smithy.api#documentation": "<p>Metadata that describes the list user association operation.</p>"
          }
        },
        "NextToken": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>Token for the next set of results.</p>"
          }
        }
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummary": {
      "type": "structure",
      "members": {

      "Username": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The user name from the identity provider of the user.</p>",
              "smithy.api#required": {}
            }
        },
```

```
        "Product": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
            "smithy.api#required": {}
          }
        },
        "IdentityProvider": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
          "traits": {
            "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
            "smithy.api#required": {}
          }

    },
        "Status": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The status of a product for a user.</p>",
            "smithy.api#required": {}
          }
        },
        "StatusMessage": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The status message for a product for a user.</p>"
          }
        },
        "Domain": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The domain name of the user.</p>"
          }
        },
        "SubscriptionStartDate": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The
start date of a subscription.</p>"
          }
        },
        "SubscriptionEndDate": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The end date of a subscription.</p>"
          }
        }
      },
```

```
    "traits": {
        "smithy.api#documentation": "<p>The summary of the user-based subscription products for a user.</p>"
    }
},
"com.amazonaws.licensemanagerusersubscriptions#ProductUserSummaryList": {
    "type": "list",
    "member": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummary"
    }
},
"com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProvider": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProviderRequest"
     },
    "output": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProviderResponse"
    },
    "errors": [
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
         },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
        }
    ],
    "traits": {
        "smithy.api#documentation": "<p>Registers an identity provider for user-based subscriptions.</p>",
        "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/identity-provider/RegisterIdentityProvider"
        },
```

```
            "smithy.api#idempotent": {}
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProviderRequest": {
        "type": "structure",
        "members": {
            "IdentityProvider": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
                "traits": {
                    "smithy.api#documentation": "<p>An object that specifies details for the identity
provider.</p>",
                    "smithy.api#required": {}
                }
            },
            "Product": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
                    "smithy.api#required": {}
                }
            },
            "Settings": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#Settings",
                "traits": {
                    "smithy.api#documentation": "<p>The registered identity providers product related configuration
settings such as the\n      subnets to provision VPC endpoints.</p>"
                }
            }
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProviderResponse": {
        "type": "structure",
        "members": {
            "IdentityProviderSummary":
{
                "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary",
                "traits": {
                    "smithy.api#documentation": "<p>Metadata that describes the results of an identity provider
operation.</p>",
                    "smithy.api#required": {}
                }
            }
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException": {
        "type": "structure",
        "members": {
            "message": {
```

```
            "target": "smithy.api#String"
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>The resource couldn't be found.</p>",
          "smithy.api#error": "client",
          "smithy.api#httpError": 404
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#SecurityGroup": {
        "type": "string",

    "traits": {
          "smithy.api#length": {
            "min": 5,
            "max": 200
          },
          "smithy.api#pattern": "^sg-(([0-9a-z]{8})|([0-9a-z]{17}))$"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException": {
        "type": "structure",
        "members": {
          "message": {
            "target": "smithy.api#String"
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>The request failed because a service quota is exceeded.</p>",
          "smithy.api#error": "client"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#Settings": {
        "type": "structure",
        "members": {
          "Subnets": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#Subnets",
            "traits": {
              "smithy.api#documentation":
    "<p>The subnets defined for the registered identity provider.</p>",
              "smithy.api#length": {
                "min": 1
              },
              "smithy.api#required": {}
            }
          },
          "SecurityGroupId": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#SecurityGroup",
```

```
            "traits": {
              "smithy.api#documentation": "<p>A security group ID that allows inbound TCP port 1688 communication between resources in\n      your VPC and the VPC endpoint for activation servers.</p>",
              "smithy.api#required": {}
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>The registered identity providers product related configuration settings such as the\n      subnets to provision VPC endpoints, and the security group ID that
 is associated with the VPC\n      endpoints. The security group should permit inbound TCP port 1688 communication from resources\n      in the VPC.</p>"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscription": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscriptionRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscriptionResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Starts a product subscription for a user with the specified identity provider.</p>\n      <note>\n        <p>Your estimated bill for charges on the number of users and related costs
```

will take 48\n hours to appear for billing periods that haven't closed (marked as Pending billing status) in Amazon Web Services Billing.
For more information, see Viewing your\n monthly charges in the Amazon Web Services Billing User Guide. \n </note>",
"smithy.api#http": {
"code": 200,
"method": "POST",
"uri": "/user/StartProductSubscription"
}
}
},
"com.amazonaws.licensemanagerusersubscriptions#StartProductSubscriptionRequest": {
"type": "structure",
"members": {
"Username": {
"target": "smithy.api#String",
"traits": {
"smithy.api#documentation": " The user name from the identity provider of the user. ",
"smithy.api#required": {}
}
},
"IdentityProvider": {
"target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
"traits": {
"smithy.api#documentation": " An object that specifies details for the identity provider. ",
"smithy.api#required": {}
}
},
"Product": {
"target": "smithy.api#String",
"traits": {
"smithy.api#documentation": " The name of the user-based subscription product. ",
"smithy.api#required": {}
}
},
"Domain": {
"target": "smithy.api#String",
"traits": {
"smithy.api#documentation": " The domain name of the user. "
}
}
}
},
"com.amazonaws.licensemanagerusersubscriptions#StartProductSubscriptionResponse": {
"type": "structure",
"members": {
"ProductUserSummary": {

```
            "target": "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummary",
            "traits": {
              "smithy.api#documentation": "<p>Metadata that describes the start product subscription
operation.</p>",
              "smithy.api#required": {}
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscription": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscriptionRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscriptionResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"

    },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Stops a product subscription for a user with the specified identity
provider.</p>",
           "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/user/StopProductSubscription"
```

```
            }
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscriptionRequest": {
          "type": "structure",
          "members": {
            "Username": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The user name from the identity provider for the user.</p>",
                "smithy.api#required": {}
              }
            },
            "IdentityProvider": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
              "traits": {
                "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
                "smithy.api#required":
{}
              }
            },
            "Product": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
                "smithy.api#required": {}
              }
            },
            "Domain": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The domain name of the user.</p>"
              }
            }
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscriptionResponse": {
          "type": "structure",
          "members": {
            "ProductUserSummary": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummary",
              "traits": {
                "smithy.api#documentation":
"<p>Metadata that describes the start product subscription operation.</p>",
                "smithy.api#required": {}
              }
            }
          }
```

```
    },
    "com.amazonaws.licensemanagerusersubscriptions#StringList": {
      "type": "list",
      "member": {
        "target": "smithy.api#String"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#Subnet": {
      "type": "string",
      "traits": {
        "smithy.api#pattern": "subnet-[a-z0-9]{8,17}"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#Subnets": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#Subnet"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException": {
      "type": "structure",
      "members": {
        "message": {

         "target": "smithy.api#String"
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>The request was denied because of request throttling. Retry the
request.</p>",
        "smithy.api#error": "client"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettings": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettingsRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettingsResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
```

```
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Updates additional product configuration settings for the registered identity\n      provider.</p>",
            "smithy.api#http": {
              "code": 200,
              "method": "POST",
              "uri": "/identity-provider/UpdateIdentityProviderSettings"
            },
            "smithy.api#idempotent": {}
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettingsRequest": {
          "type": "structure",
          "members": {
            "IdentityProvider": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
              "traits": {
                "smithy.api#required": {}
              }
            },
            "Product": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
                "smithy.api#required": {}
              }
            },
            "UpdateSettings": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#UpdateSettings",
              "traits": {
                "smithy.api#documentation": "<p>Updates the registered identity providers product related configuration settings. You can\n      update any combination of settings in a single operation such as the:</p>\n<ul>\n            <li>\n              <p>Subnets which you want to add to provision VPC endpoints.</p>\n            </li>\n            <li>\n              <p>Subnets which you want to remove the VPC endpoints from.</p>\n            </li>\n            <li>\n              <p>Security group ID which permits traffic to the VPC endpoints.</p>\n            </li>\n          </ul>",
                "smithy.api#required": {}
              }
            }
          }
        },
```

```
    "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettingsResponse": {
      "type": "structure",
      "members": {
        "IdentityProviderSummary": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary",
          "traits": {
            "smithy.api#required": {}
          }
        }
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#UpdateSettings": {
      "type": "structure",
      "members": {
        "AddSubnets": {

       "target": "com.amazonaws.licensemanagerusersubscriptions#Subnets",
          "traits": {
            "smithy.api#documentation": "<p>The ID of one or more subnets in which License Manager will
create a VPC endpoint for products that\n      require connectivity to activation servers.</p>",
            "smithy.api#required": {}
          }
        },
        "RemoveSubnets": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#Subnets",
          "traits": {
            "smithy.api#documentation": "<p>The ID of one or more subnets to remove.</p>",
            "smithy.api#required": {}
          }
        },
        "SecurityGroupId": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#SecurityGroup",
          "traits": {
            "smithy.api#documentation": "<p>A security group ID
 that allows inbound TCP port 1688 communication between resources in\n      your VPC and the VPC endpoints for
activation servers.</p>"
          }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>Updates the registered identity providers product related configuration
settings such as\n      the subnets to provision VPC endpoints.</p>"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ValidationException": {
      "type": "structure",
      "members": {
        "message": {
```

```
                "target": "smithy.api#String"
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>A parameter is not valid.</p>",
            "smithy.api#error": "client"
        }
    }
  }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/aws/signer/v4"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Deletes the specified license.
func (c *Client) DeleteLicense(ctx context.Context, params *DeleteLicenseInput, optFns ...func(*Options))
(*DeleteLicenseOutput, error) {
 if params == nil {
  params = &DeleteLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "DeleteLicense", params, optFns,
c.addOperationDeleteLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*DeleteLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type DeleteLicenseInput struct {

 // Amazon Resource Name (ARN) of the license.
 //
 // This member is required.
 LicenseArn *string
```

```
 // Current version
 of the license.
 //
 // This member is required.
 SourceVersion *string

 noSmithyDocumentSerde
}

type DeleteLicenseOutput struct {

 // Date when the license is deleted.
 DeletionDate *string

 // License status.
 Status types.LicenseDeletionStatus

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationDeleteLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpDeleteLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpDeleteLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "DeleteLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack,
 options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = awsmiddleware.AddClientRequestIDMiddleware(stack); err != nil {
```

```
 return err
 }
 if err = smithyhttp.AddComputeContentLengthMiddleware(stack); err != nil {
 return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
 return err
 }
 if err = v4.AddComputePayloadSHA256Middleware(stack); err != nil {
 return err
 }
 if err = addRetryMiddlewares(stack, options); err != nil {
 return err
 }
 if err = awsmiddleware.AddRawResponseToMetadata(stack); err != nil {
 return err
 }
 if err = awsmiddleware.AddRecordResponseTiming(stack); err != nil {
 return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
 return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
 return err
 }
 if
 err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
 return err
 }
 if err = addOpDeleteLicenseValidationMiddleware(stack); err != nil {
 return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opDeleteLicense(options.Region),
middleware.Before); err != nil {
 return err
 }
 if err = awsmiddleware.AddRecursionDetection(stack); err != nil {
 return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
 return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
 return err
```

```
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opDeleteLicense(region string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName: "DeleteLicense",
 }
}
```

1.569 aws-sdk-go-v2-service-sts 1.30.3

1.569.1 Available under license :

```
name: License Scan

on: [pull_request]

jobs:
 licensescan:
   name: License Scan
   runs-on: ubuntu-latest
   strategy:
     matrix:
       python-version: [3.9]

   steps:
     - name: Checkout target
       uses: actions/checkout@v2
       with:
         path: sdkbase
         ref: ${{ github.base_ref }}
     - name: Checkout this ref
       uses: actions/checkout@v2
       with:
         path: new-ref
         fetch-depth: 0
     - name: Get Diff
       run: git --git-dir ./new-ref/.git diff --name-only --diff-filter=ACMRT ${{ github.event.pull_request.base.sha }}
${{ github.sha }} > refDiffFiles.txt
```

```
    - name: Get Target Files
      run: git --git-dir ./sdkbase/.git ls-files | grep -xf refDiffFiles.txt - > targetFiles.txt
    - name: Checkout scancode
      uses: actions/checkout@v2
      with:
        repository: nexB/scancode-toolkit
        path: scancode-toolkit
        fetch-depth: 1
    - name: Set up Python ${{ matrix.python-version }}
       uses: actions/setup-python@v2
      with:
        python-version: ${{ matrix.python-version }}
    # ScanCode
    - name: Self-configure scancode
      working-directory: ./scancode-toolkit
      run: ./scancode --help
    - name: Run Scan code on target
      run: cat targetFiles.txt | while read filename; do echo ./sdkbase/$filename; done | xargs ./scancode-
toolkit/scancode -l -n 30 --json-pp - | grep short_name | sort | uniq >> old-licenses.txt
    - name: Run Scan code on pr ref
      run: cat refDiffFiles.txt | while read filename; do echo ./new-ref/$filename; done | xargs ./scancode-
toolkit/scancode -l -n 30 --json-pp - | grep short_name | sort | uniq >> new-licenses.txt
    # compare
    - name: License test
      run: if ! cmp old-licenses.txt new-licenses.txt; then echo "Licenses differ! Failing."; exit -1; else echo "Licenses
are the same. Success."; exit 0; fi
CreateLicense
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
  OperationInputValidation
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
 Build stack step
  ClientRequestID
  ComputeContentLength
  UserAgent
  AddTimeOffsetMiddleware
  RecursionDetection
 Finalize stack step
  ResolveAuthScheme
  GetIdentity
  ResolveEndpointV2
  disableHTTPS
  ComputePayloadHash
```

Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
AddTimeOffsetMiddleware
RecordResponseTiming
RequestResponseLogger
ListReceivedLicenses
Initialize stack step
RegisterServiceMetadata
legacyEndpointContextSetter
SetLogger
Serialize stack step
setOperationInput
ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
UserAgent
AddTimeOffsetMiddleware
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
AddTimeOffsetMiddleware
RecordResponseTiming

```
  RequestResponseLogger
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Checks out the specified license.
//
// If the account that created the license is the same that is performing the
// check out, you must specify the account as the beneficiary.
func (c *Client) CheckoutLicense(ctx context.Context, params *CheckoutLicenseInput, optFns ...func(*Options))
(*CheckoutLicenseOutput, error) {
 if params == nil {
  params = &CheckoutLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "CheckoutLicense", params, optFns,
c.addOperationCheckoutLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*CheckoutLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type CheckoutLicenseInput struct {

 //
 Checkout type.
 //
 // This member is required.
 CheckoutType types.CheckoutType

 // Unique, case-sensitive identifier that you provide to ensure the idempotency of
 // the request.
 //
 // This member is required.
 ClientToken *string
```

```
// License entitlements.
//
// This member is required.
Entitlements []types.EntitlementData

// Key fingerprint identifying the license.
//
// This member is required.
KeyFingerprint *string

// Product SKU.
//
// This member is required.
ProductSKU *string

// License beneficiary.
Beneficiary *string

// Node ID.
NodeId *string

noSmithyDocumentSerde
}

type CheckoutLicenseOutput struct {

// Checkout type.
CheckoutType types.CheckoutType

// Allowed license entitlements.
EntitlementsAllowed []types.EntitlementData

// Date and time at which the license checkout expires.
Expiration *string

// Date and time at which the license checkout is issued.
IssuedAt *string

// Amazon Resource Name (ARN) of the checkout license.
LicenseArn
*string

// License consumption token.
LicenseConsumptionToken *string

// Node ID.
NodeId *string
```

```
 // Signed token.
 SignedToken *string

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationCheckoutLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpCheckoutLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpCheckoutLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "CheckoutLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack,
 options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
```

```
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
  return err
 }
 if err = addUserAgentRetryMode(stack,
 options); err != nil {
  return err
 }
 if err = addOpCheckoutLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opCheckoutLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
```

```
}

func newServiceMetadataMiddleware_opCheckoutLicense(region string) *awsmiddleware.RegisterServiceMetadata
{
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:    ServiceID,
  OperationName: "CheckoutLicense",
 }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Creates a license.
func (c *Client) CreateLicense(ctx context.Context, params *CreateLicenseInput, optFns ...func(*Options))
(*CreateLicenseOutput, error) {
 if params == nil {
  params = &CreateLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "CreateLicense", params, optFns,
c.addOperationCreateLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*CreateLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type CreateLicenseInput struct {

 // License beneficiary.
 //
 // This member is required.
 Beneficiary *string
```

```
// Unique, case-sensitive identifier that you provide to ensure the idempotency of
// the request.
//
//
This member is required.
ClientToken *string

// Configuration for consumption of the license. Choose a provisional
// configuration for workloads running with continuous connectivity. Choose a
// borrow configuration for workloads with offline usage.
//
// This member is required.
ConsumptionConfiguration *types.ConsumptionConfiguration

// License entitlements.
//
// This member is required.
Entitlements []types.Entitlement

// Home Region for the license.
//
// This member is required.
HomeRegion *string

// License issuer.
//
// This member is required.
Issuer *types.Issuer

// License name.
//
// This member is required.
LicenseName *string

// Product name.
//
// This member is required.
ProductName *string

// Product SKU.
//
// This member is required.
ProductSKU *string

// Date and time range during which the license is valid, in ISO8601-UTC format.
//
// This member is required.
Validity *types.DatetimeRange
```

```
 // Information about
 the license.
 LicenseMetadata []types.Metadata

 noSmithyDocumentSerde
}

type CreateLicenseOutput struct {

 // Amazon Resource Name (ARN) of the license.
 LicenseArn *string

 // License status.
 Status types.LicenseStatus

 // License version.
 Version *string

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationCreateLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpCreateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpCreateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "CreateLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if
 err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
```

```
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return
 err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
  return err
 }
 if err = addUserAgentRetryMode(stack, options); err != nil {
  return err
 }
 if err = addOpCreateLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opCreateLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
```

```
 return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opCreateLicense(region string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:    ServiceID,
  OperationName:
 "CreateLicense",
 }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package grafana

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/grafana/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Removes the Grafana Enterprise license from a workspace.
func (c *Client) DisassociateLicense(ctx context.Context, params *DisassociateLicenseInput, optFns
...func(*Options)) (*DisassociateLicenseOutput, error) {
 if params == nil {
  params = &DisassociateLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "DisassociateLicense", params, optFns,
c.addOperationDisassociateLicenseMiddlewares)
 if err != nil {
```

```
 return nil, err
 }

 out := result.(*DisassociateLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type DisassociateLicenseInput struct {

 // The type of license to remove from the workspace.
 //
 // This member is required.
 LicenseType types.LicenseType

 //
 The ID of the workspace to remove the Grafana Enterprise license from.
 //
 // This member is required.
 WorkspaceId *string

 noSmithyDocumentSerde
}

type DisassociateLicenseOutput struct {

 // A structure containing information about the workspace.
 //
 // This member is required.
 Workspace *types.WorkspaceDescription

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationDisassociateLicenseMiddlewares(stack *middleware.Stack, options Options) (err
error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsRestjson1_serializeOpDisassociateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsRestjson1_deserializeOpDisassociateLicense{}, middleware.After)
 if err != nil {
```

```
 return err
}
if err := addProtocolFinalizerMiddlewares(stack, options, "DisassociateLicense");
err != nil {
 return fmt.Errorf("add protocol finalizers: %v", err)
}

if err = addlegacyEndpointContextSetter(stack, options); err != nil {
 return err
}
if err = addSetLoggerMiddleware(stack, options); err != nil {
 return err
}
if err = addClientRequestID(stack); err != nil {
 return err
}
if err = addComputeContentLength(stack); err != nil {
 return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
 return err
}
if err = addComputePayloadSHA256(stack); err != nil {
 return err
}
if err = addRetry(stack, options); err != nil {
 return err
}
if err = addRawResponseToMetadata(stack); err != nil {
 return err
}
if err = addRecordResponseTiming(stack); err != nil {
 return err
}
if err = addClientUserAgent(stack, options); err != nil {
 return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil
{
 return err
}
if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
 return err
}
if err = addTimeOffsetBuild(stack, c); err != nil {
```

```
 return err
 }
 if err = addUserAgentRetryMode(stack, options); err != nil {
 return err
 }
 if err = addOpDisassociateLicenseValidationMiddleware(stack); err != nil {
 return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opDisassociateLicense(options.Region),
middleware.Before); err != nil {
 return err
 }
 if err = addRecursionDetection(stack); err != nil {
 return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
 return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
 return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
 return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
 return err
 }
 return nil
}

func newServiceMetadataMiddleware_opDisassociateLicense(region string)
*awsmiddleware.RegisterServiceMetadata
 {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:    ServiceID,
  OperationName: "DisassociateLicense",
 }
}
CheckoutLicense
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
  OperationInputValidation
 Serialize stack step
  setOperationInput
  ResolveEndpoint
```

OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
UserAgent
AddTimeOffsetMiddleware
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
AddTimeOffsetMiddleware
RecordResponseTiming
RequestResponseLogger
DisassociateLicense
Initialize stack step
RegisterServiceMetadata
legacyEndpointContextSetter
SetLogger
OperationInputValidation
Serialize stack step
setOperationInput
ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
UserAgent
AddTimeOffsetMiddleware
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS

ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
AddTimeOffsetMiddleware
RecordResponseTiming
RequestResponseLogger
CheckoutBorrowLicense
Initialize stack step
RegisterServiceMetadata
legacyEndpointContextSetter
SetLogger
OperationInputValidation
Serialize stack step
setOperationInput
ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
UserAgent
AddTimeOffsetMiddleware
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer

```
  AddTimeOffsetMiddleware
  RecordResponseTiming
  RequestResponseLogger
AssociateLicense
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
  OperationInputValidation
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
 Build stack step
  ClientRequestID
  ComputeContentLength
  UserAgent
  AddTimeOffsetMiddleware
  RecursionDetection
 Finalize stack step
  ResolveAuthScheme
  GetIdentity
  ResolveEndpointV2
  disableHTTPS
  ComputePayloadHash
  Retry
  RetryMetricsHeader
  setLegacyContextSigningOptions
  Signing
 Deserialize stack step
  AddRawResponseToMetadata
  ErrorCloseResponseBody
  CloseResponseBody
  ResponseErrorWrapper
  RequestIDRetriever
  OperationDeserializer
  AddTimeOffsetMiddleware
  RecordResponseTiming
  RequestResponseLogger
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
```

```
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Lists received licenses.
func (c *Client) ListReceivedLicenses(ctx context.Context, params *ListReceivedLicensesInput, optFns
...func(*Options)) (*ListReceivedLicensesOutput, error) {
 if params == nil {
  params = &ListReceivedLicensesInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "ListReceivedLicenses", params, optFns,
c.addOperationListReceivedLicensesMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*ListReceivedLicensesOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type ListReceivedLicensesInput struct {

 // Filters to scope the results. The following filters are supported:
 //
 //   - ProductSKU
 //
 //   - Status
 //
 //
   - Fingerprint
 //
 //   - IssuerName
 //
 //   - Beneficiary
 Filters []types.Filter

 // Amazon Resource Names (ARNs) of the licenses.
 LicenseArns []string

 // Maximum number of results to return in a single call.
 MaxResults *int32

 // Token for the next set of results.
 NextToken *string

 noSmithyDocumentSerde
```

```
}

type ListReceivedLicensesOutput struct {

 // Received license details.
 Licenses []types.GrantedLicense

 // Token for the next set of results.
 NextToken *string

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationListReceivedLicensesMiddlewares(stack *middleware.Stack, options Options) (err
error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpListReceivedLicenses{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpListReceivedLicenses{},
 middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "ListReceivedLicenses"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
```

```
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err
 = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
  return err
 }
 if err = addUserAgentRetryMode(stack, options); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opListReceivedLicenses(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
```

```
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opListReceivedLicenses(region
 string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName: "ListReceivedLicenses",
 }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Gets detailed information about the specified license.
func (c *Client) GetLicense(ctx context.Context, params *GetLicenseInput, optFns ...func(*Options))
(*GetLicenseOutput, error) {
 if params == nil {
  params = &GetLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "GetLicense", params, optFns,
c.addOperationGetLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*GetLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type GetLicenseInput struct {

 // Amazon Resource Name (ARN) of the license.
```

```
 //
 // This member is required.
 LicenseArn *string

 // License version.
 Version *string

 noSmithyDocumentSerde
}

type
 GetLicenseOutput struct {

 // License details.
 License *types.License

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationGetLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpGetLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpGetLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "GetLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err
 != nil {
  return err
 }
```

```
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
  return err
 }
 if err = addUserAgentRetryMode(stack, options); err != nil {
  return err
 }
 if err = addOpGetLicenseValidationMiddleware(stack);
 err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opGetLicense(options.Region), middleware.Before);
err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
```

```
 return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opGetLicense(region string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName: "GetLicense",
 }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package grafana

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/grafana/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Assigns a Grafana Enterprise license to a workspace. To upgrade, you must use
// ENTERPRISE for the licenseType , and pass in a valid Grafana Labs token for the
// grafanaToken . Upgrading to Grafana Enterprise incurs additional fees. For more
// information, see [Upgrade a workspace to Grafana Enterprise].
//
// [Upgrade a workspace to Grafana Enterprise]: https://docs.aws.amazon.com/grafana/latest/userguide/upgrade-to-
Grafana-Enterprise.html
func (c *Client) AssociateLicense(ctx context.Context, params *AssociateLicenseInput, optFns ...func(*Options))
(*AssociateLicenseOutput, error) {
 if params == nil {
  params = &AssociateLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx,
```

```
 "AssociateLicense", params, optFns, c.addOperationAssociateLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*AssociateLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type AssociateLicenseInput struct {

 // The type of license to associate with the workspace.
 //
 // Amazon Managed Grafana workspaces no longer support Grafana Enterprise free
 // trials.
 //
 // This member is required.
 LicenseType types.LicenseType

 // The ID of the workspace to associate the license with.
 //
 // This member is required.
 WorkspaceId *string

 // A token from Grafana Labs that ties your Amazon Web Services account with a
 // Grafana Labs account. For more information, see [Link your account with Grafana Labs].
 //
 // [Link your account with Grafana Labs]: https://docs.aws.amazon.com/grafana/latest/userguide/upgrade-to-
Grafana-Enterprise.html#AMG-workspace-register-enterprise
 GrafanaToken *string

 noSmithyDocumentSerde
}

type AssociateLicenseOutput
 struct {

 // A structure containing data about the workspace.
 //
 // This member is required.
 Workspace *types.WorkspaceDescription

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}
```

```
func (c *Client) addOperationAssociateLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsRestjson1_serializeOpAssociateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsRestjson1_deserializeOpAssociateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "AssociateLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack,
 options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
```

```
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
  return err
 }
 if err = addUserAgentRetryMode(stack,
 options); err != nil {
  return err
 }
 if err = addOpAssociateLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opAssociateLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opAssociateLicense(region string)
*awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName: "AssociateLicense",
 }
```

}
ListLicenses
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
 Build stack step
  ClientRequestID
  ComputeContentLength
  UserAgent
  AddTimeOffsetMiddleware
  RecursionDetection
 Finalize stack step
  ResolveAuthScheme
  GetIdentity
  ResolveEndpointV2
  disableHTTPS
  ComputePayloadHash
  Retry
  RetryMetricsHeader
  setLegacyContextSigningOptions
  Signing
 Deserialize stack step
  AddRawResponseToMetadata
  ErrorCloseResponseBody
  CloseResponseBody
  ResponseErrorWrapper
  RequestIDRetriever
  OperationDeserializer
  AddTimeOffsetMiddleware
  RecordResponseTiming
  RequestResponseLogger
AWS SDK for Go
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Copyright 2014-2015 Stripe, Inc.
{
  "smithy": "2.0",
  "shapes": {
    "com.amazonaws.licensemanagerlinuxsubscriptions#BoxInteger": {
      "type": "integer"
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#BoxLong": {
      "type": "long"
    },

```
    "com.amazonaws.licensemanagerlinuxsubscriptions#DeregisterSubscriptionProvider": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#DeregisterSubscriptionProviderRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#DeregisterSubscriptionProviderResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
        },
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ResourceNotFoundException"
        },

    {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
        },
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Remove a third-party subscription provider from the Bring Your Own
License (BYOL) subscriptions \n\t\t\tregistered to your account.</p>",
        "smithy.api#http": {
          "code": 200,
          "method": "POST",
          "uri": "/subscription/DeregisterSubscriptionProvider"
        },
        "smithy.api#idempotent": {}
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#DeregisterSubscriptionProviderRequest": {
      "type": "structure",
      "members": {
        "SubscriptionProviderArn": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn",
           "traits": {
            "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the subscription provider
resource to deregister.</p>",
            "smithy.api#required": {}
          }
        }
      },
      "traits": {
        "smithy.api#input": {}
```

```
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#DeregisterSubscriptionProviderResponse": {
        "type": "structure",
        "members": {},
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#Filter": {
        "type": "structure",
        "members": {
          "Name": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The type of name to filter by.</p>"
             }
          },
          "Values": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringList",
            "traits": {
              "smithy.api#documentation": "<p>One or more values for the name to filter by.</p>"
            }
          },
          "Operator": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Operator",
            "traits": {
              "smithy.api#documentation": "<p>An operator for filtering results.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>A filter object that is used to return more specific results from a describe
operation.\n      Filters can be used to match a set of resources by specific criteria.</p>"
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#FilterList": {
        "type":
 "list",
        "member": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Filter"
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#GetRegisteredSubscriptionProvider": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#GetRegisteredSubscriptionProviderRequest"
        },
```

```
        "output": {
            "target":
"com.amazonaws.licensemanagerlinuxsubscriptions#GetRegisteredSubscriptionProviderResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
            },
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ResourceNotFoundException"
            },
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
             },
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Get details for a Bring Your Own License (BYOL) subscription that's
registered to your account.</p>",
            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/subscription/GetRegisteredSubscriptionProvider"
            },
            "smithy.api#idempotent": {}
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#GetRegisteredSubscriptionProviderRequest": {
        "type": "structure",
        "members": {
            "SubscriptionProviderArn": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn",
                "traits": {
                    "smithy.api#documentation":
 "<p>The Amazon Resource Name (ARN) of the BYOL registration resource to get details for.</p>",
                    "smithy.api#required": {}
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#GetRegisteredSubscriptionProviderResponse": {
        "type": "structure",
        "members": {
```

```
            "SubscriptionProviderArn": {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn",
               "traits": {
                  "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) for the BYOL registration
resource specified in the request.</p>"
               }
            },
            "SubscriptionProviderSource": {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderSource",

         "traits": {
                  "smithy.api#documentation": "<p>The subscription provider for the BYOL registration resource
specified \n\t\t\tin the request.</p>"
               }
            },
            "SecretArn": {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SecretArn",
               "traits": {
                  "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the third-party access
secret stored in Secrets Manager for the BYOL \n\t\t\tregistration resource specified in the request.</p>"
               }
            },
            "SubscriptionProviderStatus": {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderStatus",
               "traits": {
                  "smithy.api#documentation": "<p>The status of the Linux subscription provider access token from the
last \n\t\t\tsuccessful subscription data request.</p>"
                }
            },
            "SubscriptionProviderStatusMessage": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The detailed message from your subscription provider token
status.</p>"
               }
            },
            "LastSuccessfulDataRetrievalTime": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The timestamp from the last time License Manager retrieved
subscription details \n\t\t\tfrom your registered third-party Linux subscription provider.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#output": {}
         }
      },
```

```
    "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettings": {
      "type": "operation",
      "input": {
        "target":
"com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettingsRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettingsResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
        },
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
        },
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Lists the Linux subscriptions service settings for your account.</p>",
        "smithy.api#http": {
          "code": 200,
          "method": "POST",
          "uri": "/subscription/GetServiceSettings"

       },
        "smithy.api#idempotent": {}
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettingsRequest": {
      "type": "structure",
      "members": {}
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettingsResponse": {
      "type": "structure",
      "members": {
        "LinuxSubscriptionsDiscovery": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscovery",
          "traits": {
            "smithy.api#documentation": "<p>Lists if discovery has been enabled for Linux subscriptions.</p>"
          }
        },
        "LinuxSubscriptionsDiscoverySettings": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscoverySettings",
          "traits": {
            "smithy.api#documentation": "<p>Lists
```

```
 the settings defined for Linux subscriptions discovery. The settings include if\n      Organizations integration has been enabled, and which Regions data will be aggregated from.</p>"
                }
            },
            "Status": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Status",
                "traits": {
                    "smithy.api#documentation": "<p>Indicates the status of Linux subscriptions settings being applied.</p>"
                }
            },
            "StatusMessage": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringMap",
                "traits": {
                    "smithy.api#documentation": "<p>A message which details the Linux subscriptions service settings current status.</p>"
                }
            },
            "HomeRegions": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringList",
                 "traits": {
                    "smithy.api#documentation": "<p>The Region in which License Manager displays the aggregated data for Linux\n      subscriptions.</p>"
                }
            }
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#Instance": {
        "type": "structure",
        "members": {
            "AmiId": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The AMI ID used to launch the instance.</p>"
                }
            },
            "InstanceID": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The instance ID of the resource.</p>"
                }
            },
            "InstanceType": {
                "target": "smithy.api#String",
                "traits":
{
                    "smithy.api#documentation": "<p>The instance type of the resource.</p>"
                }
```

```
        },
        "AccountID": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The account ID which owns the instance.</p>"
          }
        },
        "Status": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The status of the instance.</p>"
          }
        },
        "Region": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The Region the instance is running in.</p>"
          }
        },
        "UsageOperation": {
          "target": "smithy.api#String",

   "traits": {
            "smithy.api#documentation": "<p>The usage operation of the instance. For more information, see For more information, see\n        <a href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/linux-subscriptions-usage-operation.html\">Usage\n        operation values</a> in the <i>License Manager User Guide</i>.</p>"
          }
        },
        "ProductCode": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ProductCodeList",
          "traits": {
            "smithy.api#documentation": "<p>The product code for the instance. For more information, see <a href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/linux-subscriptions-usage-operation.html\">Usage\n        operation values</a> in the <i>License Manager User Guide</i> .</p>"
          }
        },
        "LastUpdatedTime": {
          "target": "smithy.api#String",
           "traits": {
            "smithy.api#documentation": "<p>The time in which the last discovery updated the instance details.</p>"
          }
        },
        "SubscriptionName": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The name of the license subscription that the instance uses.</p>"
```

```
            }
        },
        "OsVersion": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The operating system software version that runs on your
instance.</p>"
            }
        },
        "SubscriptionProviderCreateTime": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The timestamp when you registered
 the third-party Linux subscription \n\t\t\tprovider for the subscription that the instance uses.</p>"
            }
        },
        "SubscriptionProviderUpdateTime": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The timestamp from the last time that the instance synced with the
registered \n\t\t\tthird-party Linux subscription provider.</p>"
            }
        },
        "DualSubscription": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>Indicates that you have two different license subscriptions for
\n\t\t\tthe same software on your instance.</p>"
            }
        },
        "RegisteredWithSubscriptionProvider": {
            "target": "smithy.api#String",
            "traits": {

    "smithy.api#documentation": "<p>Indicates that your instance uses a BYOL license subscription from \n\t\t\ta
third-party Linux subscription provider that you've registered with License Manager.</p>"
            }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>Details discovered information about a running instance using Linux
subscriptions.</p>"
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#InstanceList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Instance"
```

```
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException": {
        "type": "structure",
        "members": {
          "message": {
            "target": "smithy.api#String"
          }
        },
        "traits": {
          "smithy.api#documentation":
"<p>An exception occurred with the service.</p>",
          "smithy.api#error": "server"
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#LicenseManagerLinuxSubscriptions": {
        "type": "service",
        "version": "2018-05-10",
        "operations": [
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#DeregisterSubscriptionProvider"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#GetRegisteredSubscriptionProvider"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettings"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstances"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptions"
           },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListRegisteredSubscriptionProviders"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListTagsForResource"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#RegisterSubscriptionProvider"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#TagResource"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UntagResource"
```

```
        },
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettings"
        }
      ],
      "traits": {
        "aws.api#service": {
          "sdkId": "License Manager Linux Subscriptions",
           "arnNamespace": "license-manager-linux-subscriptions",
          "cloudTrailEventSource": "license-manager-linux-subscriptions.amazonaws.com"
        },
        "aws.auth#sigv4": {
          "name": "license-manager-linux-subscriptions"
        },
        "aws.protocols#restJson1": {},
        "smithy.api#cors": {
          "additionalAllowedHeaders": [
            "*",
            "content-type",
            "x-amz-content-sha256",
            "x-amz-user-agent",
            "x-amzn-platform-id",
            "x-amzn-trace-id"
          ],
          "additionalExposedHeaders": [
            "x-amzn-errortype",
            "x-amzn-requestid",
            "x-amzn-trace-id"
          ]
        },
        "smithy.api#documentation": "<p>With License Manager,
 you can discover and track your commercial Linux subscriptions on running\n      Amazon EC2 instances.</p>",
        "smithy.api#title": "AWS License Manager Linux Subscriptions",
        "smithy.rules#endpointRuleSet": {
          "version": "1.0",
          "parameters": {
            "Region": {
              "builtIn": "AWS::Region",
              "required": false,
              "documentation": "The AWS region used to dispatch the request.",
              "type": "String"
            },
            "UseDualStack": {
              "builtIn": "AWS::UseDualStack",
              "required": true,
              "default": false,
              "documentation": "When true, use the dual-stack endpoint. If the configured endpoint does not
 support dual-stack, dispatching the request MAY return an error.",
```

```
            "type": "Boolean"
        },
        "UseFIPS": {
          "builtIn": "AWS::UseFIPS",
          "required": true,
          "default": false,
          "documentation": "When true, send this request to the FIPS-compliant regional endpoint. If the configured endpoint does not have a FIPS compliant endpoint, dispatching the request will return an error.",
          "type": "Boolean"
        },
        "Endpoint": {
          "builtIn": "SDK::Endpoint",
          "required": false,
          "documentation": "Override the endpoint used to send this request",
          "type": "String"
        }
      },
      "rules": [
        {
          "conditions": [
            {
              "fn": "isSet",
              "argv": [
                {
                  "ref": "Endpoint"
                }
              ]
            }
          ],
          "rules": [
            {
              "conditions": [
                {
                  "fn": "booleanEquals",
                  "argv": [
                    {
                      "ref": "UseFIPS"
                    },
                    true
                  ]
                }

    ],
                "error": "Invalid Configuration: FIPS and custom endpoint are not supported",
                "type": "error"
            },
            {
              "conditions": [],
```

```
                "rules": [
                    {
                        "conditions": [
                            {
                                "fn": "booleanEquals",
                                "argv": [
                                    {
                                        "ref": "UseDualStack"
                                    },
                                    true
                                ]

}
                        ],
                        "error": "Invalid Configuration: Dualstack and custom endpoint are not supported",
                        "type": "error"
                    },
                    {
                        "conditions": [],
                        "endpoint": {
                            "url": {
                                "ref": "Endpoint"
                            },
                            "properties": {},
                            "headers": {}
                        },
                        "type": "endpoint"
                    }
                ],
                "type": "tree"

            }
            ],
            "type": "tree"
        },
        {
            "conditions": [],
            "rules": [
                {
                    "conditions": [
                        {
                            "fn": "isSet",
                            "argv": [
                                {
                                    "ref": "Region"
                                }
                            ]
                        }
```

```
                ],
                "rules": [
                  {
                    "conditions": [
                      {

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                        "argv": [
                          {
                            "ref": "Region"
                          }
                        ],
                        "assign": "PartitionResult"
                      }
                    ],
                    "rules": [
                      {
                        "conditions": [
                          {
                            "fn": "booleanEquals",
                            "argv": [
                              {

                          "ref": "UseFIPS"
                              },
                              true
                            ]
                          },
                          {
                            "fn": "booleanEquals",
                            "argv": [
                              {
                                "ref": "UseDualStack"
                              },
                              true
                            ]
                          }

  ],
                        "rules": [
                          {
                            "conditions": [
                              {
                                "fn": "booleanEquals",
                                "argv": [
                                  true,
                                  {
                                    "fn": "getAttr",
```

```
                                        "argv": [
                                            {
                                                "ref": "PartitionResult"

                    },
                                                "supportsFIPS"
                                            ]
                                        }
                                    ]
                                },
                                {
                                    "fn": "booleanEquals",
                                    "argv": [
                                        true,
                                        {
                                            "fn": "getAttr",
                                            "argv": [

                                             {
                                                    "ref": "PartitionResult"
                                                },
                                                "supportsDualStack"
                                            ]
                                        }
                                    ]
                                }
                            ],
                            "rules": [
                                {
                                    "conditions": [],

        "rules": [
                                        {
                                            "conditions": [],
                                            "endpoint": {
                                                "url": "https://license-manager-linux-subscriptions-
fips.{Region}.{PartitionResult#dualStackDnsSuffix}",
                                                "properties": {},
                                                "headers": {}
                                            },
                                            "type": "endpoint"
                                        }
                                    ],

                    "type": "tree"
                                }
                            ],
                            "type": "tree"
```

```
                },
                {
                  "conditions": [],
                  "error": "FIPS and DualStack are enabled, but this partition does not support
one or both",
                  "type": "error"
                }
              ],
              "type": "tree"
            },
            {

        "conditions": [
                {
                  "fn": "booleanEquals",
                  "argv": [
                    {
                      "ref": "UseFIPS"
                    },
                    true
                  ]
                }
              ],
              "rules": [
                {
                  "conditions": [
                    {

              "fn": "booleanEquals",
                        "argv": [
                          {
                            "fn": "getAttr",
                            "argv": [
                              {
                                "ref": "PartitionResult"
                              },
                              "supportsFIPS"
                            ]
                          },
                          true

                      ]
                    }
                  ],
                  "rules": [
                    {
                      "conditions": [],
                      "rules": [
```

```
                                        {
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fips.{Region}.{PartitionResult#dnsSuffix}",

    "properties": {},
                                                "headers": {}
                                            },
                                            "type": "endpoint"
                                        }
                                    ],
                                    "type": "tree"
                                }
                            ],
                            "type": "tree"
                        },
                        {
                            "conditions": [],
                            "error": "FIPS is enabled
but this partition does not support FIPS",
                            "type": "error"
                        }
                    ],
                    "type": "tree"
                },
                {
                    "conditions": [
                        {
                            "fn": "booleanEquals",
                            "argv": [
                                {
                                    "ref": "UseDualStack"
                                },
                                true

            ]
                        }
                    ],
                    "rules": [
                        {
                            "conditions": [
                                {
                                    "fn": "booleanEquals",
                                    "argv": [
                                        true,
                                        {
                                            "fn": "getAttr",
```

```
                                        "argv": [
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                                            "ref": "PartitionResult"
                                            },
                                            "supportsDualStack"
                                        ]
                                    }
                                ]
                            }
                        ],
                        "rules": [
                            {
                                "conditions": [],
                                "rules": [

        {
                                        "conditions": [],
                                        "endpoint": {
                                            "url": "https://license-manager-linux-
subscriptions.{Region}.{PartitionResult#dualStackDnsSuffix}",
                                            "properties": {},
                                            "headers": {}
                                        },
                                        "type": "endpoint"
                                    }
                                ],
                                "type": "tree"

                    }
                            ],
                            "type": "tree"
                        },
                        {
                            "conditions": [],
                            "error": "DualStack is enabled but this partition does not support DualStack",
                            "type": "error"
                        }
                    ],
                    "type": "tree"
                },
                {
                    "conditions": [],
                    "rules": [
                        {
                            "conditions": [],
                            "endpoint": {
                                "url": "https://license-manager-linux-
```

```
subscriptions.{Region}.{PartitionResult#dnsSuffix}",
                                        "properties": {},
                                        "headers": {}
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                                }
                            ],
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                        }
                    ],
                    "type": "tree"
                }
            ],
            "type": "tree"
        },
        {
            "conditions": [],
            "error": "Invalid Configuration: Missing Region",
            "type": "error"
        }
    ],
    "type": "tree"
}
]
},
"smithy.rules#endpointTests": {
"testCases": [
{
"documentation": "For region us-east-1 with FIPS enabled and DualStack enabled",
"expect": {
"endpoint": {
"url": "https://license-manager-linux-subscriptions-fips.us-east-1.api.aws"

}
},
"params": {
"Region": "us-east-1",
"UseFIPS": true,
"UseDualStack": true
}
},
{
"documentation": "For region us-east-1 with FIPS enabled and DualStack disabled",
"expect": {
"endpoint": {
"url": "https://license-manager-linux-subscriptions-fips.us-east-1.amazonaws.com"
}
},
```

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            "params": {
              "Region": "us-east-1",
              "UseFIPS": true,
              "UseDualStack": false
            }
          },
          {

        "documentation": "For region us-east-1 with FIPS disabled and DualStack enabled",
            "expect": {
              "endpoint": {
                "url": "https://license-manager-linux-subscriptions.us-east-1.api.aws"
              }
            },
            "params": {
              "Region": "us-east-1",
              "UseFIPS": false,
              "UseDualStack": true
            }
          },
          {
            "documentation": "For region us-east-1 with FIPS disabled and DualStack disabled",
            "expect": {
              "endpoint": {
                "url": "https://license-manager-linux-subscriptions.us-east-1.amazonaws.com"
              }

      },
            "params": {
              "Region": "us-east-1",
              "UseFIPS": false,
              "UseDualStack": false
            }
          },
          {
            "documentation": "For region cn-north-1 with FIPS enabled and DualStack enabled",
            "expect": {
              "endpoint": {
                "url": "https://license-manager-linux-subscriptions-fips.cn-north-
1.api.amazonwebservices.com.cn"
              }
            },
            "params": {
              "Region": "cn-north-1",
              "UseFIPS": true,
              "UseDualStack": true
            }
          },
```

```
                {

  "documentation": "For region cn-north-1 with FIPS enabled and DualStack disabled",
                    "expect": {
                      "endpoint": {
                        "url": "https://license-manager-linux-subscriptions-fips.cn-north-1.amazonaws.com.cn"
                      }
                    },
                    "params": {
                      "Region": "cn-north-1",
                      "UseFIPS": true,
                      "UseDualStack": false
                    }
                  },
                  {
                    "documentation": "For region cn-north-1 with FIPS disabled and DualStack enabled",
                    "expect": {
                      "endpoint": {
                        "url": "https://license-manager-linux-subscriptions.cn-north-1.api.amazonwebservices.com.cn"
                      }
                     },
                    "params": {
                      "Region": "cn-north-1",
                      "UseFIPS": false,
                      "UseDualStack": true
                    }
                  },
                  {
                    "documentation": "For region cn-north-1 with FIPS disabled and DualStack disabled",
                    "expect": {
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                        "url": "https://license-manager-linux-subscriptions.cn-north-1.amazonaws.com.cn"
                      }
                    },
                    "params": {
                      "Region": "cn-north-1",
                      "UseFIPS": false,
                      "UseDualStack": false
                    }
                  },
                  {

   "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack enabled",
                    "expect": {
                      "endpoint": {
                        "url": "https://license-manager-linux-subscriptions-fips.us-gov-east-1.api.aws"
                      }
                    },
```

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        "UseFIPS": true,
        "UseDualStack": true
      }
    },
    {
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      "expect": {
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          "url": "https://license-manager-linux-subscriptions-fips.us-gov-east-1.amazonaws.com"
        }

     },
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        "UseFIPS": true,
        "UseDualStack": false
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    },
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      "expect": {
        "endpoint": {
          "url": "https://license-manager-linux-subscriptions.us-gov-east-1.api.aws"
        }
      },
      "params": {
        "Region": "us-gov-east-1",
        "UseFIPS": false,
        "UseDualStack": true
      }
    },
    {

"documentation": "For region us-gov-east-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-linux-subscriptions.us-gov-east-1.amazonaws.com"
        }
      },
      "params": {
        "Region": "us-gov-east-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {
```

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            "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack enabled",
            "expect": {
              "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
            },
            "params": {

          "Region": "us-iso-east-1",
              "UseFIPS": true,
              "UseDualStack": true
            }
          },
          {
            "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack disabled",
            "expect": {
              "endpoint": {
                "url": "https://license-manager-linux-subscriptions-fips.us-iso-east-1.c2s.ic.gov"
              }
            },
            "params": {
              "Region": "us-iso-east-1",
              "UseFIPS": true,
              "UseDualStack": false
            }
          },
          {
            "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack
enabled",
            "expect": {
              "error": "DualStack is enabled but this partition does not support DualStack"
            },
            "params": {
              "Region": "us-iso-east-1",
              "UseFIPS": false,
              "UseDualStack": true
            }
          },
          {
            "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack disabled",
            "expect": {
              "endpoint": {
                "url": "https://license-manager-linux-subscriptions.us-iso-east-1.c2s.ic.gov"
              }
            },
            "params": {
              "Region": "us-iso-east-1",
              "UseFIPS":
false,
              "UseDualStack": false
```

```
    }
  },
  {
    "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack enabled",
    "expect": {
      "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
    },
    "params": {
      "Region": "us-isob-east-1",
      "UseFIPS": true,
      "UseDualStack": true
    }
  },
  {
    "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack disabled",
    "expect": {
      "endpoint": {
        "url": "https://license-manager-linux-subscriptions-fips.us-isob-east-1.sc2s.sgov.gov"
       }
    },
    "params": {
      "Region": "us-isob-east-1",
      "UseFIPS": true,
      "UseDualStack": false
    }
  },
  {
    "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack enabled",
    "expect": {
      "error": "DualStack is enabled but this partition does not support DualStack"
    },
    "params": {
      "Region": "us-isob-east-1",
      "UseFIPS": false,
      "UseDualStack": true
    }
  },
  {

   "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack disabled",
    "expect": {
      "endpoint": {
        "url": "https://license-manager-linux-subscriptions.us-isob-east-1.sc2s.sgov.gov"
      }
    },
    "params": {
      "Region": "us-isob-east-1",
      "UseFIPS": false,
```

```
            "UseDualStack": false
          }
        },
        {
          "documentation": "For custom endpoint with region set and fips disabled and dualstack disabled",
          "expect": {
            "endpoint": {
              "url": "https://example.com"
            }

    },
          "params": {
            "Region": "us-east-1",
            "UseFIPS": false,
            "UseDualStack": false,
            "Endpoint": "https://example.com"
          }
        },
        {
          "documentation": "For custom endpoint with region not set and fips disabled and dualstack
disabled",
          "expect": {
            "endpoint": {
              "url": "https://example.com"
            }
          },
          "params": {
            "UseFIPS": false,
            "UseDualStack": false,
            "Endpoint": "https://example.com"
          }
        },
        {

          "documentation": "For custom endpoint with fips enabled and dualstack disabled",
          "expect": {
            "error": "Invalid Configuration: FIPS and custom endpoint are not supported"
          },
          "params": {
            "Region": "us-east-1",
            "UseFIPS": true,
            "UseDualStack": false,
            "Endpoint": "https://example.com"
          }
        },
        {
          "documentation": "For custom endpoint with fips disabled and dualstack enabled",
          "expect": {
```

```
                    "error": "Invalid Configuration: Dualstack and custom endpoint are not supported"
                  },
                  "params": {

 "Region": "us-east-1",
                    "UseFIPS": false,
                    "UseDualStack": true,
                    "Endpoint": "https://example.com"
                  }
                },
                {
                  "documentation": "Missing region",
                  "expect": {
                    "error": "Invalid Configuration: Missing Region"
                  }
                }
              ],
              "version": "1.0"
            }
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscovery": {
          "type": "string",
          "traits": {
            "smithy.api#enum": [
              {
                "name": "Enabled",
                "value": "Enabled",
                "documentation": "Enabled LinuxSubscriptionsDiscovery"

       },
              {
                "name": "Disabled",
                "value": "Disabled",
                "documentation": "Disabled LinuxSubscriptionsDiscovery"
              }
            ]
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscoverySettings": {
          "type": "structure",
          "members": {
            "SourceRegions": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringList",
              "traits": {
                "smithy.api#documentation": "<p>The Regions in which to discover data for Linux
subscriptions.</p>",
                "smithy.api#required": {}
```

```
            }
          },
          "OrganizationIntegration": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#OrganizationIntegration",
            "traits": {
              "smithy.api#documentation":
"<p>Details if you have enabled resource discovery across your accounts in Organizations.</p>",
              "smithy.api#required": {}
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Lists the settings defined for discovering Linux subscriptions.</p>"
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstances": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstancesRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstancesResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
          },

  {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Lists the running Amazon EC2 instances that were discovered with
commercial Linux\n      subscriptions.</p>",
          "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/subscription/ListLinuxSubscriptionInstances"
          },
          "smithy.api#idempotent": {},
          "smithy.api#paginated": {
            "inputToken": "NextToken",
            "outputToken": "NextToken",
            "pageSize": "MaxResults",
```

```
            "items": "Instances"
          }
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstancesRequest":
{
        "type": "structure",
        "members": {
          "Filters": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#FilterList",
            "traits": {
              "smithy.api#documentation": "<p>An array of structures that you can use to filter the results by your
specified criteria. \n    \tFor example, you can specify <code>Region</code> in the <code>Name</code>, with the
\n    \t<code>contains</code> operator to list all subscriptions that match a partial string in the \n
\t<code>Value</code>, such as <code>us-west</code>.</p>\n          <p>For each filter, you can specify one of the
following values for the <code>Name</code> key \n    \tto streamline results:</p>\n          <ul>\n          <li>\n
  <p>\n              <code>AccountID</code>\n            </p>\n          </li>\n          <li>\n            <p>\n
    <code>AmiID</code>\n            </p>\n          </li>\n          <li>\n            <p>\n
<code>DualSubscription</code>\n            </p>\n          </li>\n          <li>\n            <p>\n
<code>InstanceID</code>\n            </p>\n          </li>\n          <li>\n            <p>\n
<code>InstanceType</code>\n            </p>\n          </li>\n          <li>\n            <p>\n
<code>ProductCode</code>\n            </p>\n          </li>\n          <li>\n            <p>\n
<code>Region</code>\n            </p>\n          </li>\n          <li>\n            <p>\n
<code>Status</code>\n            </p>\n          </li>\n          <li>\n            <p>\n
<code>UsageOperation</code>\n            </p>\n          </li>\n        </ul>\n        <p>For each filter, you can use
one of the following <code>Operator</code>
 values to \n  \t\tdefine the behavior of the filter:</p>\n          <ul>\n          <li>\n            <p>\n
<code>contains</code>\n            </p>\n          </li>\n          <li>\n            <p>\n
<code>equals</code>\n            </p>\n          </li>\n          <li>\n            <p>\n
<code>Notequal</code>\n            </p>\n          </li>\n        </ul>"
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#BoxInteger",
            "traits": {
              "smithy.api#documentation": "<p>The maximum items to return in a request.</p>"
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>A token to specify where to
 start paginating. This \n\tis the nextToken from a previously truncated response.</p>",
              "smithy.api#length": {
                "min": 1,
                "max": 16384
              }
            }
```

```
            }
        },
        "traits": {
            "smithy.api#documentation": "NextToken length limit is half of ddb accepted limit.\nIncrease this limit if parameters in request increases."
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstancesResponse": {
        "type": "structure",
        "members": {
            "Instances": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InstanceList",
                "traits": {
                    "smithy.api#documentation": "<p>An array that contains instance objects.</p>"
                }
            },
            "NextToken": {

     "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The next token used for paginated responses. When this \n\tfield isn't empty, there are additional elements that the service hasn't \n\tincluded in this request. Use this token with the next request to retrieve \n\tadditional objects.</p>"
                }
            }
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptions": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionsRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionsResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
            },
             {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
            },
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists the Linux subscriptions that have been discovered. If you have
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linked your\n organization, the returned results will include data aggregated across your accounts in\n Organizations. ",
"smithy.api#http": {
"code": 200,
"method": "POST",
"uri": "/subscription/ListLinuxSubscriptions"
},
"smithy.api#idempotent": {},
"smithy.api#paginated": {
"inputToken": "NextToken",
"outputToken": "NextToken",
"pageSize": "MaxResults",

"items": "Subscriptions"
}
}
},
"com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionsRequest": {
"type": "structure",
"members": {
"Filters": {
"target": "com.amazonaws.licensemanagerlinuxsubscriptions#FilterList",
"traits": {
"smithy.api#documentation": " An array of structures that you can use to filter the results to those that match one or\n more sets of key-value pairs that you specify. For example, you can filter by the name of\n <code>Subscription</code> with an optional operator to see subscriptions that match,\n partially match, or don't match a certain subscription's name. \n The valid names for this filter are: \n \n \n \n <code>Subscription</code>\n \n \n \n The
valid Operators for this filter are: \n \n \n \n <code>contains</code>\n \n \n \n \n <code>equals</code>\n \n \n \n \n <code>Notequal</code>\n \n \n "
}
},
"MaxResults": {
"target": "com.amazonaws.licensemanagerlinuxsubscriptions#BoxInteger",
"traits": {
"smithy.api#documentation": " The maximum items to return in a request. "
}
},
"NextToken": {
"target": "smithy.api#String",
"traits": {
"smithy.api#documentation": " A token to specify where to start paginating. This \n\tis the nextToken from a previously truncated response. ",
"smithy.api#length": {
"min": 1,

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                    "max": 16384
                }
            }
        }
    },
    "traits": {
        "smithy.api#documentation": "NextToken length limit is half of ddb accepted limit.\nIncrease this limit if parameters in request increases."
    }
},
"com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionsResponse": {
    "type": "structure",
    "members": {
        "Subscriptions": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionList",
            "traits": {
                "smithy.api#documentation": "<p>An array that contains subscription objects.</p>"
            }
        },
        "NextToken": {
            "target": "smithy.api#String",
             "traits": {
                "smithy.api#documentation": "<p>The next token used for paginated responses. When this \n\tfield isn't empty, there are additional elements that the service hasn't \n\tincluded in this request. Use this token with the next request to retrieve \n\tadditional objects.</p>"
            }
        }
    }
},
"com.amazonaws.licensemanagerlinuxsubscriptions#ListRegisteredSubscriptionProviders": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListRegisteredSubscriptionProvidersRequest"
    },
    "output": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListRegisteredSubscriptionProvidersResponse"
    },
    "errors": [
        {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"

        },
        {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
        },
        {
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            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>List Bring Your Own License (BYOL) subscription registration resources for your account.</p>",
          "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/subscription/ListRegisteredSubscriptionProviders"
          },
          "smithy.api#idempotent": {},
          "smithy.api#paginated": {
            "inputToken": "NextToken",
            "outputToken": "NextToken",
            "pageSize": "MaxResults",
            "items": "RegisteredSubscriptionProviders"
          }
        }

    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ListRegisteredSubscriptionProvidersRequest": {
      "type": "structure",
      "members": {
        "SubscriptionProviderSources": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderSourceList",
          "traits": {
            "smithy.api#documentation": "<p>To filter your results, specify which subscription providers to return \n\t\t\tin the list.</p>"
          }
        },
        "MaxResults": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#BoxInteger",
          "traits": {
            "smithy.api#documentation": "<p>The maximum items to return in a request.</p>",
            "smithy.api#range": {
              "min": 1,
              "max": 100
            }
          }

  },
        "NextToken": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>A token to specify where to start paginating. This \n\tis the nextToken from a previously truncated response.</p>"
          }
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            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ListRegisteredSubscriptionProvidersResponse": {
        "type": "structure",
        "members": {
            "RegisteredSubscriptionProviders": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#RegisteredSubscriptionProviderList",
                "traits": {
                    "smithy.api#documentation": "<p>The list of BYOL registration resources that fit the criteria
\n\t\t\tyou specified in the request.</p>"
                }
            },

            "NextToken": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The next token used for paginated responses. When this \n\tfield
isn't empty, there are additional elements that the service hasn't \n\tincluded in this request. Use this token with the
next request to retrieve \n\tadditional objects.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ListTagsForResource": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListTagsForResourceRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListTagsForResourceResponse"
        },
        "errors": [
            {

    "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
            },
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ResourceNotFoundException"
            },
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
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            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>List the metadata tags that are assigned to the \n\t\t\tspecified Amazon Web Services resource.</p>",
            "smithy.api#http": {
                "method": "GET",
                "uri": "/tags/{resourceArn}"
            },
            "smithy.api#readonly": {}
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ListTagsForResourceRequest": {
        "type": "structure",
        "members": {
            "resourceArn": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn",
                 "traits": {
                    "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the resource for which to list metadata tags.</p>",
                    "smithy.api#httpLabel": {},
                    "smithy.api#required": {}
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ListTagsForResourceResponse": {
        "type": "structure",
        "members": {
            "tags": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Tags",
                "traits": {
                    "smithy.api#documentation": "<p>The metadata tags for the requested resource.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#output": {}
         }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#Operator": {
        "type": "string",
        "traits": {
            "smithy.api#enum": [
                {
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                "name": "EQUAL",
                "value": "Equal",
                "documentation": "Equal operator"
              },
              {
                "name": "NOT_EQUAL",
                "value": "NotEqual",
                "documentation": "Not equal operator"
              },
              {
                "name": "CONTAINS",
                "value": "Contains",
                "documentation": "Contains operator"
              }
            ],
            "smithy.api#length": {
              "min": 1,
              "max": 20
            }
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#OrganizationIntegration":
{
          "type": "string",
          "traits": {
            "smithy.api#enum": [
              {
                "name": "Enabled",
                "value": "Enabled",
                "documentation": "Enabled OrganizationIntegration"
              },
              {
                "name": "Disabled",
                "value": "Disabled",
                "documentation": "Disabled OrganizationIntegration"
              }
            ]
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#ProductCodeList": {
          "type": "list",
          "member": {
            "target": "smithy.api#String"
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#RegisterSubscriptionProvider": {
          "type": "operation",
          "input": {
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            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#RegisterSubscriptionProviderRequest"
          },
          "output": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#RegisterSubscriptionProviderResponse"
          },
          "errors": [
            {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
            },
            {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
            },
            {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Register the supported third-party subscription provider for your Bring
Your Own License (BYOL) subscription.</p>",
            "smithy.api#http": {
              "code": 200,
              "method": "POST",
              "uri": "/subscription/RegisterSubscriptionProvider"

            },
            "smithy.api#idempotent": {}
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#RegisterSubscriptionProviderRequest": {
          "type": "structure",
          "members": {
            "SubscriptionProviderSource": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderSource",
              "traits": {
                "smithy.api#documentation": "<p>The supported Linux subscription provider to register.</p>",
                "smithy.api#required": {}
              }
            },
            "SecretArn": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SecretArn",
              "traits": {
                "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the secret where you've
stored your subscription provider's access token. For \n\t\t\tRHEL subscriptions managed through the
 Red Hat Subscription Manager (RHSM), the secret contains \n\t\t\tyour Red Hat Offline token.</p>",
                "smithy.api#required": {}
              }
            },
            "Tags": {
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            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Tags",
            "traits": {
              "smithy.api#documentation": "<p>The metadata tags to assign to your registered Linux subscription
provider \n\t\t\tresource.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#RegisterSubscriptionProviderResponse": {
        "type": "structure",
        "members": {
          "SubscriptionProviderSource": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderSource",
            "traits": {
              "smithy.api#documentation":
 "<p>The Linux subscription provider that you registered.</p>"
            }
          },
          "SubscriptionProviderArn": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the Linux subscription
provider resource that you registered.</p>"
            }
          },
          "SubscriptionProviderStatus": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderStatus",
            "traits": {
              "smithy.api#documentation": "<p>Indicates the status of the registration action for the Linux
subscription provider \n\t\t\tthat you requested.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#RegisteredSubscriptionProvider":
 {
        "type": "structure",
        "members": {
          "SubscriptionProviderArn": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn",
            "traits": {
              "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the Linux subscription
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provider resource that you registered. "
            }
          },
          "SubscriptionProviderSource": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderSource",
            "traits": {
              "smithy.api#documentation": " A supported third-party Linux subscription provider. License Manager currently supports \n\t\t\tRed Hat subscriptions. "
            }
          },
          "SecretArn": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SecretArn",
            "traits": {
              "smithy.api#documentation": " The Amazon Resource Name (ARN) of the Secrets Manager secret that stores your registered Linux subscription provider \n\t\t\taccess token. For RHEL account subscriptions, this is the offline token. "
            }
          },
          "SubscriptionProviderStatus": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderStatus",
            "traits": {
              "smithy.api#documentation": " Indicates the status of your registered Linux subscription provider access token \n\t\t\tfrom the last time License Manager retrieved subscription data. For RHEL account subscriptions, \n\t\t\tthis is the status of the offline token. "
            }
          },
          "SubscriptionProviderStatusMessage": {
            "target": "smithy.api#String",
            "traits":
{
              "smithy.api#documentation": " A detailed message that's associated with your BYOL subscription \n\t\t\tprovider token status. "
            }
          },
          "LastSuccessfulDataRetrievalTime": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": " The timestamp from the last time that License Manager accessed third-party subscription data \n\t\t\tfor your account from your registered Linux subscription provider. "
            }
          }
        },
        "traits": {
          "smithy.api#documentation": " A third-party provider for operating system (OS) platform software and license \n\t\t\tsubscriptions, such as Red Hat. When you register a third-party Linux subscription \n\t\t\tprovider, License Manager can get subscription data from the registered provider. "
        }
      },

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    "com.amazonaws.licensemanagerlinuxsubscriptions#RegisteredSubscriptionProviderList":
{
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#RegisteredSubscriptionProvider"
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ResourceNotFoundException": {
      "type": "structure",
      "members": {
        "message": {
          "target": "smithy.api#String"
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>Unable to find the requested Amazon Web Services resource.</p>",
        "smithy.api#error": "client"
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#SecretArn": {
      "type": "string",
      "traits": {
        "smithy.api#pattern": "^arn:[a-z0-9-\\.]{1,63}:secretsmanager:[a-z0-9-\\.]{0,63}:[a-z0-9-
\\.]{0,63}:secret:[^/]{1,1023}$"

  }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#Status": {
      "type": "string",
      "traits": {
        "smithy.api#enum": [
          {
            "name": "InProgress",
            "value": "InProgress",
            "documentation": "InProgress status"
          },
          {
            "name": "Completed",
            "value": "Completed",
            "documentation": "Completed status"
          },
          {
            "name": "Successful",
            "value": "Successful",
            "documentation": "Successful status"
          },
          {
            "name": "Failed",
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                "value": "Failed",
                "documentation": "Failed status"
              }
            ]
          }
        },

      "com.amazonaws.licensemanagerlinuxsubscriptions#StringList": {
        "type": "list",
        "member": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#length": {
              "min": 1,
              "max": 100
            }
          }
        },
        "traits": {
          "smithy.api#length": {
            "min": 1,
            "max": 100
          },
          "smithy.api#uniqueItems": {}
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#StringMap": {
        "type": "map",
        "key": {
          "target": "smithy.api#String"
        },
        "value": {
          "target": "smithy.api#String"
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#Subscription": {
        "type": "structure",
        "members": {
          "Name":
{
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The name of the subscription.</p>"
            }
          },
          "Type": {
            "target": "smithy.api#String",
            "traits": {
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                "smithy.api#documentation": "<p>The type of subscription. The type can be subscription-included with Amazon EC2, Bring Your Own\n      Subscription model (BYOS), or from the Amazon Web Services Marketplace. Certain subscriptions may use licensing from the\n      Amazon Web Services Marketplace as well as OS licensing from Amazon EC2 or BYOS.</p>"
              }
            },
            "InstanceCount": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#BoxLong",
              "traits": {
                "smithy.api#documentation": "<p>The total amount of running instances using this subscription.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>An object which details a discovered Linux subscription.</p>"
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionList": {
          "type": "list",
          "member": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Subscription"
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn": {
          "type": "string",
          "traits": {
            "smithy.api#pattern": "^arn:[a-z0-9-\\.]{1,63}:[a-z0-9-\\.]{1,63}:[a-z0-9-\\.]{1,63}:[a-z0-9-\\.]{1,63}:[a-z0-9-\\.]{1,510}/[a-z0-9-\\.]{1,510}$"
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderSource": {
          "type": "string",
          "traits": {
            "smithy.api#enum": [

 {
                "name": "RedHat",
                "value": "RedHat",
                "documentation": "RedHat subscription provider namespace"
              }
            ]
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderSourceList": {
          "type": "list",
          "member": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderSource"
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    }
  },
  "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderStatus": {
    "type": "string",
    "traits": {
      "smithy.api#enum": [
        {
          "name": "ACTIVE",
          "value": "ACTIVE",
          "documentation": "ACTIVE status"
        },
        {
          "name": "INVALID",
          "value": "INVALID",

"documentation": "INVALID status"
        },
        {
          "name": "PENDING",
          "value": "PENDING",
          "documentation": "PENDING status"
        }
      ]
    }
  },
  "com.amazonaws.licensemanagerlinuxsubscriptions#TagKeyList": {
    "type": "list",
    "member": {
      "target": "smithy.api#String"
    },
    "traits": {
      "smithy.api#length": {
        "min": 0,
        "max": 50
      },
      "smithy.api#sensitive": {}
    }
  },
  "com.amazonaws.licensemanagerlinuxsubscriptions#TagResource": {
    "type": "operation",
    "input": {
      "target": "com.amazonaws.licensemanagerlinuxsubscriptions#TagResourceRequest"
    },
    "output": {
      "target": "com.amazonaws.licensemanagerlinuxsubscriptions#TagResourceResponse"
     },
    "errors": [
      {
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            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ResourceNotFoundException"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Add metadata tags to the specified Amazon Web Services
resource.</p>",
          "smithy.api#http": {
            "method": "PUT",
            "uri": "/tags/{resourceArn}"
          },
          "smithy.api#idempotent": {}
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#TagResourceRequest": {
        "type": "structure",
        "members":
 {
          "resourceArn": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn",
            "traits": {
              "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the Amazon Web Services
resource to which to add the specified \n\t\t\tmetadata tags.</p>",
              "smithy.api#httpLabel": {},
              "smithy.api#required": {}
            }
          },
          "tags": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Tags",
            "traits": {
              "smithy.api#documentation": "<p>The metadata tags to assign to the Amazon Web Services resource.
Tags are \n\t\t\tformatted as key value pairs.</p>",
              "smithy.api#required": {}
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }

      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#TagResourceResponse": {
        "type": "structure",
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        "members": {},
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#Tags": {
        "type": "map",
        "key": {
            "target": "smithy.api#String"
        },
        "value": {
            "target": "smithy.api#String"
        },
        "traits": {
            "smithy.api#length": {
                "min": 0,
                "max": 50
            },
            "smithy.api#sensitive": {}
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException": {
        "type": "structure",
        "members": {
            "message": {
                "target": "smithy.api#String"
            }
        },
        "traits": {
            "smithy.api#documentation":
"<p>The request was denied due to request throttling.</p>",
            "smithy.api#error": "client"
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#UntagResource": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UntagResourceRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UntagResourceResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
            },
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ResourceNotFoundException"
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            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Remove one or more metadata tag from the specified Amazon Web
Services resource.</p>",
             "smithy.api#http": {
                "method": "DELETE",
                "uri": "/tags/{resourceArn}"
            },
            "smithy.api#idempotent": {}
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#UntagResourceRequest": {
        "type": "structure",
        "members": {
            "resourceArn": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn",
                "traits": {
                    "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the Amazon Web Services
resource to remove the metadata tags from.</p>",
                    "smithy.api#httpLabel": {},
                    "smithy.api#required": {}
                }
            },
            "tagKeys": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#TagKeyList",
                "traits": {

              "smithy.api#documentation": "<p>A list of metadata tag keys to remove from the requested
\n\t\t\tresource.</p>",
                    "smithy.api#httpQuery": "tagKeys",
                    "smithy.api#required": {}
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#UntagResourceResponse": {
        "type": "structure",
        "members": {},
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettings": {
        "type": "operation",
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      "input": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettingsRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettingsResponse"

    },
      "errors": [
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
        },
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
        },
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Updates the service settings for Linux subscriptions.</p>",
        "smithy.api#http": {
          "code": 200,
          "method": "POST",
          "uri": "/subscription/UpdateServiceSettings"
        },
        "smithy.api#idempotent": {}
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettingsRequest": {
      "type": "structure",
      "members": {
        "LinuxSubscriptionsDiscovery": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscovery",
          "traits": {
            "smithy.api#documentation": "<p>Describes if the discovery of Linux subscriptions is enabled.</p>",
            "smithy.api#required": {}
          }
        },
        "LinuxSubscriptionsDiscoverySettings": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscoverySettings",
          "traits": {
            "smithy.api#documentation": "<p>The settings defined for Linux subscriptions discovery. The
settings include if Organizations\n      integration has been enabled, and which Regions data will be aggregated
from.</p>",
            "smithy.api#required": {}
          }
        },
        "AllowUpdate": {
```

```
            "target":
 "smithy.api#Boolean",
            "traits": {
               "smithy.api#documentation": "<p>Describes if updates are allowed to the service settings for Linux
subscriptions. If you\n      allow updates, you can aggregate Linux subscription data in more than one home
Region.</p>"
            }
         }
      }
   },
   "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettingsResponse": {
      "type": "structure",
      "members": {
         "LinuxSubscriptionsDiscovery": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscovery",
            "traits": {
               "smithy.api#documentation": "<p>Lists if discovery has been enabled for Linux subscriptions.</p>"
            }
         },
         "LinuxSubscriptionsDiscoverySettings": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscoverySettings",
             "traits": {
               "smithy.api#documentation": "<p>The settings defined for Linux subscriptions discovery. The
settings include if Organizations\n      integration has been enabled, and which Regions data will be aggregated
from.</p>"
            }
         },
         "Status": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Status",
            "traits": {
               "smithy.api#documentation": "<p>Indicates the status of Linux subscriptions settings being
applied.</p>"
            }
         },
         "StatusMessage": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringMap",
            "traits": {
               "smithy.api#documentation": "<p>A message which details the Linux subscriptions service settings
current status.</p>"
            }

   },
         "HomeRegions": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringList",
            "traits": {
               "smithy.api#documentation": "<p>The Region in which License Manager displays the aggregated
data for Linux\n      subscriptions.</p>"
            }
```

```
            }
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException": {
          "type": "structure",
          "members": {
            "message": {
              "target": "smithy.api#String"
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>The provided input is not valid. Try your request again.</p>",
            "smithy.api#error": "client"
          }
        }
      }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Deletes the specified license.
func (c *Client) DeleteLicense(ctx context.Context, params *DeleteLicenseInput, optFns ...func(*Options))
(*DeleteLicenseOutput, error) {
 if params == nil {
  params = &DeleteLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "DeleteLicense", params, optFns,
c.addOperationDeleteLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*DeleteLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}
```

```
type DeleteLicenseInput struct {

 // Amazon Resource Name (ARN) of the license.
 //
 // This member is required.
 LicenseArn *string

 // Current version of the license.
 //
 // This member is required.
 SourceVersion
 *string

 noSmithyDocumentSerde
}

type DeleteLicenseOutput struct {

 // Date when the license is deleted.
 DeletionDate *string

 // License status.
 Status types.LicenseDeletionStatus

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationDeleteLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpDeleteLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpDeleteLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "DeleteLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err !=
```

```
nil {
 return err
}
if err = addSetLoggerMiddleware(stack, options); err != nil {
 return err
}
if err = addClientRequestID(stack); err != nil {
 return err
}
if err = addComputeContentLength(stack); err != nil {
 return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
 return err
}
if err = addComputePayloadSHA256(stack); err != nil {
 return err
}
if err = addRetry(stack, options); err != nil {
 return err
}
if err = addRawResponseToMetadata(stack); err != nil {
 return err
}
if err = addRecordResponseTiming(stack); err != nil {
 return err
}
if err = addClientUserAgent(stack, options); err != nil {
 return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
 return err
}
if err = addTimeOffsetBuild(stack, c); err != nil
{
 return err
}
if err = addUserAgentRetryMode(stack, options); err != nil {
 return err
}
if err = addOpDeleteLicenseValidationMiddleware(stack); err != nil {
 return err
```

```
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opDeleteLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opDeleteLicense(region string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:    ServiceID,
  OperationName: "DeleteLicense",
 }
}
DeleteLicense
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
  OperationInputValidation
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
 Build stack step
  ClientRequestID
  ComputeContentLength
  UserAgent
  AddTimeOffsetMiddleware
  RecursionDetection
 Finalize stack step
  ResolveAuthScheme
```

GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
AddTimeOffsetMiddleware
RecordResponseTiming
RequestResponseLogger
GetLicense
Initialize stack step
RegisterServiceMetadata
legacyEndpointContextSetter
SetLogger
OperationInputValidation
Serialize stack step
setOperationInput
ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
UserAgent
AddTimeOffsetMiddleware
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody

```
 ResponseErrorWrapper
 RequestIDRetriever
 OperationDeserializer
 AddTimeOffsetMiddleware
 RecordResponseTiming
 RequestResponseLogger
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Checks out the specified license for offline use.
func (c *Client) CheckoutBorrowLicense(ctx context.Context, params *CheckoutBorrowLicenseInput, optFns
...func(*Options)) (*CheckoutBorrowLicenseOutput, error) {
 if params == nil {
  params = &CheckoutBorrowLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "CheckoutBorrowLicense", params, optFns,
c.addOperationCheckoutBorrowLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*CheckoutBorrowLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type CheckoutBorrowLicenseInput struct {

 // Unique, case-sensitive identifier that you provide to ensure the idempotency of
 //
 the request.
 //
 // This member is required.
 ClientToken *string

 // Digital signature method. The possible value is JSON Web Signature (JWS)
 // algorithm PS384. For more information, see [RFC 7518 Digital Signature with RSASSA-PSS].
```

```
//
// [RFC 7518 Digital Signature with RSASSA-PSS]: https://tools.ietf.org/html/rfc7518#section-3.5
//
// This member is required.
DigitalSignatureMethod types.DigitalSignatureMethod

// License entitlements. Partial checkouts are not supported.
//
// This member is required.
Entitlements []types.EntitlementData

// Amazon Resource Name (ARN) of the license. The license must use the borrow
// consumption configuration.
//
// This member is required.
LicenseArn *string

// Information about constraints.
CheckoutMetadata []types.Metadata

// Node ID.
NodeId *string

noSmithyDocumentSerde
}

type CheckoutBorrowLicenseOutput struct {

// Information about constraints.
CheckoutMetadata []types.Metadata

// Allowed license entitlements.
EntitlementsAllowed
[]types.EntitlementData

// Date and time at which the license checkout expires.
Expiration *string

// Date and time at which the license checkout is issued.
IssuedAt *string

// Amazon Resource Name (ARN) of the license.
LicenseArn *string

// License consumption token.
LicenseConsumptionToken *string

// Node ID.
```

```
 NodeId *string

 // Signed token.
 SignedToken *string

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationCheckoutBorrowLicenseMiddlewares(stack *middleware.Stack, options Options) (err
error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpCheckoutBorrowLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpCheckoutBorrowLicense{}, middleware.After)
 if err != nil {
  return
 err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "CheckoutBorrowLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
```

```
 return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
 return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
 return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
 return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return
err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
 return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
 return err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
 return err
 }
 if err = addUserAgentRetryMode(stack, options); err != nil {
 return err
 }
 if err = addOpCheckoutBorrowLicenseValidationMiddleware(stack); err != nil {
 return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opCheckoutBorrowLicense(options.Region),
middleware.Before); err != nil {
 return err
 }
 if err = addRecursionDetection(stack); err != nil {
 return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
 return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
 return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
 return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
 return err
```

```
 }
 return nil
}

func newServiceMetadataMiddleware_opCheckoutBorrowLicense(region
 string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:    ServiceID,
  OperationName: "CheckoutBorrowLicense",
 }
}
```

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```
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package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
```

```
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Checks in the specified license. Check in a license when it is no longer in use.
func (c *Client) CheckInLicense(ctx context.Context, params *CheckInLicenseInput, optFns ...func(*Options))
(*CheckInLicenseOutput, error) {
 if params == nil {
  params = &CheckInLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "CheckInLicense", params, optFns,
c.addOperationCheckInLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*CheckInLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type CheckInLicenseInput struct {

 // License consumption token.
 //
 // This member is required.
 LicenseConsumptionToken *string

 // License beneficiary.
 Beneficiary *string

 noSmithyDocumentSerde
}

type
 CheckInLicenseOutput struct {
 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationCheckInLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpCheckInLicense{}, middleware.After)
```

```
if err != nil {
 return err
}
err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpCheckInLicense{}, middleware.After)
if err != nil {
 return err
}
if err := addProtocolFinalizerMiddlewares(stack, options, "CheckInLicense"); err != nil {
 return fmt.Errorf("add protocol finalizers: %v", err)
}

if err = addlegacyEndpointContextSetter(stack, options); err != nil {
 return err
}
if err = addSetLoggerMiddleware(stack, options); err != nil {
 return err
}
if err = addClientRequestID(stack); err != nil {
 return err
}
if
err = addComputeContentLength(stack); err != nil {
 return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
 return err
}
if err = addComputePayloadSHA256(stack); err != nil {
 return err
}
if err = addRetry(stack, options); err != nil {
 return err
}
if err = addRawResponseToMetadata(stack); err != nil {
 return err
}
if err = addRecordResponseTiming(stack); err != nil {
 return err
}
if err = addClientUserAgent(stack, options); err != nil {
 return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
```

```
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
  return err
 }
 if err = addUserAgentRetryMode(stack, options); err != nil {
  return err
 }
 if err = addOpCheckInLicenseValidationMiddleware(stack); err != nil
 {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opCheckInLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opCheckInLicense(region string) *awsmiddleware.RegisterServiceMetadata
{
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName: "CheckInLicense",
 }
}
```

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APPENDIX: How to apply the Apache License to your work.

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comment syntax for the file format. We also recommend that a
file or class name and description of purpose be included on the
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```
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 limitations under the License.
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Lists the licenses for your account.
func (c *Client) ListLicenses(ctx context.Context, params *ListLicensesInput, optFns ...func(*Options))
(*ListLicensesOutput, error) {
 if params == nil {
  params = &ListLicensesInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "ListLicenses", params, optFns,
c.addOperationListLicensesMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*ListLicensesOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type ListLicensesInput struct {

 // Filters to scope the results. The following filters are supported:
```

```
//
//   - Beneficiary
//
//   - ProductSKU
//
//   - Fingerprint
//
//   - Status
 Filters
 []types.Filter

 // Amazon Resource Names (ARNs) of the licenses.
 LicenseArns []string

 // Maximum number of results to return in a single call.
 MaxResults *int32

 // Token for the next set of results.
 NextToken *string

 noSmithyDocumentSerde
}

type ListLicensesOutput struct {

 // License details.
 Licenses []types.License

 // Token for the next set of results.
 NextToken *string

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationListLicensesMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpListLicenses{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpListLicenses{}, middleware.After)
 if err != nil {
  return err
```

```
}
if err := addProtocolFinalizerMiddlewares(stack,
options, "ListLicenses"); err != nil {
 return fmt.Errorf("add protocol finalizers: %v", err)
}

if err = addlegacyEndpointContextSetter(stack, options); err != nil {
 return err
}
if err = addSetLoggerMiddleware(stack, options); err != nil {
 return err
}
if err = addClientRequestID(stack); err != nil {
 return err
}
if err = addComputeContentLength(stack); err != nil {
 return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
 return err
}
if err = addComputePayloadSHA256(stack); err != nil {
 return err
}
if err = addRetry(stack, options); err != nil {
 return err
}
if err = addRawResponseToMetadata(stack); err != nil {
 return err
}
if err = addRecordResponseTiming(stack); err != nil {
 return err
}
if err = addClientUserAgent(stack, options); err != nil {
 return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack);
err != nil {
 return err
}
if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
 return err
}
if err = addTimeOffsetBuild(stack, c); err != nil {
 return err
```

```
 }
 if err = addUserAgentRetryMode(stack, options); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opListLicenses(options.Region), middleware.Before);
err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opListLicenses(region string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:
     ServiceID,
  OperationName: "ListLicenses",
 }
}
CheckInLicense
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
  OperationInputValidation
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
 Build stack step
  ClientRequestID
  ComputeContentLength
  UserAgent
```

AddTimeOffsetMiddleware
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
AddTimeOffsetMiddleware
RecordResponseTiming
RequestResponseLogger


```
{
  "smithy": "2.0",
  "shapes": {
    "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException": {
      "type": "structure",
      "members": {
        "message": {
          "target": "smithy.api#String"
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>You don't have sufficient access to perform this action.</p>",
        "smithy.api#error": "client"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ActiveDirectoryIdentityProvider": {
      "type": "structure",
      "members": {
        "DirectoryId": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The directory ID for an Active Directory identity provider.</p>"
          }
        }
      },
      "traits": {
```

```
            "smithy.api#documentation":
 "<p>Details about an Active Directory identity provider.</p>"
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#AssociateUser": {
          "type": "operation",
          "input": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AssociateUserRequest"
          },
          "output": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AssociateUserResponse"
          },
          "errors": [
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
             },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Associates the user to an EC2 instance to utilize user-based
subscriptions.</p>\n        <note>\n            <p>Your estimated bill for charges on the number of users and related
costs will take 48\n        hours to appear for billing periods that haven't closed (marked as <b>Pending</b> billing
status) in Amazon Web Services Billing. For more information, see <a
href=\"https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/invoice.html\">Viewing your\n
        monthly charges</a> in the <i>Amazon Web Services Billing User Guide</i>.</p>\n        </note>",
            "smithy.api#http": {
              "code": 200,
              "method": "POST",
              "uri": "/user/AssociateUser"
            },
            "smithy.api#idempotent": {}
```

```
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#AssociateUserRequest": {
        "type": "structure",
        "members": {
          "Username": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The user name from the identity provider for the user.</p>",
              "smithy.api#required": {}
            }
          },
          "InstanceId": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The ID of the
EC2 instance, which provides user-based subscriptions.</p>",
              "smithy.api#required": {}
            }
          },
          "IdentityProvider": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
            "traits": {
              "smithy.api#documentation": "<p>The identity provider of the user.</p>",
              "smithy.api#required": {}
            }
          },
          "Domain": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The domain name of the user.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#AssociateUserResponse": {
        "type": "structure",
        "members": {
          "InstanceUserSummary": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummary",
             "traits": {
              "smithy.api#documentation": "<p>Metadata that describes the associate user operation.</p>",
              "smithy.api#required": {}
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#BoxInteger": {
```

```
        "type": "integer"
      },
      "com.amazonaws.licensemanagerusersubscriptions#ConflictException": {
        "type": "structure",
        "members": {
          "message": {
            "target": "smithy.api#String"
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>The request couldn't be completed because it conflicted with the current state of the\n      resource.</p>",
          "smithy.api#error": "server"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProvider": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProviderRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProviderResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
          }
        ],
        "traits": {
```

```
            "smithy.api#documentation": "<p>Deregisters the identity provider from providing user-based
subscriptions.</p>",
            "smithy.api#http": {
               "code": 200,
               "method": "POST",
               "uri": "/identity-provider/DeregisterIdentityProvider"
            },
            "smithy.api#idempotent": {}
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProviderRequest": {
         "type": "structure",
         "members": {
            "IdentityProvider": {
               "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
                "traits": {
                  "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
                  "smithy.api#required": {}
               }
            },
            "Product": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
                  "smithy.api#required": {}
               }
            }
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProviderResponse": {
         "type": "structure",
         "members": {
            "IdentityProviderSummary": {
               "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary",
               "traits": {
                  "smithy.api#documentation":
 "<p>Metadata that describes the results of an identity provider operation.</p>",
                  "smithy.api#required": {}
               }
            }
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#DisassociateUser": {
         "type": "operation",
         "input": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#DisassociateUserRequest"
         },
         "output": {
```

```
            "target": "com.amazonaws.licensemanagerusersubscriptions#DisassociateUserResponse"
        },
        "errors": [
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
             },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Disassociates the user from an EC2 instance providing user-based
subscriptions.</p>",
            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/user/DisassociateUser"
            },
            "smithy.api#idempotent": {}
        }

    },
    "com.amazonaws.licensemanagerusersubscriptions#DisassociateUserRequest": {
        "type": "structure",
        "members": {
            "Username": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The user name from the identity provider for the user.</p>",
                    "smithy.api#required": {}
                }
            },
            "InstanceId": {
```

```
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The ID of the EC2 instance, which provides user-based
subscriptions.</p>",
              "smithy.api#required": {}
            }
          },
          "IdentityProvider": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
            "traits": {
              "smithy.api#documentation":
"<p>An object that specifies details for the identity provider.</p>",
              "smithy.api#required": {}
            }
          },
          "Domain": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The domain name of the user.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#DisassociateUserResponse": {
        "type": "structure",
        "members": {
          "InstanceUserSummary": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummary",
            "traits": {
              "smithy.api#documentation": "<p>Metadata that describes the associate user operation.</p>",
              "smithy.api#required": {}
            }
          }
        }
      },

    "com.amazonaws.licensemanagerusersubscriptions#Filter": {
        "type": "structure",
        "members": {
          "Attribute": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The name of an attribute to use as a filter.</p>"
            }
          },
          "Operation": {
            "target": "smithy.api#String",
            "traits": {
```

```
                "smithy.api#documentation": "<p>The type of search (For example, eq, geq, leq)</p>"
              }
            },
            "Value": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>Value of the filter.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>A filter name and value pair that is used
 to return more specific results from a describe\n      operation. Filters can be used to match a set of resources by
specific criteria, such as tags,\n      attributes, or IDs.</p>"
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#FilterList": {
          "type": "list",
          "member": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#Filter"
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider": {
          "type": "union",
          "members": {
            "ActiveDirectoryIdentityProvider": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ActiveDirectoryIdentityProvider",
              "traits": {
                "smithy.api#documentation": "<p>An object that details an Active Directory identity provider.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#documentation":
 "<p>Details about an identity provider.</p>"
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary": {
          "type": "structure",
          "members": {
            "IdentityProvider": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
              "traits": {
                "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
                "smithy.api#required": {}
              }
            },
            "Settings": {
```

```
            "target": "com.amazonaws.licensemanagerusersubscriptions#Settings",
            "traits": {
              "smithy.api#documentation": "<p>An object that details the registered identity providers product related configuration\n      settings such as the subnets to provision VPC endpoints.</p>",
              "smithy.api#required":
 {}
            }
          },
          "Product": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
              "smithy.api#required": {}
            }
          },
          "Status": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The status of an identity provider.</p>",
              "smithy.api#required": {}
            }
          },
          "FailureMessage": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The failure message associated with an identity provider.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation":
 "<p>Describes an identity provider.</p>"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummaryList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#InstanceSummary": {
        "type": "structure",
        "members": {
          "InstanceId": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The ID of the EC2 instance, which provides user-based subscriptions.</p>",
```

```
                "smithy.api#required": {}
            }
        },
        "Status": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The status
of an EC2 instance resource.</p>",
                "smithy.api#required": {}
            }
        },
        "Products": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#StringList",
            "traits": {
                "smithy.api#documentation": "<p>A list of provided user-based subscription products.</p>",
                "smithy.api#required": {}
            }
        },
        "LastStatusCheckDate": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The date of the last status check.</p>"
            }
        },
        "StatusMessage": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The status message for an EC2 instance.</p>"
            }

    }
      },
      "traits": {
        "smithy.api#documentation": "<p>Describes an EC2 instance providing user-based subscriptions.</p>"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#InstanceSummaryList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceSummary"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummary": {
      "type": "structure",
      "members": {
        "Username": {
          "target": "smithy.api#String",
          "traits": {
```

```
                "smithy.api#documentation": "<p>The user name from the identity provider for the user.</p>",
                "smithy.api#required": {}
            }
        },
        "InstanceId": {
            "target": "smithy.api#String",
            "traits":
{
                "smithy.api#documentation": "<p>The ID of the EC2 instance, which provides user-based
subscriptions.</p>",
                "smithy.api#required": {}
            }
        },
        "IdentityProvider": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
            "traits": {
                "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
                "smithy.api#required": {}
            }
        },
        "Status": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The status of a user associated with an EC2 instance.</p>",
                "smithy.api#required": {}
            }
        },
        "StatusMessage": {
            "target": "smithy.api#String",
             "traits": {
                "smithy.api#documentation": "<p>The status message for users of an EC2 instance.</p>"
            }
        },
        "Domain": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The domain name of the user.</p>"
            }
        },
        "AssociationDate": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The date a user was associated with an EC2 instance.</p>"
            }
        },
        "DisassociationDate": {
            "target": "smithy.api#String",
            "traits": {
```

```
                "smithy.api#documentation": "<p>The date a user was disassociated from an EC2 instance.</p>"
              }
            }

  },
        "traits": {
          "smithy.api#documentation": "<p>Describes users of an EC2 instance providing user-based
subscriptions.</p>"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummaryList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummary"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#InternalServerException": {
        "type": "structure",
        "members": {
          "message": {
            "target": "smithy.api#String"
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>An exception occurred with the service.</p>",
          "smithy.api#error": "server"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#LicenseManagerUserSubscriptions": {
        "type": "service",

       "version": "2018-05-10",
        "operations": [
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AssociateUser"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProvider"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#DisassociateUser"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProviders"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ListInstances"
          },
```

```
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptions"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociations"

},
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProvider"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscription"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscription"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettings"
            }
          ],
          "traits": {
            "aws.api#service": {
              "sdkId": "License Manager User Subscriptions",
              "arnNamespace": "license-manager-user-subscriptions",
              "cloudTrailEventSource": "license-manager-user-subscriptions.amazonaws.com"
            },
            "aws.auth#sigv4": {
              "name": "license-manager-user-subscriptions"
             },
            "aws.protocols#restJson1": {},
            "smithy.api#cors": {
              "additionalAllowedHeaders": [
                "*",
                "content-type",
                "x-amz-content-sha256",
                "x-amz-user-agent",
                "x-amzn-platform-id",
                "x-amzn-trace-id",
                "content-length",
                "x-api-key",
                "authorization",
                "x-amz-date",
                "x-amz-security-token",
                "Access-Control-Allow-Headers",
                "Access-Control-Allow-Methods",
                "Access-Control-Allow-Origin"
              ],
              "additionalExposedHeaders": [
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```
                "x-amzn-errortype",
                "x-amzn-requestid",
                "x-amzn-trace-id"

 ]
            },
            "smithy.api#documentation": "<p>With License Manager, you can create user-based subscriptions to
utilize licensed software with\n      a per user subscription fee on Amazon EC2 instances.</p>",
            "smithy.api#title": "AWS License Manager User Subscriptions",
            "smithy.rules#endpointRuleSet": {
              "version": "1.0",
              "parameters": {
                "Region": {
                  "builtIn": "AWS::Region",
                  "required": false,
                  "documentation": "The AWS region used to dispatch the request.",
                  "type": "String"
                },
                "UseDualStack": {
                  "builtIn": "AWS::UseDualStack",
                  "required": true,
                  "default": false,
                  "documentation": "When true, use the dual-stack
 endpoint. If the configured endpoint does not support dual-stack, dispatching the request MAY return an error.",
                  "type": "Boolean"
                },
                "UseFIPS": {
                  "builtIn": "AWS::UseFIPS",
                  "required": true,
                  "default": false,
                  "documentation": "When true, send this request to the FIPS-compliant regional endpoint. If the
configured endpoint does not have a FIPS compliant endpoint, dispatching the request will return an error.",
                  "type": "Boolean"
                },
                "Endpoint": {
                  "builtIn": "SDK::Endpoint",
                  "required": false,
                  "documentation": "Override the endpoint used to send this request",
                  "type": "String"
                }

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            "rules": [
              {
                "conditions": [
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                    "fn": "isSet",
                    "argv": [
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```
                {
                  "ref": "Endpoint"
                }
              ]
            }
          ],
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          "rules": [
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              "conditions": [
                {
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                  "argv": [
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                      "ref": "UseFIPS"
                    },

                    true
                  ]
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              ],
              "error": "Invalid Configuration: FIPS and custom endpoint are not supported",
              "type": "error"
            },
            {
              "conditions": [
                {
                  "fn": "booleanEquals",
                  "argv": [
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                      "ref": "UseDualStack"
                    },
                    true
                  ]
                }
              ],

        "error": "Invalid Configuration: Dualstack and custom endpoint are not supported",
              "type": "error"
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            {
              "conditions": [],
              "endpoint": {
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                  "ref": "Endpoint"
                },
                "properties": {},
                "headers": {}
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                },
                "type": "endpoint"
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            ]
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          {
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                "argv": [

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                    "ref": "Region"
                  }
                ]
              }
            ],
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                    "argv": [
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                        "ref": "Region"
                      }
                    ],
                    "assign": "PartitionResult"
                  }
                ],
                "type": "tree",

"rules": [
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                    "conditions": [
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                        "fn": "booleanEquals",
                        "argv": [
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                            "ref": "UseFIPS"
                          },
                          true
                        ]
                      },
                      {
                        "fn": "booleanEquals",
                        "argv": [
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```
                {
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                },
                true
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                  "argv": [
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                    {
                      "fn": "getAttr",

"argv": [
                        {
                          "ref": "PartitionResult"
                        },
                        "supportsFIPS"
                      ]
                    }
                  ]
                },
                {
                  "fn": "booleanEquals",
                  "argv": [
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                    {

        "fn": "getAttr",
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                          {
                            "ref": "PartitionResult"
                          },
                          "supportsDualStack"
                        ]
                      }
                    ]
                  }
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                "type": "tree",
                "rules": [
                  {
```

```
            "conditions": [],
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                                       "url": "https://license-manager-user-subscriptions-
fips.{Region}.{PartitionResult#dualStackDnsSuffix}",
                                       "properties": {},
                                       "headers": {}
                                    },
                                    "type": "endpoint"
                                 }
                              ]
                           },
                           {
                              "conditions": [],
                              "error": "FIPS and DualStack are enabled, but this partition does not support one or
both",
                               "type": "error"
                           }
                        ]
                     },
                     {
                        "conditions": [
                           {
                              "fn": "booleanEquals",
                              "argv": [
                                 {
                                    "ref": "UseFIPS"
                                 },
                                 true
                              ]
                           }
                        ],
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                                    "argv": [
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                                       {
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                                          "argv": [
                                             {
                                                "ref": "PartitionResult"
                                             },
                                             "supportsFIPS"
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                                ]
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                            }
                        ],
                        "type": "tree",
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fips.{Region}.{PartitionResult#dnsSuffix}",
                                    "properties": {},
                                    "headers": {}

            },
                                "type": "endpoint"
                            }
                        ]
                    },
                    {
                        "conditions": [],
                        "error": "FIPS is enabled but this partition does not support FIPS",
                        "type": "error"
                    }
                ]
            },
            {
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                        "argv": [
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                                "ref": "UseDualStack"
                            },
                            true
                        ]
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                        "conditions": [
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                                "argv": [
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                                {

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                                        {
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                                    ]
                                }
                            ]
                        }
                    ],
                    "type": "tree",
                    "rules": [
                        {

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subscriptions.{Region}.{PartitionResult#dualStackDnsSuffix}",
                                "properties": {},
                                "headers": {}
                            },
                            "type": "endpoint"
                        }
                    ]
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                {
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 not support DualStack",
                    "type": "error"
                }
            ]
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        {
            "conditions": [],
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subscriptions.{Region}.{PartitionResult#dnsSuffix}",
                "properties": {},
                "headers": {}
            },
            "type": "endpoint"
        }
    ]
}
```

```
            ]
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[],
            "error": "Invalid Configuration: Missing Region",
            "type": "error"
          }
        ]
      },
      "smithy.rules#endpointTests": {
        "testCases": [
          {
            "documentation": "For region us-east-1 with FIPS enabled and DualStack enabled",
            "expect": {
              "endpoint": {
                "url": "https://license-manager-user-subscriptions-fips.us-east-1.api.aws"
              }
            },
            "params": {
              "Region": "us-east-1",
              "UseFIPS": true,
              "UseDualStack": true
            }
          },
          {
            "documentation":
"For region us-east-1 with FIPS enabled and DualStack disabled",
            "expect": {
              "endpoint": {
                "url": "https://license-manager-user-subscriptions-fips.us-east-1.amazonaws.com"
              }
            },
            "params": {
              "Region": "us-east-1",
              "UseFIPS": true,
              "UseDualStack": false
            }
          },
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            "documentation": "For region us-east-1 with FIPS disabled and DualStack enabled",
            "expect": {
              "endpoint": {
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              }
            },
```

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                "UseDualStack": true
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        {
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            "expect": {
                "endpoint": {
                    "url": "https://license-manager-user-subscriptions.us-east-1.amazonaws.com"
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            "params": {
                "Region": "us-east-1",
                "UseFIPS": false,
                "UseDualStack": false
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        },
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            "documentation": "For region cn-north-1 with
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            "expect": {
                "endpoint": {
                    "url": "https://license-manager-user-subscriptions-fips.cn-north-
1.api.amazonwebservices.com.cn"
                }
            },
            "params": {
                "Region": "cn-north-1",
                "UseFIPS": true,
                "UseDualStack": true
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        },
        {
            "documentation": "For region cn-north-1 with FIPS enabled and DualStack disabled",
            "expect": {
                "endpoint": {
                    "url": "https://license-manager-user-subscriptions-fips.cn-north-1.amazonaws.com.cn"
                }
            },

    "params": {
                "Region": "cn-north-1",
                "UseFIPS": true,
                "UseDualStack": false
            }
        },
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                  "expect": {
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                    }
                  },
                  "params": {
                    "Region": "cn-north-1",
                    "UseFIPS": false,
                    "UseDualStack": true
                  }
                },
                {
                  "documentation": "For region cn-north-1
with FIPS disabled and DualStack disabled",
                  "expect": {
                    "endpoint": {
                      "url": "https://license-manager-user-subscriptions.cn-north-1.amazonaws.com.cn"
                    }
                  },
                  "params": {
                    "Region": "cn-north-1",
                    "UseFIPS": false,
                    "UseDualStack": false
                  }
                },
                {
                  "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack enabled",
                  "expect": {
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                    }
                  },

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                    "UseDualStack": true
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                    "endpoint": {
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                    }
                  },
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            "expect": {
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              }
            },
            "params": {
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              "UseFIPS": false,
              "UseDualStack": true
            }
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            "documentation": "For region us-gov-east-1 with FIPS disabled and DualStack disabled",
            "expect": {
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              }
            },

        "params": {
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              "UseDualStack": false
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            "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack enabled",
            "expect": {
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            },
            "params": {
              "Region": "us-iso-east-1",
              "UseFIPS": true,
              "UseDualStack": true
            }
          },
          {
            "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack disabled",
            "expect":
```

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{
                    "endpoint": {
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                    }
                  },
                  "params": {
                    "Region": "us-iso-east-1",
                    "UseFIPS": true,
                    "UseDualStack": false
                  }
                },
                {
                  "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack enabled",
                  "expect": {
                    "error": "DualStack is enabled but this partition does not support DualStack"
                  },
                  "params": {
                    "Region": "us-iso-east-1",
                    "UseFIPS": false,
                    "UseDualStack":
true
                  }
                },
                {
                  "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack disabled",
                  "expect": {
                    "endpoint": {
                      "url": "https://license-manager-user-subscriptions.us-iso-east-1.c2s.ic.gov"
                    }
                  },
                  "params": {
                    "Region": "us-iso-east-1",
                    "UseFIPS": false,
                    "UseDualStack": false
                  }
                },
                {
                  "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack enabled",
                  "expect": {
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                  },
                  "params": {
                    "Region": "us-isob-east-1",
                    "UseFIPS": true,
                    "UseDualStack": true
                  }
                },
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            {
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              "expect": {
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                  "url": "https://license-manager-user-subscriptions-fips.us-isob-east-1.sc2s.sgov.gov"
                }
              },
              "params": {
                "Region": "us-isob-east-1",
                "UseFIPS": true,
                "UseDualStack": false
              }

    },
            {
              "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack enabled",
              "expect": {
                "error": "DualStack is enabled but this partition does not support DualStack"
              },
              "params": {
                "Region": "us-isob-east-1",
                "UseFIPS": false,
                "UseDualStack": true
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            },
            {
              "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack disabled",
              "expect": {
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                }
              },
               "params": {
                "Region": "us-isob-east-1",
                "UseFIPS": false,
                "UseDualStack": false
              }
            },
            {
              "documentation": "For custom endpoint with region set and fips disabled and dualstack disabled",
              "expect": {
                "endpoint": {
                  "url": "https://example.com"
                }
              },
              "params": {
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                "UseFIPS": false,
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```
            "UseDualStack": false,
            "Endpoint": "https://example.com"
          }
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        {

"documentation": "For custom endpoint with region not set and fips disabled and dualstack disabled",
          "expect": {
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              "url": "https://example.com"
            }
          },
          "params": {
            "UseFIPS": false,
            "UseDualStack": false,
            "Endpoint": "https://example.com"
          }
        },
        {
          "documentation": "For custom endpoint with fips enabled and dualstack disabled",
          "expect": {
            "error": "Invalid Configuration: FIPS and custom endpoint are not supported"
          },
          "params": {
            "Region": "us-east-1",
             "UseFIPS": true,
            "UseDualStack": false,
            "Endpoint": "https://example.com"
          }
        },
        {
          "documentation": "For custom endpoint with fips disabled and dualstack enabled",
          "expect": {
            "error": "Invalid Configuration: Dualstack and custom endpoint are not supported"
          },
          "params": {
            "Region": "us-east-1",
            "UseFIPS": false,
            "UseDualStack": true,
            "Endpoint": "https://example.com"
          }
        },
        {
          "documentation": "Missing region",
          "expect": {
             "error": "Invalid Configuration: Missing Region"
          }
        }
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            ],
            "version": "1.0"
        }
    }
},
"com.amazonaws.licensemanagerusersubscriptions#ListIdentityProviders": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProvidersRequest"
    },
    "output": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProvidersResponse"
    },
    "errors": [
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
        }
    ],
    "traits": {
        "smithy.api#documentation": "<p>Lists the identity providers for user-based subscriptions.</p>",
        "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/identity-provider/ListIdentityProviders"
        },
        "smithy.api#paginated":
{
            "inputToken": "NextToken",
            "outputToken": "NextToken",
            "pageSize": "MaxResults",
```

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            "items": "IdentityProviderSummaries"
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProvidersRequest": {
        "type": "structure",
        "members": {
          "MaxResults": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#BoxInteger",
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProvidersResponse":
{
        "type": "structure",
        "members": {
          "IdentityProviderSummaries": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummaryList",
            "traits": {
              "smithy.api#documentation": "<p>Metadata that describes the list identity providers operation.</p>",
              "smithy.api#required": {}
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListInstances": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListInstancesRequest"
         },
        "output": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListInstancesResponse"
        },
```

```
    "errors": [
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
         },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
        }
    ],
    "traits": {
        "smithy.api#documentation": "<p>Lists the EC2 instances providing user-based subscriptions.</p>",
        "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/instance/ListInstances"
        },
        "smithy.api#paginated": {
            "inputToken": "NextToken",
            "outputToken": "NextToken",
            "pageSize": "MaxResults",
            "items": "InstanceSummaries"
        }
    }
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"com.amazonaws.licensemanagerusersubscriptions#ListInstancesRequest": {
    "type": "structure",
    "members": {
        "MaxResults": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#BoxInteger",
             "traits": {
                "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
        },
        "NextToken": {
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```
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          },
          "Filters": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#FilterList",
            "traits": {
              "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those
that match one or\n      more sets of key-value pairs that you specify.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListInstancesResponse": {
        "type":
 "structure",
        "members": {
          "InstanceSummaries": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceSummaryList",
            "traits": {
              "smithy.api#documentation": "<p>Metadata that describes the list instances operation.</p>"
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptions": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptionsRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptionsResponse"
         },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
          },
          {
```

```
                "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Lists the user-based subscription products available from an identity
provider.</p>",
            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/user/ListProductSubscriptions"
            },
            "smithy.api#paginated": {
                "inputToken": "NextToken",
                "outputToken": "NextToken",
                "pageSize": "MaxResults",
                "items": "ProductUserSummaries"
            }
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptionsRequest": {
        "type": "structure",
        "members": {
            "Product": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The name
 of the user-based subscription product.</p>",
                    "smithy.api#required": {}
                }
            },
            "IdentityProvider": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
                "traits": {
                    "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
                    "smithy.api#required": {}
                }
```

```
            },
            "MaxResults": {
               "target": "com.amazonaws.licensemanagerusersubscriptions#BoxInteger",
               "traits": {
                  "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
               }
            },
            "Filters": {
               "target": "com.amazonaws.licensemanagerusersubscriptions#FilterList",
               "traits": {

  "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those that match
one or\n      more sets of key-value pairs that you specify.</p>"
               }
            },
            "NextToken": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>Token for the next set of results.</p>"
               }
            }
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptionsResponse": {
         "type": "structure",
         "members": {
            "ProductUserSummaries": {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummaryList",
               "traits": {
                  "smithy.api#documentation": "<p>Metadata that describes the list product subscriptions
operation.</p>"
               }
            },

       "NextToken": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>Token for the next set of results.</p>"
               }
            }
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociations": {
         "type": "operation",
         "input": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociationsRequest"
         },
         "output": {
```

```
            "target": "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociationsResponse"
          },
          "errors": [
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
            },
            {
              "target":
"com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Lists user associations for an identity provider.</p>",
            "smithy.api#http": {
              "code": 200,
              "method": "POST",
              "uri": "/user/ListUserAssociations"
            },
            "smithy.api#paginated":
{
              "inputToken": "NextToken",
              "outputToken": "NextToken",
              "pageSize": "MaxResults",
              "items": "InstanceUserSummaries"
            }
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociationsRequest": {
          "type": "structure",
          "members": {
            "InstanceId": {
              "target": "smithy.api#String",
              "traits": {
```

```
                "smithy.api#documentation": "<p>The ID of the EC2 instance, which provides user-based
subscriptions.</p>",
                "smithy.api#required": {}
              }
            },
            "IdentityProvider": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
              "traits": {
                "smithy.api#documentation": "<p>An object that specifies details for the identity
 provider.</p>",
                "smithy.api#required": {}
              }
            },
            "MaxResults": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#BoxInteger",
              "traits": {
                "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
              }
            },
            "Filters": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#FilterList",
              "traits": {
                "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those
that match one or\n      more sets of key-value pairs that you specify.</p>"
              }
            },
            "NextToken": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>Token for
 the next set of results.</p>"
              }
            }
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociationsResponse": {
          "type": "structure",
          "members": {
            "InstanceUserSummaries": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummaryList",
              "traits": {
                "smithy.api#documentation": "<p>Metadata that describes the list user association operation.</p>"
              }
            },
            "NextToken": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>Token for the next set of results.</p>"
```

```
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummary": {
        "type": "structure",
        "members": {

        "Username": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The user name from the identity provider of the user.</p>",
                "smithy.api#required": {}
              }
            },
            "Product": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
                "smithy.api#required": {}
              }
            },
            "IdentityProvider": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
              "traits": {
                "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
                "smithy.api#required": {}
              }

    },
            "Status": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The status of a product for a user.</p>",
                "smithy.api#required": {}
              }
            },
            "StatusMessage": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The status message for a product for a user.</p>"
              }
            },
            "Domain": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The domain name of the user.</p>"
              }
```

```
            },
            "SubscriptionStartDate": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The
start date of a subscription.</p>"
               }
            },
            "SubscriptionEndDate": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The end date of a subscription.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#documentation": "<p>The summary of the user-based subscription products for a user.</p>"
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummaryList": {
         "type": "list",
         "member": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummary"
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProvider": {
         "type": "operation",
         "input": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProviderRequest"
          },
         "output": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProviderResponse"
         },
         "errors": [
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
```

```
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Registers an identity provider for user-based subscriptions.</p>",
            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/identity-provider/RegisterIdentityProvider"
            },
            "smithy.api#idempotent": {}
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProviderRequest": {
        "type": "structure",
        "members": {
            "IdentityProvider": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
                "traits": {
                    "smithy.api#documentation": "<p>An object that specifies details for the identity
provider.</p>",
                    "smithy.api#required": {}
                }
            },
            "Product": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
                    "smithy.api#required": {}
                }
            },
            "Settings": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#Settings",
                "traits": {
                    "smithy.api#documentation": "<p>The registered identity providers product related configuration
settings such as the\n      subnets to provision VPC endpoints.</p>"
                }
            }
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProviderResponse": {
        "type": "structure",
        "members": {
```

```
        "IdentityProviderSummary":
{
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary",
            "traits": {
              "smithy.api#documentation": "<p>Metadata that describes the results of an identity provider
operation.</p>",
              "smithy.api#required": {}
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException": {
        "type": "structure",
        "members": {
          "message": {
            "target": "smithy.api#String"
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>The resource couldn't be found.</p>",
          "smithy.api#error": "client",
          "smithy.api#httpError": 404
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#SecurityGroup": {
        "type": "string",

    "traits": {
          "smithy.api#length": {
            "min": 5,
            "max": 200
          },
          "smithy.api#pattern": "^sg-(([0-9a-z]{8})|([0-9a-z]{17}))$"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException": {
        "type": "structure",
        "members": {
          "message": {
            "target": "smithy.api#String"
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>The request failed because a service quota is exceeded.</p>",
          "smithy.api#error": "client"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#Settings": {
```

```
        "type": "structure",
        "members": {
          "Subnets": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#Subnets",
            "traits": {
              "smithy.api#documentation":
 "<p>The subnets defined for the registered identity provider.</p>",
              "smithy.api#length": {
                "min": 1
              },
              "smithy.api#required": {}
            }
          },
          "SecurityGroupId": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#SecurityGroup",
            "traits": {
              "smithy.api#documentation": "<p>A security group ID that allows inbound TCP port 1688
communication between resources in\n      your VPC and the VPC endpoint for activation servers.</p>",
              "smithy.api#required": {}
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>The registered identity providers product related configuration settings
such as the\n      subnets to provision VPC endpoints, and the security group ID that
 is associated with the VPC\n      endpoints. The security group should permit inbound TCP port 1688
communication from resources\n      in the VPC.</p>"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscription": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscriptionRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscriptionResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
           },
          {
```

```
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Starts a product subscription for a user with the specified identity provider.</p>\n        <note>\n          <p>Your estimated bill for charges on the number of users and related costs will take 48\n        hours to appear for billing periods that haven't closed (marked as <b>Pending</b> billing status) in Amazon Web Services Billing.
 For more information, see <a href=\"https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/invoice.html\">Viewing your\n        monthly charges</a> in the <i>Amazon Web Services Billing User Guide</i>.</p>\n        </note>",
          "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/user/StartProductSubscription"
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscriptionRequest": {
        "type": "structure",
        "members": {
          "Username": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The user name from the identity provider of the user.</p>",
              "smithy.api#required": {}
            }
          },
          "IdentityProvider": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
            "traits": {
              "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
              "smithy.api#required": {}
            }
          },
          "Product": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
```

```
                "smithy.api#required": {}
              }
            },
            "Domain": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The domain name of the user.</p>"
              }
            }
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscriptionResponse": {
          "type": "structure",
           "members": {
            "ProductUserSummary": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummary",
              "traits": {
                "smithy.api#documentation": "<p>Metadata that describes the start product subscription
operation.</p>",
                "smithy.api#required": {}
              }
            }
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscription": {
          "type": "operation",
          "input": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscriptionRequest"
          },
          "output": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscriptionResponse"
          },
          "errors": [
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"

    },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
```

```
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Stops a product subscription for a user with the specified identity
provider.</p>",
             "smithy.api#http": {
               "code": 200,
               "method": "POST",
               "uri": "/user/StopProductSubscription"
            }
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscriptionRequest": {
         "type": "structure",
         "members": {
            "Username": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The user name from the identity provider for the user.</p>",
                  "smithy.api#required": {}
               }
            },
            "IdentityProvider": {
               "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
               "traits": {
                  "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
                  "smithy.api#required":
{}
               }
            },
            "Product": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
                  "smithy.api#required": {}
               }
            },
            "Domain": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The domain name of the user.</p>"
               }
```

```
            }
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscriptionResponse": {
          "type": "structure",
          "members": {
            "ProductUserSummary": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummary",
              "traits": {
                "smithy.api#documentation":
 "<p>Metadata that describes the start product subscription operation.</p>",
                "smithy.api#required": {}
              }
            }
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#StringList": {
          "type": "list",
          "member": {
            "target": "smithy.api#String"
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#Subnet": {
          "type": "string",
          "traits": {
            "smithy.api#pattern": "subnet-[a-z0-9]{8,17}"
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#Subnets": {
          "type": "list",
          "member": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#Subnet"
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException": {
          "type": "structure",
          "members": {
            "message": {

             "target": "smithy.api#String"
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>The request was denied because of request throttling. Retry the
 request.</p>",
            "smithy.api#error": "client"
          }
        },
```

```
    "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettings": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettingsRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettingsResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
         },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Updates additional product configuration settings for the registered
identity\n      provider.</p>",
        "smithy.api#http": {
          "code": 200,
          "method": "POST",
          "uri": "/identity-provider/UpdateIdentityProviderSettings"
        },
        "smithy.api#idempotent": {}
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettingsRequest": {
      "type": "structure",
      "members": {
        "IdentityProvider": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
           "traits": {
            "smithy.api#required": {}
          }
        },
        "Product": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
            "smithy.api#required": {}
          }
```

```
            },
            "UpdateSettings": {
               "target": "com.amazonaws.licensemanagerusersubscriptions#UpdateSettings",
               "traits": {
                  "smithy.api#documentation": "<p>Updates the registered identity providers product related
configuration settings. You can\n      update any combination of settings in a single operation such as the:</p>\n
<ul>\n            <li>\n               <p>Subnets which you want to add to provision VPC endpoints.</p>\n            </li>\n
         <li>\n               <p>Subnets which you want to remove the VPC endpoints from.</p>\n            </li>\n
<li>\n               <p>Security group ID which permits traffic to the VPC endpoints.</p>\n            </li>\n         </ul>",
                  "smithy.api#required": {}
               }
            }
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettingsResponse": {
         "type": "structure",
         "members": {
            "IdentityProviderSummary": {
               "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary",
               "traits": {
                  "smithy.api#required": {}
               }
            }
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#UpdateSettings": {
         "type": "structure",
         "members": {
            "AddSubnets": {

          "target": "com.amazonaws.licensemanagerusersubscriptions#Subnets",
               "traits": {
                  "smithy.api#documentation": "<p>The ID of one or more subnets in which License Manager will
create a VPC endpoint for products that\n      require connectivity to activation servers.</p>",
                  "smithy.api#required": {}
               }
            },
            "RemoveSubnets": {
               "target": "com.amazonaws.licensemanagerusersubscriptions#Subnets",
               "traits": {
                  "smithy.api#documentation": "<p>The ID of one or more subnets to remove.</p>",
                  "smithy.api#required": {}
               }
            },
            "SecurityGroupId": {
               "target": "com.amazonaws.licensemanagerusersubscriptions#SecurityGroup",
               "traits": {
                  "smithy.api#documentation": "<p>A security group ID
```

```
 that allows inbound TCP port 1688 communication between resources in\n      your VPC and the VPC endpoints for activation servers.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>Updates the registered identity providers product related configuration settings such as\n      the subnets to provision VPC endpoints.</p>"
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ValidationException": {
        "type": "structure",
        "members": {
            "message": {
                "target": "smithy.api#String"
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>A parameter is not valid.</p>",
            "smithy.api#error": "client"
        }
    }
  }
}
```

1.570 aws-sdk-go-v2-feature-ec2-imds 1.16.11

1.570.1 Available under license :

```
name: License Scan

on: [pull_request]

jobs:
 licensescan:
   name: License Scan
   runs-on: ubuntu-latest
   strategy:
     matrix:
       python-version: [3.9]

   steps:
     - name: Checkout target
       uses: actions/checkout@v2
       with:
         path: sdkbase
         ref: ${{ github.base_ref }}
     - name: Checkout this ref
```

```
      uses: actions/checkout@v2
      with:
        path: new-ref
        fetch-depth: 0
    - name: Get Diff
      run: git --git-dir ./new-ref/.git diff --name-only --diff-filter=ACMRT ${{ github.event.pull_request.base.sha }} ${{ github.sha }} > refDiffFiles.txt
    - name: Get Target Files
      run: git --git-dir ./sdkbase/.git ls-files | grep -xf refDiffFiles.txt - > targetFiles.txt
    - name: Checkout scancode
      uses: actions/checkout@v2
      with:
        repository: nexB/scancode-toolkit
        path: scancode-toolkit
        fetch-depth: 1
    - name: Set up Python ${{ matrix.python-version }}
      uses: actions/setup-python@v2
      with:
        python-version: ${{ matrix.python-version }}
    # ScanCode
    - name: Self-configure scancode
      working-directory: ./scancode-toolkit
      run: ./scancode --help
    - name: Run Scan code on target
      run: cat targetFiles.txt | while read filename; do echo ./sdkbase/$filename; done | xargs ./scancode-toolkit/scancode -l -n 30 --json-pp - | grep short_name | sort | uniq >> old-licenses.txt
    - name: Run Scan code on pr ref
      run: cat refDiffFiles.txt | while read filename; do echo ./new-ref/$filename; done | xargs ./scancode-toolkit/scancode -l -n 30 --json-pp - | grep short_name | sort | uniq >> new-licenses.txt
    # compare
    - name: License test
      run: if ! cmp old-licenses.txt new-licenses.txt; then echo "Licenses differ! Failing."; exit -1; else echo "Licenses are the same. Success."; exit 0; fi
CreateLicense
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
  OperationInputValidation
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
 Build stack step
  ClientRequestID
  ComputeContentLength
  UserAgent
  AddTimeOffsetMiddleware
```

RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
AddTimeOffsetMiddleware
RecordResponseTiming
RequestResponseLogger
ListReceivedLicenses
Initialize stack step
RegisterServiceMetadata
legacyEndpointContextSetter
SetLogger
Serialize stack step
setOperationInput
ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
UserAgent
AddTimeOffsetMiddleware
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata

```
 ErrorCloseResponseBody
 CloseResponseBody
 ResponseErrorWrapper
 RequestIDRetriever
 OperationDeserializer
 AddTimeOffsetMiddleware
 RecordResponseTiming
 RequestResponseLogger
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Checks out the specified license.
//
// If the account that created the license is the same that is performing the
// check out, you must specify the account as the beneficiary.
func (c *Client) CheckoutLicense(ctx context.Context, params *CheckoutLicenseInput, optFns ...func(*Options))
(*CheckoutLicenseOutput, error) {
 if params == nil {
  params = &CheckoutLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "CheckoutLicense", params, optFns,
c.addOperationCheckoutLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*CheckoutLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type CheckoutLicenseInput struct {

 //
 Checkout type.
 //
 // This member is required.
```

```
 CheckoutType types.CheckoutType

 // Unique, case-sensitive identifier that you provide to ensure the idempotency of
 // the request.
 //
 // This member is required.
 ClientToken *string

 // License entitlements.
 //
 // This member is required.
 Entitlements []types.EntitlementData

 // Key fingerprint identifying the license.
 //
 // This member is required.
 KeyFingerprint *string

 // Product SKU.
 //
 // This member is required.
 ProductSKU *string

 // License beneficiary.
 Beneficiary *string

 // Node ID.
 NodeId *string

 noSmithyDocumentSerde
}

type CheckoutLicenseOutput struct {

 // Checkout type.
 CheckoutType types.CheckoutType

 // Allowed license entitlements.
 EntitlementsAllowed []types.EntitlementData

 // Date and time at which the license checkout expires.
 Expiration *string

 // Date and time at which the license checkout is issued.
 IssuedAt *string

 // Amazon Resource Name (ARN) of the checkout license.
 LicenseArn
```

```
*string

// License consumption token.
LicenseConsumptionToken *string

// Node ID.
NodeId *string

// Signed token.
SignedToken *string

// Metadata pertaining to the operation's result.
ResultMetadata middleware.Metadata

noSmithyDocumentSerde
}

func (c *Client) addOperationCheckoutLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpCheckoutLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpCheckoutLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "CheckoutLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack,
 options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
```

```
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
  return err
 }
 if err = addUserAgentRetryMode(stack,
 options); err != nil {
  return err
 }
 if err = addOpCheckoutLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opCheckoutLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
```

```
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opCheckoutLicense(region string) *awsmiddleware.RegisterServiceMetadata
{
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:    ServiceID,
  OperationName: "CheckoutLicense",
 }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Creates a license.
func (c *Client) CreateLicense(ctx context.Context, params *CreateLicenseInput, optFns ...func(*Options))
(*CreateLicenseOutput, error) {
 if params == nil {
  params = &CreateLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "CreateLicense", params, optFns,
c.addOperationCreateLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*CreateLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}
```

```
type CreateLicenseInput struct {

 // License beneficiary.
 //
 // This member is required.
 Beneficiary *string

 // Unique, case-sensitive identifier that you provide to ensure the idempotency of
 // the request.
 //
 //
 This member is required.
 ClientToken *string

 // Configuration for consumption of the license. Choose a provisional
 // configuration for workloads running with continuous connectivity. Choose a
 // borrow configuration for workloads with offline usage.
 //
 // This member is required.
 ConsumptionConfiguration *types.ConsumptionConfiguration

 // License entitlements.
 //
 // This member is required.
 Entitlements []types.Entitlement

 // Home Region for the license.
 //
 // This member is required.
 HomeRegion *string

 // License issuer.
 //
 // This member is required.
 Issuer *types.Issuer

 // License name.
 //
 // This member is required.
 LicenseName *string

 // Product name.
 //
 // This member is required.
 ProductName *string

 // Product SKU.
 //
```

```
 // This member is required.
 ProductSKU *string

 // Date and time range during which the license is valid, in ISO8601-UTC format.
 //
 // This member is required.
 Validity *types.DatetimeRange

 // Information about
 the license.
 LicenseMetadata []types.Metadata

 noSmithyDocumentSerde
}

type CreateLicenseOutput struct {

 // Amazon Resource Name (ARN) of the license.
 LicenseArn *string

 // License status.
 Status types.LicenseStatus

 // License version.
 Version *string

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationCreateLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpCreateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpCreateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "CreateLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }
```

```
if
err = addlegacyEndpointContextSetter(stack, options); err != nil {
 return err
}
if err = addSetLoggerMiddleware(stack, options); err != nil {
 return err
}
if err = addClientRequestID(stack); err != nil {
 return err
}
if err = addComputeContentLength(stack); err != nil {
 return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
 return err
}
if err = addComputePayloadSHA256(stack); err != nil {
 return err
}
if err = addRetry(stack, options); err != nil {
 return err
}
if err = addRawResponseToMetadata(stack); err != nil {
 return err
}
if err = addRecordResponseTiming(stack); err != nil {
 return err
}
if err = addClientUserAgent(stack, options); err != nil {
 return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
 return
err
}
if err = addTimeOffsetBuild(stack, c); err != nil {
 return err
}
if err = addUserAgentRetryMode(stack, options); err != nil {
 return err
}
if err = addOpCreateLicenseValidationMiddleware(stack); err != nil {
```

```
 return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opCreateLicense(options.Region),
middleware.Before); err != nil {
 return err
 }
 if err = addRecursionDetection(stack); err != nil {
 return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
 return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
 return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
 return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
 return err
 }
 return nil
}

func newServiceMetadataMiddleware_opCreateLicense(region string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:    ServiceID,
  OperationName:
 "CreateLicense",
 }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package grafana

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/grafana/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Removes the Grafana Enterprise license from a workspace.
func (c *Client) DisassociateLicense(ctx context.Context, params *DisassociateLicenseInput, optFns
...func(*Options)) (*DisassociateLicenseOutput, error) {
```

```
 if params == nil {
  params = &DisassociateLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "DisassociateLicense", params, optFns,
c.addOperationDisassociateLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*DisassociateLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type DisassociateLicenseInput struct {

 // The type of license to remove from the workspace.
 //
 // This member is required.
 LicenseType types.LicenseType

 //
 The ID of the workspace to remove the Grafana Enterprise license from.
 //
 // This member is required.
 WorkspaceId *string

 noSmithyDocumentSerde
}

type DisassociateLicenseOutput struct {

 // A structure containing information about the workspace.
 //
 // This member is required.
 Workspace *types.WorkspaceDescription

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationDisassociateLicenseMiddlewares(stack *middleware.Stack, options Options) (err
error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
```

```
}
err = stack.Serialize.Add(&awsRestjson1_serializeOpDisassociateLicense{}, middleware.After)
if err != nil {
 return err
}
err = stack.Deserialize.Add(&awsRestjson1_deserializeOpDisassociateLicense{}, middleware.After)
if err != nil {
 return err
}
if err := addProtocolFinalizerMiddlewares(stack, options, "DisassociateLicense");
err != nil {
 return fmt.Errorf("add protocol finalizers: %v", err)
}

if err = addlegacyEndpointContextSetter(stack, options); err != nil {
 return err
}
if err = addSetLoggerMiddleware(stack, options); err != nil {
 return err
}
if err = addClientRequestID(stack); err != nil {
 return err
}
if err = addComputeContentLength(stack); err != nil {
 return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
 return err
}
if err = addComputePayloadSHA256(stack); err != nil {
 return err
}
if err = addRetry(stack, options); err != nil {
 return err
}
if err = addRawResponseToMetadata(stack); err != nil {
 return err
}
if err = addRecordResponseTiming(stack); err != nil {
 return err
}
if err = addClientUserAgent(stack, options); err != nil {
 return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil
```

```
 {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
  return err
 }
 if err = addUserAgentRetryMode(stack, options); err != nil {
  return err
 }
 if err = addOpDisassociateLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opDisassociateLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opDisassociateLicense(region string)
*awsmiddleware.RegisterServiceMetadata
 {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:    ServiceID,
  OperationName: "DisassociateLicense",
 }
}
CheckoutLicense
 Initialize stack step
```

RegisterServiceMetadata
legacyEndpointContextSetter
SetLogger
OperationInputValidation
Serialize stack step
setOperationInput
ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
UserAgent
AddTimeOffsetMiddleware
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
AddTimeOffsetMiddleware
RecordResponseTiming
RequestResponseLogger
DisassociateLicense
Initialize stack step
RegisterServiceMetadata
legacyEndpointContextSetter
SetLogger
OperationInputValidation
Serialize stack step
setOperationInput
ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
UserAgent

AddTimeOffsetMiddleware
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
AddTimeOffsetMiddleware
RecordResponseTiming
RequestResponseLogger
CheckoutBorrowLicense
Initialize stack step
RegisterServiceMetadata
legacyEndpointContextSetter
SetLogger
OperationInputValidation
Serialize stack step
setOperationInput
ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
UserAgent
AddTimeOffsetMiddleware
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing

Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
AddTimeOffsetMiddleware
RecordResponseTiming
RequestResponseLogger
AssociateLicense
Initialize stack step
RegisterServiceMetadata
legacyEndpointContextSetter
SetLogger
OperationInputValidation
Serialize stack step
setOperationInput
ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
UserAgent
AddTimeOffsetMiddleware
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
AddTimeOffsetMiddleware
RecordResponseTiming
RequestResponseLogger
// Code generated by smithy-go-codegen DO NOT EDIT.

```
package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Lists received licenses.
func (c *Client) ListReceivedLicenses(ctx context.Context, params *ListReceivedLicensesInput, optFns
...func(*Options)) (*ListReceivedLicensesOutput, error) {
 if params == nil {
  params = &ListReceivedLicensesInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "ListReceivedLicenses", params, optFns,
c.addOperationListReceivedLicensesMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*ListReceivedLicensesOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type ListReceivedLicensesInput struct {

 // Filters to scope the results. The following filters are supported:
 //
 //   - ProductSKU
 //
 //   - Status
 //
 //
   - Fingerprint
 //
 //   - IssuerName
 //
 //   - Beneficiary
 Filters []types.Filter

 // Amazon Resource Names (ARNs) of the licenses.
 LicenseArns []string
```

```
 // Maximum number of results to return in a single call.
 MaxResults *int32

 // Token for the next set of results.
 NextToken *string

 noSmithyDocumentSerde
}

type ListReceivedLicensesOutput struct {

 // Received license details.
 Licenses []types.GrantedLicense

 // Token for the next set of results.
 NextToken *string

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationListReceivedLicensesMiddlewares(stack *middleware.Stack, options Options) (err
error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpListReceivedLicenses{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpListReceivedLicenses{},
 middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "ListReceivedLicenses"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
```

```
 return err
}
if err = addComputeContentLength(stack); err != nil {
 return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
 return err
}
if err = addComputePayloadSHA256(stack); err != nil {
 return err
}
if err = addRetry(stack, options); err != nil {
 return err
}
if err = addRawResponseToMetadata(stack); err != nil {
 return err
}
if err = addRecordResponseTiming(stack); err != nil {
 return err
}
if err = addClientUserAgent(stack, options); err != nil {
 return err
}
if err
= smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
 return err
}
if err = addTimeOffsetBuild(stack, c); err != nil {
 return err
}
if err = addUserAgentRetryMode(stack, options); err != nil {
 return err
}
if err = stack.Initialize.Add(newServiceMetadataMiddleware_opListReceivedLicenses(options.Region),
middleware.Before); err != nil {
 return err
}
if err = addRecursionDetection(stack); err != nil {
 return err
}
if err = addRequestIDRetrieverMiddleware(stack); err != nil {
 return err
```

```
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opListReceivedLicenses(region
 string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName: "ListReceivedLicenses",
 }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Gets detailed information about the specified license.
func (c *Client) GetLicense(ctx context.Context, params *GetLicenseInput, optFns ...func(*Options))
(*GetLicenseOutput, error) {
 if params == nil {
  params = &GetLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "GetLicense", params, optFns,
c.addOperationGetLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*GetLicenseOutput)
```

```
 out.ResultMetadata = metadata
 return out, nil
}

type GetLicenseInput struct {

 // Amazon Resource Name (ARN) of the license.
 //
 // This member is required.
 LicenseArn *string

 // License version.
 Version *string

 noSmithyDocumentSerde
}

type
 GetLicenseOutput struct {

 // License details.
 License *types.License

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationGetLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpGetLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpGetLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "GetLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
```

```
if err = addSetLoggerMiddleware(stack, options); err != nil {
 return err
}
if err = addClientRequestID(stack); err
!= nil {
 return err
}
if err = addComputeContentLength(stack); err != nil {
 return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
 return err
}
if err = addComputePayloadSHA256(stack); err != nil {
 return err
}
if err = addRetry(stack, options); err != nil {
 return err
}
if err = addRawResponseToMetadata(stack); err != nil {
 return err
}
if err = addRecordResponseTiming(stack); err != nil {
 return err
}
if err = addClientUserAgent(stack, options); err != nil {
 return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
 return err
}
if err = addTimeOffsetBuild(stack, c); err != nil {
 return err
}
if err = addUserAgentRetryMode(stack, options); err != nil {
 return err
}
if err = addOpGetLicenseValidationMiddleware(stack);
err != nil {
 return err
}
if err = stack.Initialize.Add(newServiceMetadataMiddleware_opGetLicense(options.Region), middleware.Before);
```

```
err != nil {
 return err
 }
 if err = addRecursionDetection(stack); err != nil {
 return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
 return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
 return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
 return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
 return err
 }
 return nil
}

func newServiceMetadataMiddleware_opGetLicense(region string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName: "GetLicense",
 }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package grafana

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/grafana/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Assigns a Grafana Enterprise license to a workspace. To upgrade, you must use
// ENTERPRISE for the licenseType , and pass in a valid Grafana Labs token for the
// grafanaToken . Upgrading to Grafana Enterprise incurs additional fees. For more
// information, see [Upgrade a workspace to Grafana Enterprise].
//
// [Upgrade a workspace to Grafana Enterprise]: https://docs.aws.amazon.com/grafana/latest/userguide/upgrade-to-Grafana-Enterprise.html
```

```
func (c *Client) AssociateLicense(ctx context.Context, params *AssociateLicenseInput, optFns ...func(*Options))
(*AssociateLicenseOutput, error) {
 if params == nil {
  params = &AssociateLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx,
 "AssociateLicense", params, optFns, c.addOperationAssociateLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*AssociateLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type AssociateLicenseInput struct {

 // The type of license to associate with the workspace.
 //
 // Amazon Managed Grafana workspaces no longer support Grafana Enterprise free
 // trials.
 //
 // This member is required.
 LicenseType types.LicenseType

 // The ID of the workspace to associate the license with.
 //
 // This member is required.
 WorkspaceId *string

 // A token from Grafana Labs that ties your Amazon Web Services account with a
 // Grafana Labs account. For more information, see [Link your account with Grafana Labs].
 //
 // [Link your account with Grafana Labs]: https://docs.aws.amazon.com/grafana/latest/userguide/upgrade-to-
Grafana-Enterprise.html#AMG-workspace-register-enterprise
 GrafanaToken *string

 noSmithyDocumentSerde
}

type AssociateLicenseOutput
 struct {

 // A structure containing data about the workspace.
 //
 // This member is required.
```

```
 Workspace *types.WorkspaceDescription

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationAssociateLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsRestjson1_serializeOpAssociateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsRestjson1_deserializeOpAssociateLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "AssociateLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack,
options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
```

```
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
  return err
 }
 if err = addUserAgentRetryMode(stack,
 options); err != nil {
  return err
 }
 if err = addOpAssociateLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opAssociateLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}
```

```
func newServiceMetadataMiddleware_opAssociateLicense(region string)
*awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName: "AssociateLicense",
 }
}
ListLicenses
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
 Build stack step
  ClientRequestID
  ComputeContentLength
  UserAgent
  AddTimeOffsetMiddleware
  RecursionDetection
 Finalize stack step
  ResolveAuthScheme
  GetIdentity
  ResolveEndpointV2
  disableHTTPS
  ComputePayloadHash
  Retry
  RetryMetricsHeader
  setLegacyContextSigningOptions
  Signing
 Deserialize stack step
  AddRawResponseToMetadata
  ErrorCloseResponseBody
  CloseResponseBody
  ResponseErrorWrapper
  RequestIDRetriever
  OperationDeserializer
  AddTimeOffsetMiddleware
  RecordResponseTiming
  RequestResponseLogger
AWS SDK for Go
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{
   "smithy": "2.0",
```

```
  "shapes": {
    "com.amazonaws.licensemanagerlinuxsubscriptions#BoxInteger": {
      "type": "integer"
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#BoxLong": {
      "type": "long"
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#DeregisterSubscriptionProvider": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#DeregisterSubscriptionProviderRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#DeregisterSubscriptionProviderResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
        },
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ResourceNotFoundException"
        },

    {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
        },
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Remove a third-party subscription provider from the Bring Your Own
License (BYOL) subscriptions \n\t\t\tregistered to your account.</p>",
        "smithy.api#http": {
          "code": 200,
          "method": "POST",
          "uri": "/subscription/DeregisterSubscriptionProvider"
        },
        "smithy.api#idempotent": {}
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#DeregisterSubscriptionProviderRequest": {
      "type": "structure",
      "members": {
        "SubscriptionProviderArn": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn",
           "traits": {
             "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the subscription provider
```

```
resource to deregister.</p>",
                    "smithy.api#required": {}
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#DeregisterSubscriptionProviderResponse": {
        "type": "structure",
        "members": {},
        "traits": {
            "smithy.api#output": {}
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#Filter": {
        "type": "structure",
        "members": {
            "Name": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The type of name to filter by.</p>"
                 }
            },
            "Values": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringList",
                "traits": {
                    "smithy.api#documentation": "<p>One or more values for the name to filter by.</p>"
                }
            },
            "Operator": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Operator",
                "traits": {
                    "smithy.api#documentation": "<p>An operator for filtering results.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>A filter object that is used to return more specific results from a describe
operation.\n      Filters can be used to match a set of resources by specific criteria.</p>"
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#FilterList": {
        "type":
 "list",
        "member": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Filter"
```

```
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#GetRegisteredSubscriptionProvider": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#GetRegisteredSubscriptionProviderRequest"
        },
        "output": {
          "target":
"com.amazonaws.licensemanagerlinuxsubscriptions#GetRegisteredSubscriptionProviderResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ResourceNotFoundException"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
           },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Get details for a Bring Your Own License (BYOL) subscription that's
registered to your account.</p>",
          "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/subscription/GetRegisteredSubscriptionProvider"
          },
          "smithy.api#idempotent": {}
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#GetRegisteredSubscriptionProviderRequest": {
        "type": "structure",
        "members": {
          "SubscriptionProviderArn": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn",
            "traits": {
              "smithy.api#documentation":
 "<p>The Amazon Resource Name (ARN) of the BYOL registration resource to get details for.</p>",
              "smithy.api#required": {}
            }
          }
        },
```

```
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#GetRegisteredSubscriptionProviderResponse": {
        "type": "structure",
        "members": {
            "SubscriptionProviderArn": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn",
                "traits": {
                    "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) for the BYOL registration
resource specified in the request.</p>"
                }
            },
            "SubscriptionProviderSource": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderSource",

          "traits": {
                    "smithy.api#documentation": "<p>The subscription provider for the BYOL registration resource
specified \n\t\t\tin the request.</p>"
                }
            },
            "SecretArn": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SecretArn",
                "traits": {
                    "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the third-party access
secret stored in Secrets Manager for the BYOL \n\t\t\tregistration resource specified in the request.</p>"
                }
            },
            "SubscriptionProviderStatus": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderStatus",
                "traits": {
                    "smithy.api#documentation": "<p>The status of the Linux subscription provider access token from the
last \n\t\t\tsuccessful subscription data request.</p>"
                 }
            },
            "SubscriptionProviderStatusMessage": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The detailed message from your subscription provider token
status.</p>"
                }
            },
            "LastSuccessfulDataRetrievalTime": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The timestamp from the last time License Manager retrieved
subscription details \n\t\t\tfrom your registered third-party Linux subscription provider.</p>"
```

```
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettings": {
        "type": "operation",
        "input": {
          "target":
"com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettingsRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettingsResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Lists the Linux subscriptions service settings for your account.</p>",
          "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/subscription/GetServiceSettings"

          },
          "smithy.api#idempotent": {}
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettingsRequest": {
        "type": "structure",
        "members": {}
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettingsResponse": {
        "type": "structure",
        "members": {
          "LinuxSubscriptionsDiscovery": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscovery",
            "traits": {
```

```
                "smithy.api#documentation": "<p>Lists if discovery has been enabled for Linux subscriptions.</p>"
              }
            },
            "LinuxSubscriptionsDiscoverySettings": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscoverySettings",
              "traits": {
                "smithy.api#documentation": "<p>Lists
 the settings defined for Linux subscriptions discovery. The settings include if\n      Organizations integration has been enabled, and which Regions data will be aggregated from.</p>"
              }
            },
            "Status": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Status",
              "traits": {
                "smithy.api#documentation": "<p>Indicates the status of Linux subscriptions settings being applied.</p>"
              }
            },
            "StatusMessage": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringMap",
              "traits": {
                "smithy.api#documentation": "<p>A message which details the Linux subscriptions service settings current status.</p>"
              }
            },
            "HomeRegions": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringList",
               "traits": {
                "smithy.api#documentation": "<p>The Region in which License Manager displays the aggregated data for Linux\n      subscriptions.</p>"
              }
            }
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#Instance": {
          "type": "structure",
          "members": {
            "AmiId": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The AMI ID used to launch the instance.</p>"
              }
            },
            "InstanceID": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The instance ID of the resource.</p>"
              }
```

```
        },
        "InstanceType": {
          "target": "smithy.api#String",
          "traits":
{
            "smithy.api#documentation": "<p>The instance type of the resource.</p>"
          }
        },
        "AccountID": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The account ID which owns the instance.</p>"
          }
        },
        "Status": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The status of the instance.</p>"
          }
        },
        "Region": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The Region the instance is running in.</p>"
          }
        },
        "UsageOperation": {
          "target": "smithy.api#String",

   "traits": {
            "smithy.api#documentation": "<p>The usage operation of the instance. For more information, see For more information, see\n        <a href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/linux-subscriptions-usage-operation.html\">Usage\n        operation values</a> in the <i>License Manager User Guide</i>.</p>"
          }
        },
        "ProductCode": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ProductCodeList",
          "traits": {
            "smithy.api#documentation": "<p>The product code for the instance. For more information, see <a href=\"https://docs.aws.amazon.com/license-manager/latest/userguide/linux-subscriptions-usage-operation.html\">Usage\n        operation values</a> in the <i>License Manager User Guide</i> .</p>"
          }
        },
        "LastUpdatedTime": {
          "target": "smithy.api#String",
           "traits": {
            "smithy.api#documentation": "<p>The time in which the last discovery updated the instance
```

```
details.</p>"
                }
            },
            "SubscriptionName": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The name of the license subscription that the instance uses.</p>"
                }
            },
            "OsVersion": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The operating system software version that runs on your
instance.</p>"
                }
            },
            "SubscriptionProviderCreateTime": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The timestamp when you registered
 the third-party Linux subscription \n\t\t\tprovider for the subscription that the instance uses.</p>"
                }
            },
            "SubscriptionProviderUpdateTime": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The timestamp from the last time that the instance synced with the
registered \n\t\t\tthird-party Linux subscription provider.</p>"
                }
            },
            "DualSubscription": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>Indicates that you have two different license subscriptions for
\n\t\t\tthe same software on your instance.</p>"
                }
            },
            "RegisteredWithSubscriptionProvider": {
                "target": "smithy.api#String",
                "traits": {

    "smithy.api#documentation": "<p>Indicates that your instance uses a BYOL license subscription from \n\t\t\ta
third-party Linux subscription provider that you've registered with License Manager.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>Details discovered information about a running instance using Linux
```

```
subscriptions.</p>"
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#InstanceList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Instance"
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException": {
        "type": "structure",
        "members": {
          "message": {
            "target": "smithy.api#String"
          }
        },
        "traits": {
          "smithy.api#documentation":
 "<p>An exception occurred with the service.</p>",
          "smithy.api#error": "server"
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#LicenseManagerLinuxSubscriptions": {
        "type": "service",
        "version": "2018-05-10",
        "operations": [
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#DeregisterSubscriptionProvider"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#GetRegisteredSubscriptionProvider"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#GetServiceSettings"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstances"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptions"
           },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListRegisteredSubscriptionProviders"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListTagsForResource"
          },
          {
```

```
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#RegisterSubscriptionProvider"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#TagResource"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UntagResource"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettings"
          }
        ],
        "traits": {
          "aws.api#service": {
            "sdkId": "License Manager Linux Subscriptions",
             "arnNamespace": "license-manager-linux-subscriptions",
            "cloudTrailEventSource": "license-manager-linux-subscriptions.amazonaws.com"
          },
          "aws.auth#sigv4": {
            "name": "license-manager-linux-subscriptions"
          },
          "aws.protocols#restJson1": {},
          "smithy.api#cors": {
            "additionalAllowedHeaders": [
              "*",
              "content-type",
              "x-amz-content-sha256",
              "x-amz-user-agent",
              "x-amzn-platform-id",
              "x-amzn-trace-id"
            ],
            "additionalExposedHeaders": [
              "x-amzn-errortype",
              "x-amzn-requestid",
              "x-amzn-trace-id"
            ]
          },
          "smithy.api#documentation": "<p>With License Manager,
    you can discover and track your commercial Linux subscriptions on running\n      Amazon EC2 instances.</p>",
          "smithy.api#title": "AWS License Manager Linux Subscriptions",
          "smithy.rules#endpointRuleSet": {
            "version": "1.0",
            "parameters": {
              "Region": {
                "builtIn": "AWS::Region",
                "required": false,
                "documentation": "The AWS region used to dispatch the request.",
                "type": "String"
```

```
        },
        "UseDualStack": {
          "builtIn": "AWS::UseDualStack",
          "required": true,
          "default": false,
          "documentation": "When true, use the dual-stack endpoint. If the configured endpoint does not
support dual-stack, dispatching the request MAY return an error.",
           "type": "Boolean"
        },
        "UseFIPS": {
          "builtIn": "AWS::UseFIPS",
          "required": true,
          "default": false,
          "documentation": "When true, send this request to the FIPS-compliant regional endpoint. If the
configured endpoint does not have a FIPS compliant endpoint, dispatching the request will return an error.",
          "type": "Boolean"
        },
        "Endpoint": {
          "builtIn": "SDK::Endpoint",
          "required": false,
          "documentation": "Override the endpoint used to send this request",
          "type": "String"
        }
      },
      "rules": [
        {
          "conditions": [
            {
              "fn": "isSet",
              "argv": [
                {
                  "ref": "Endpoint"
                }
              ]
            }
          ],
          "rules": [
            {
              "conditions": [
                {
                  "fn": "booleanEquals",
                  "argv": [
                    {
                      "ref": "UseFIPS"
                    },
                    true
                  ]
                }
```

```
        ],
                    "error": "Invalid Configuration: FIPS and custom endpoint are not supported",
                    "type": "error"
                },
                {
                    "conditions": [],
                    "rules": [
                        {
                            "conditions": [
                                {
                                    "fn": "booleanEquals",
                                    "argv": [
                                        {
                                            "ref": "UseDualStack"
                                        },
                                        true
                                    ]

}
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                            "type": "error"
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                                "properties": {},
                                "headers": {}
                            },
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                "conditions": [],
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                            {
```

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                "argv": [
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                    "ref": "Region"
                  }
                ]
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                "conditions": [
                  {

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                      }
                    ],
                    "assign": "PartitionResult"
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                        "argv": [
                          {

                       "ref": "UseFIPS"
                          },
                          true
                        ]
                      },
                      {
                        "fn": "booleanEquals",
                        "argv": [
                          {
                            "ref": "UseDualStack"
                          },
                          true
                        ]
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                      {
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                    "argv": [
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                      {
                        "fn": "getAttr",
                        "argv": [
                          {
                            "ref": "PartitionResult"

},
                          "supportsFIPS"
                        ]
                      }
                    ]
                  },
                  {
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                    "argv": [
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                      {
                        "fn": "getAttr",
                        "argv": [

                         {
                            "ref": "PartitionResult"
                          },
                          "supportsDualStack"
                        ]
                      }
                    ]
                  }
                ],
                "rules": [
                  {
                    "conditions": [],

    "rules": [
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fips.{Region}.{PartitionResult#dualStackDnsSuffix}",
                          "properties": {},
                          "headers": {}
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                            "type": "tree"
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                                        },
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                                    ]
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                                    "conditions": [
                                        {

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                                                    "fn": "getAttr",
                                                    "argv": [
                                                        {
                                                            "ref": "PartitionResult"
                                                        },
                                                        "supportsFIPS"
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    "properties": {},
                                                "headers": {}
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                                            "type": "endpoint"
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                                    "type": "tree"
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 but this partition does not support FIPS",
                            "type": "error"
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                            "argv": [
                                {
                                    "ref": "UseDualStack"
                                },
                                true

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```

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                    "argv": [
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                      {
                        "fn": "getAttr",
                        "argv": [
                          {

                          "ref": "PartitionResult"
                          },
                          "supportsDualStack"
                        ]
                      }
                    ]
                  }
                ],
                "rules": [
                  {
                    "conditions": [],
                    "rules": [

        {
                          "conditions": [],
                          "endpoint": {
                            "url": "https://license-manager-linux-
subscriptions.{Region}.{PartitionResult#dualStackDnsSuffix}",
                            "properties": {},
                            "headers": {}
                          },
                          "type": "endpoint"
                        }
                    ],
                    "type": "tree"

                }
                ],
                "type": "tree"
              },
              {
                "conditions": [],
                "error": "DualStack is enabled but this partition does not support DualStack",
                "type": "error"
              }
            ],
            "type": "tree"
          },
```

```
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                                    "conditions": [],
                                    "rules": [
                                        {
                                            "conditions": [],
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subscriptions.{Region}.{PartitionResult#dnsSuffix}",
                                                "properties": {},
                                                "headers": {}
                                            },
                                            "type": "endpoint"
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                                    "type": "tree"
                                }
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                            "type": "tree"
                        }
                    ],
                    "type": "tree"
                },
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                    "type": "error"
                }
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            "type": "tree"
        }
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},
"smithy.rules#endpointTests": {
    "testCases": [
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            "documentation": "For region us-east-1 with FIPS enabled and DualStack enabled",
            "expect": {
                "endpoint": {
                    "url": "https://license-manager-linux-subscriptions-fips.us-east-1.api.aws"

        }
            },
            "params": {
                "Region": "us-east-1",
                "UseFIPS": true,
                "UseDualStack": true
            }
        },
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        }
      },
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        "UseFIPS": true,
        "UseDualStack": false
      }
    },
    {

   "documentation": "For region us-east-1 with FIPS disabled and DualStack enabled",
      "expect": {
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        }
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        "UseFIPS": false,
        "UseDualStack": true
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      "expect": {
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        }

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      "params": {
        "Region": "us-east-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region cn-north-1 with FIPS enabled and DualStack enabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-linux-subscriptions-fips.cn-north-
1.api.amazonwebservices.com.cn"
        }
```

```
      },
      "params": {
        "Region": "cn-north-1",
        "UseFIPS": true,
        "UseDualStack": true
      }
    },
    {

"documentation": "For region cn-north-1 with FIPS enabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-linux-subscriptions-fips.cn-north-1.amazonaws.com.cn"
        }
      },
      "params": {
        "Region": "cn-north-1",
        "UseFIPS": true,
        "UseDualStack": false
      }
    },
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      "expect": {
        "endpoint": {
          "url": "https://license-manager-linux-subscriptions.cn-north-1.api.amazonwebservices.com.cn"
        }
       },
      "params": {
        "Region": "cn-north-1",
        "UseFIPS": false,
        "UseDualStack": true
      }
    },
    {
      "documentation": "For region cn-north-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-linux-subscriptions.cn-north-1.amazonaws.com.cn"
        }
      },
      "params": {
        "Region": "cn-north-1",
        "UseFIPS": false,
        "UseDualStack": false
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    },
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"documentation": "For region us-gov-east-1 with FIPS enabled and DualStack enabled",
                "expect": {
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                  "UseDualStack": true
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                    "url": "https://license-manager-linux-subscriptions.us-gov-east-1.api.aws"
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```

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        "UseDualStack": false
      }
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      "expect": {
        "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
      },
      "params": {

    "Region": "us-iso-east-1",
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        "UseDualStack": true
      }
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    {
      "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-linux-subscriptions-fips.us-iso-east-1.c2s.ic.gov"
        }
      },
      "params": {
        "Region": "us-iso-east-1",
        "UseFIPS": true,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack
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      "expect": {
        "error": "DualStack is enabled but this partition does not support DualStack"
      },
      "params": {
        "Region": "us-iso-east-1",
        "UseFIPS": false,
        "UseDualStack": true
      }
    },
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      "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-linux-subscriptions.us-iso-east-1.c2s.ic.gov"
```

```
            }
          },
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            "Region": "us-iso-east-1",
            "UseFIPS":
false,
            "UseDualStack": false
          }
        },
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          "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack enabled",
          "expect": {
            "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
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          "params": {
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            "UseFIPS": true,
            "UseDualStack": true
          }
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        {
          "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-linux-subscriptions-fips.us-isob-east-1.sc2s.sgov.gov"
             }
          },
          "params": {
            "Region": "us-isob-east-1",
            "UseFIPS": true,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack enabled",
          "expect": {
            "error": "DualStack is enabled but this partition does not support DualStack"
          },
          "params": {
            "Region": "us-isob-east-1",
            "UseFIPS": false,
            "UseDualStack": true
          }
        },
        {

          "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack disabled",
          "expect": {
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            "endpoint": {
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            }
          },
          "params": {
            "Region": "us-isob-east-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For custom endpoint with region set and fips disabled and dualstack disabled",
          "expect": {
            "endpoint": {
              "url": "https://example.com"
            }

    },
          "params": {
            "Region": "us-east-1",
            "UseFIPS": false,
            "UseDualStack": false,
            "Endpoint": "https://example.com"
          }
        },
        {
          "documentation": "For custom endpoint with region not set and fips disabled and dualstack
disabled",
          "expect": {
            "endpoint": {
              "url": "https://example.com"
            }
          },
          "params": {
            "UseFIPS": false,
            "UseDualStack": false,
            "Endpoint": "https://example.com"
          }
        },
        {

          "documentation": "For custom endpoint with fips enabled and dualstack disabled",
          "expect": {
            "error": "Invalid Configuration: FIPS and custom endpoint are not supported"
          },
          "params": {
            "Region": "us-east-1",
            "UseFIPS": true,
```

```
                    "UseDualStack": false,
                    "Endpoint": "https://example.com"
                }
            },
            {
                "documentation": "For custom endpoint with fips disabled and dualstack enabled",
                "expect": {
                    "error": "Invalid Configuration: Dualstack and custom endpoint are not supported"
                },
                "params": {

"Region": "us-east-1",
                    "UseFIPS": false,
                    "UseDualStack": true,
                    "Endpoint": "https://example.com"
                }
            },
            {
                "documentation": "Missing region",
                "expect": {
                    "error": "Invalid Configuration: Missing Region"
                }
            }
        ],
        "version": "1.0"
      }
    }
  },
  "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscovery": {
    "type": "string",
    "traits": {
      "smithy.api#enum": [
        {
          "name": "Enabled",
          "value": "Enabled",
          "documentation": "Enabled LinuxSubscriptionsDiscovery"

   },
        {
          "name": "Disabled",
          "value": "Disabled",
          "documentation": "Disabled LinuxSubscriptionsDiscovery"
        }
      ]
    }
  },
  "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscoverySettings": {
    "type": "structure",
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```
        "members": {
          "SourceRegions": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringList",
            "traits": {
              "smithy.api#documentation": "<p>The Regions in which to discover data for Linux
subscriptions.</p>",
              "smithy.api#required": {}
            }
          },
          "OrganizationIntegration": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#OrganizationIntegration",
            "traits": {
              "smithy.api#documentation":
 "<p>Details if you have enabled resource discovery across your accounts in Organizations.</p>",
              "smithy.api#required": {}
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Lists the settings defined for discovering Linux subscriptions.</p>"
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstances": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstancesRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstancesResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
          },

  {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Lists the running Amazon EC2 instances that were discovered with
commercial Linux\n      subscriptions.</p>",
          "smithy.api#http": {
            "code": 200,
            "method": "POST",
```

```
            "uri": "/subscription/ListLinuxSubscriptionInstances"
          },
          "smithy.api#idempotent": {},
          "smithy.api#paginated": {
            "inputToken": "NextToken",
            "outputToken": "NextToken",
            "pageSize": "MaxResults",
            "items": "Instances"
          }
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstancesRequest":
{
        "type": "structure",
        "members": {
          "Filters": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#FilterList",
            "traits": {
              "smithy.api#documentation": "<p>An array of structures that you can use to filter the results by your
specified criteria. \n    \tFor example, you can specify <code>Region</code> in the <code>Name</code>, with the
\n    \t<code>contains</code> operator to list all subscriptions that match a partial string in the \n
\t<code>Value</code>, such as <code>us-west</code>.</p>\n          <p>For each filter, you can specify one of the
following values for the <code>Name</code> key \n    \tto streamline results:</p>\n          <ul>\n          <li>\n
  <p>\n              <code>AccountID</code>\n            </p>\n          </li>\n          <li>\n            <p>\n
    <code>AmiID</code>\n            </p>\n          </li>\n          <li>\n            <p>\n
<code>DualSubscription</code>\n            </p>\n          </li>\n          <li>\n            <p>\n
<code>InstanceID</code>\n            </p>\n          </li>\n          <li>\n            <p>\n
<code>InstanceType</code>\n            </p>\n          </li>\n          <li>\n            <p>\n
<code>ProductCode</code>\n            </p>\n          </li>\n          <li>\n            <p>\n
<code>Region</code>\n            </p>\n          </li>\n          <li>\n            <p>\n
<code>Status</code>\n            </p>\n          </li>\n          <li>\n            <p>\n
<code>UsageOperation</code>\n            </p>\n          </li>\n        </ul>\n        <p>For each filter, you can use
one of the following <code>Operator</code>
 values to \n  \t\tdefine the behavior of the filter:</p>\n        <ul>\n          <li>\n            <p>\n
<code>contains</code>\n            </p>\n          </li>\n          <li>\n            <p>\n
<code>equals</code>\n            </p>\n          </li>\n          <li>\n            <p>\n
<code>Notequal</code>\n            </p>\n          </li>\n        </ul>"
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#BoxInteger",
            "traits": {
              "smithy.api#documentation": "<p>The maximum items to return in a request.</p>"
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
```

```
                "smithy.api#documentation": "<p>A token to specify where to
 start paginating. This \n\tis the nextToken from a previously truncated response.</p>",
                "smithy.api#length": {
                  "min": 1,
                  "max": 16384
                }
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "NextToken length limit is half of ddb accepted limit.\nIncrease this limit if
parameters in request increases."
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionInstancesResponse": {
          "type": "structure",
          "members": {
            "Instances": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InstanceList",
              "traits": {
                "smithy.api#documentation": "<p>An array that contains instance objects.</p>"
              }
            },
            "NextToken": {

           "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The next token used for paginated responses. When this \n\tfield
isn't empty, there are additional elements that the service hasn't \n\tincluded in this request. Use this token with the
next request to retrieve \n\tadditional objects.</p>"
              }
            }
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptions": {
          "type": "operation",
          "input": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionsRequest"
          },
          "output": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionsResponse"
          },
          "errors": [
            {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
            },
             {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
```

```
            },
            {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Lists the Linux subscriptions that have been discovered. If you have linked your\n      organization, the returned results will include data aggregated across your accounts in\n Organizations.</p>",
            "smithy.api#http": {
               "code": 200,
               "method": "POST",
               "uri": "/subscription/ListLinuxSubscriptions"
            },
            "smithy.api#idempotent": {},
            "smithy.api#paginated": {
               "inputToken": "NextToken",
               "outputToken": "NextToken",
               "pageSize": "MaxResults",

   "items": "Subscriptions"
            }
         }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionsRequest": {
         "type": "structure",
         "members": {
            "Filters": {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#FilterList",
               "traits": {
                  "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those that match one or\n      more sets of key-value pairs that you specify. For example, you can filter by the name of\n <code>Subscription</code> with an optional operator to see subscriptions that match,\n      partially match, or don't match a certain subscription's name.</p>\n         <p>The valid names for this filter are:</p>\n         <ul>\n <li>\n            <p>\n               <code>Subscription</code>\n            </p>\n         </li>\n      </ul>\n <p>The
 valid Operators for this filter are:</p>\n         <ul>\n            <li>\n               <p>\n <code>contains</code>\n            </p>\n         </li>\n         <li>\n            <p>\n <code>equals</code>\n            </p>\n         </li>\n         <li>\n            <p>\n <code>Notequal</code>\n            </p>\n         </li>\n      </ul>"
               }
            },
            "MaxResults": {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#BoxInteger",
               "traits": {
                  "smithy.api#documentation": "<p>The maximum items to return in a request.</p>"
               }
            },
```

```
            "NextToken": {
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 the nextToken from a previously truncated response.</p>",
                  "smithy.api#length": {
                     "min": 1,
                     "max": 16384
                  }
               }
            }
         },
         "traits": {
            "smithy.api#documentation": "NextToken length limit is half of ddb accepted limit.\nIncrease this limit if
parameters in request increases."
         }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#ListLinuxSubscriptionsResponse": {
         "type": "structure",
         "members": {
            "Subscriptions": {
               "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionList",
               "traits": {
                  "smithy.api#documentation": "<p>An array that contains subscription objects.</p>"
               }
            },
            "NextToken": {
               "target": "smithy.api#String",
                "traits": {
                  "smithy.api#documentation": "<p>The next token used for paginated responses. When this \n\tfield
isn't empty, there are additional elements that the service hasn't \n\tincluded in this request. Use this token with the
next request to retrieve \n\tadditional objects.</p>"
               }
            }
         }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#ListRegisteredSubscriptionProviders": {
         "type": "operation",
         "input": {
            "target":
"com.amazonaws.licensemanagerlinuxsubscriptions#ListRegisteredSubscriptionProvidersRequest"
         },
         "output": {
            "target":
"com.amazonaws.licensemanagerlinuxsubscriptions#ListRegisteredSubscriptionProvidersResponse"
         },
         "errors": [
            {
```

```
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"

            },
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
            },
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>List Bring Your Own License (BYOL) subscription registration
resources for your account.</p>",
            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/subscription/ListRegisteredSubscriptionProviders"
            },
            "smithy.api#idempotent": {},
            "smithy.api#paginated": {
                "inputToken": "NextToken",
                "outputToken": "NextToken",
                "pageSize": "MaxResults",
                "items": "RegisteredSubscriptionProviders"
            }
        }

    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ListRegisteredSubscriptionProvidersRequest": {
        "type": "structure",
        "members": {
            "SubscriptionProviderSources": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderSourceList",
                "traits": {
                    "smithy.api#documentation": "<p>To filter your results, specify which subscription providers to
return \n\t\t\tin the list.</p>"
                }
            },
            "MaxResults": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#BoxInteger",
                "traits": {
                    "smithy.api#documentation": "<p>The maximum items to return in a request.</p>",
                    "smithy.api#range": {
                        "min": 1,
                        "max": 100
                    }
                }
```

```
  },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>A token to specify where to start paginating. This \n\tis the
nextToken from a previously truncated response.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#ListRegisteredSubscriptionProvidersResponse": {
        "type": "structure",
        "members": {
          "RegisteredSubscriptionProviders": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#RegisteredSubscriptionProviderList",
            "traits": {
              "smithy.api#documentation": "<p>The list of BYOL registration resources that fit the criteria
\n\t\t\tyou specified in the request.</p>"
            }
          },

           "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The next token used for paginated responses. When this \n\tfield
isn't empty, there are additional elements that the service hasn't \n\tincluded in this request. Use this token with the
next request to retrieve \n\tadditional objects.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#output": {}
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#ListTagsForResource": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListTagsForResourceRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ListTagsForResourceResponse"
        },
        "errors": [
          {
```

```
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
            },
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ResourceNotFoundException"
            },
            {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>List the metadata tags that are assigned to the \n\t\t\tspecified Amazon Web Services resource.</p>",
            "smithy.api#http": {
                "method": "GET",
                "uri": "/tags/{resourceArn}"
            },
            "smithy.api#readonly": {}
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ListTagsForResourceRequest": {
        "type": "structure",
        "members": {
            "resourceArn": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn",
                "traits": {
                    "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the resource for which to list metadata tags.</p>",
                    "smithy.api#httpLabel": {},
                    "smithy.api#required": {}
                }
            }
        },
        "traits": {
            "smithy.api#input": {}
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ListTagsForResourceResponse": {
        "type": "structure",
        "members": {
            "tags": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Tags",
                "traits": {
                    "smithy.api#documentation": "<p>The metadata tags for the requested resource.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#output": {}
```

```
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#Operator": {
        "type": "string",
        "traits": {
            "smithy.api#enum": [
                {
                    "name": "EQUAL",
                    "value": "Equal",
                    "documentation": "Equal operator"
                },
                {
                    "name": "NOT_EQUAL",
                    "value": "NotEqual",
                    "documentation": "Not equal operator"
                },
                {
                    "name": "CONTAINS",
                    "value": "Contains",
                    "documentation": "Contains operator"
                }
            ],
            "smithy.api#length": {
                "min": 1,
                "max": 20
            }
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#OrganizationIntegration":
{
        "type": "string",
        "traits": {
            "smithy.api#enum": [
                {
                    "name": "Enabled",
                    "value": "Enabled",
                    "documentation": "Enabled OrganizationIntegration"
                },
                {
                    "name": "Disabled",
                    "value": "Disabled",
                    "documentation": "Disabled OrganizationIntegration"
                }
            ]
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ProductCodeList": {
        "type": "list",
```

```
      "member": {
        "target": "smithy.api#String"
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#RegisterSubscriptionProvider": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#RegisterSubscriptionProviderRequest"
       },
      "output": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#RegisterSubscriptionProviderResponse"
      },
      "errors": [
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
        },
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
        },
        {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
        }
      ],
      "traits": {
        "smithy.api#documentation": "<p>Register the supported third-party subscription provider for your Bring
Your Own License (BYOL) subscription.</p>",
        "smithy.api#http": {
          "code": 200,
          "method": "POST",
          "uri": "/subscription/RegisterSubscriptionProvider"

         },
        "smithy.api#idempotent": {}
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#RegisterSubscriptionProviderRequest": {
      "type": "structure",
      "members": {
        "SubscriptionProviderSource": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderSource",
          "traits": {
            "smithy.api#documentation": "<p>The supported Linux subscription provider to register.</p>",
            "smithy.api#required": {}
          }
        },
        "SecretArn": {
          "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SecretArn",
          "traits": {
```

```
                "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the secret where you've
stored your subscription provider's access token. For \n\t\t\tRHEL subscriptions managed through the
 Red Hat Subscription Manager (RHSM), the secret contains \n\t\t\tyour Red Hat Offline token.</p>",
                "smithy.api#required": {}
              }
            },
            "Tags": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Tags",
              "traits": {
                "smithy.api#documentation": "<p>The metadata tags to assign to your registered Linux subscription
provider \n\t\t\tresource.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#input": {}
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#RegisterSubscriptionProviderResponse": {
          "type": "structure",
          "members": {
            "SubscriptionProviderSource": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderSource",
              "traits": {
                "smithy.api#documentation":
 "<p>The Linux subscription provider that you registered.</p>"
              }
            },
            "SubscriptionProviderArn": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the Linux subscription
provider resource that you registered.</p>"
              }
            },
            "SubscriptionProviderStatus": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderStatus",
              "traits": {
                "smithy.api#documentation": "<p>Indicates the status of the registration action for the Linux
subscription provider \n\t\t\tthat you requested.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#output": {}
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#RegisteredSubscriptionProvider":
```

```
{
        "type": "structure",
        "members": {
           "SubscriptionProviderArn": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn",
              "traits": {
                 "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the Linux subscription
provider resource that you registered.</p>"
              }
           },
           "SubscriptionProviderSource": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderSource",
              "traits": {
                 "smithy.api#documentation": "<p>A supported third-party Linux subscription provider. License
Manager currently supports \n\t\t\tRed Hat subscriptions.</p>"
              }
           },
           "SecretArn": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SecretArn",
               "traits": {
                 "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the Secrets Manager secret
that stores your registered Linux subscription provider \n\t\t\taccess token. For RHEL account subscriptions, this is
the offline token.</p>"
              }
           },
           "SubscriptionProviderStatus": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderStatus",
              "traits": {
                 "smithy.api#documentation": "<p>Indicates the status of your registered Linux subscription provider
access token \n\t\t\tfrom the last time License Manager retrieved subscription data. For RHEL account subscriptions,
\n\t\t\tthis is the status of the offline token.</p>"
              }
           },
           "SubscriptionProviderStatusMessage": {
              "target": "smithy.api#String",
              "traits":
{
                 "smithy.api#documentation": "<p>A detailed message that's associated with your BYOL subscription
\n\t\t\tprovider token status.</p>"
              }
           },
           "LastSuccessfulDataRetrievalTime": {
              "target": "smithy.api#String",
              "traits": {
                 "smithy.api#documentation": "<p>The timestamp from the last time that License Manager accessed
third-party subscription data \n\t\t\tfor your account from your registered Linux subscription provider.</p>"
              }
           }
```

```
        },
        "traits": {
            "smithy.api#documentation": "<p>A third-party provider for operating system (OS) platform software and
license \n\t\t\tsubscriptions, such as Red Hat. When you register a third-party Linux subscription \n\t\t\tprovider,
License Manager can get subscription data from the registered provider.</p>"
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#RegisteredSubscriptionProviderList":
{
        "type": "list",
        "member": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#RegisteredSubscriptionProvider"
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ResourceNotFoundException": {
        "type": "structure",
        "members": {
            "message": {
                "target": "smithy.api#String"
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>Unable to find the requested Amazon Web Services resource.</p>",
            "smithy.api#error": "client"
        }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#SecretArn": {
        "type": "string",
        "traits": {
            "smithy.api#pattern": "^arn:[a-z0-9-\\.]{1,63}:secretsmanager:[a-z0-9-\\.]{0,63}:[a-z0-9-
\\.]{0,63}:secret:[^/]{1,1023}$"

  }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#Status": {
        "type": "string",
        "traits": {
            "smithy.api#enum": [
                {
                    "name": "InProgress",
                    "value": "InProgress",
                    "documentation": "InProgress status"
                },
                {
                    "name": "Completed",
                    "value": "Completed",
                    "documentation": "Completed status"
                },
```

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            {
              "name": "Successful",
              "value": "Successful",
              "documentation": "Successful status"
            },
            {
              "name": "Failed",
              "value": "Failed",
              "documentation": "Failed status"
            }
          ]
        }
      },

    "com.amazonaws.licensemanagerlinuxsubscriptions#StringList": {
        "type": "list",
        "member": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#length": {
              "min": 1,
              "max": 100
            }
          }
        },
        "traits": {
          "smithy.api#length": {
            "min": 1,
            "max": 100
          },
          "smithy.api#uniqueItems": {}
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#StringMap": {
        "type": "map",
        "key": {
          "target": "smithy.api#String"
        },
        "value": {
          "target": "smithy.api#String"
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#Subscription": {
        "type": "structure",
        "members": {
          "Name":
{
            "target": "smithy.api#String",
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```
            "traits": {
                "smithy.api#documentation": "<p>The name of the subscription.</p>"
            }
        },
        "Type": {
            "target": "smithy.api#String",
            "traits": {
                "smithy.api#documentation": "<p>The type of subscription. The type can be subscription-included with Amazon EC2, Bring Your Own\n      Subscription model (BYOS), or from the Amazon Web Services Marketplace. Certain subscriptions may use licensing from the\n      Amazon Web Services Marketplace as well as OS licensing from Amazon EC2 or BYOS.</p>"
            }
        },
        "InstanceCount": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#BoxLong",
            "traits": {
                "smithy.api#documentation": "<p>The total amount of running instances using this subscription.</p>"
            }
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>An object which details a discovered Linux subscription.</p>"
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Subscription"
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn": {
      "type": "string",
      "traits": {
        "smithy.api#pattern": "^arn:[a-z0-9-\\.]{1,63}:[a-z0-9-\\.]{1,63}:[a-z0-9-\\.]{1,63}:[a-z0-9-\\.]{1,63}:[a-z0-9-\\.]{1,510}/[a-z0-9-\\.]{1,510}$"
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderSource": {
      "type": "string",
      "traits": {
        "smithy.api#enum": [

 {
            "name": "RedHat",
            "value": "RedHat",
            "documentation": "RedHat subscription provider namespace"
          }
```

```
        ]
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderSourceList": {
      "type": "list",
      "member": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderSource"
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderStatus": {
      "type": "string",
      "traits": {
        "smithy.api#enum": [
          {
            "name": "ACTIVE",
            "value": "ACTIVE",
            "documentation": "ACTIVE status"
          },
          {
            "name": "INVALID",
            "value": "INVALID",

"documentation": "INVALID status"
          },
          {
            "name": "PENDING",
            "value": "PENDING",
            "documentation": "PENDING status"
          }
        ]
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#TagKeyList": {
      "type": "list",
      "member": {
        "target": "smithy.api#String"
      },
      "traits": {
        "smithy.api#length": {
          "min": 0,
          "max": 50
        },
        "smithy.api#sensitive": {}
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#TagResource": {
      "type": "operation",
      "input": {
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            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#TagResourceRequest"
          },
          "output": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#TagResourceResponse"
          },
          "errors": [
            {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
            },
            {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ResourceNotFoundException"
            },
            {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Add metadata tags to the specified Amazon Web Services
resource.</p>",
            "smithy.api#http": {
              "method": "PUT",
              "uri": "/tags/{resourceArn}"
            },
            "smithy.api#idempotent": {}
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#TagResourceRequest": {
          "type": "structure",
          "members":
{
            "resourceArn": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn",
              "traits": {
                "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the Amazon Web Services
resource to which to add the specified \n\t\t\tmetadata tags.</p>",
                "smithy.api#httpLabel": {},
                "smithy.api#required": {}
              }
            },
            "tags": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Tags",
              "traits": {
                "smithy.api#documentation": "<p>The metadata tags to assign to the Amazon Web Services resource.
Tags are \n\t\t\tformatted as key value pairs.</p>",
                "smithy.api#required": {}
              }
            }
          },
```

```
      "traits": {
        "smithy.api#input": {}
      }

    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#TagResourceResponse": {
      "type": "structure",
      "members": {},
      "traits": {
        "smithy.api#output": {}
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#Tags": {
      "type": "map",
      "key": {
        "target": "smithy.api#String"
      },
      "value": {
        "target": "smithy.api#String"
      },
      "traits": {
        "smithy.api#length": {
          "min": 0,
          "max": 50
        },
        "smithy.api#sensitive": {}
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException": {
      "type": "structure",
      "members": {
        "message": {
          "target": "smithy.api#String"
        }
      },
      "traits": {
        "smithy.api#documentation":
"<p>The request was denied due to request throttling.</p>",
        "smithy.api#error": "client"
      }
    },
    "com.amazonaws.licensemanagerlinuxsubscriptions#UntagResource": {
      "type": "operation",
      "input": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UntagResourceRequest"
      },
      "output": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UntagResourceResponse"
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        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
          },
          {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ResourceNotFoundException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Remove one or more metadata tag from the specified Amazon Web
Services resource.</p>",
           "smithy.api#http": {
            "method": "DELETE",
            "uri": "/tags/{resourceArn}"
          },
          "smithy.api#idempotent": {}
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#UntagResourceRequest": {
        "type": "structure",
        "members": {
          "resourceArn": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#SubscriptionProviderArn",
            "traits": {
              "smithy.api#documentation": "<p>The Amazon Resource Name (ARN) of the Amazon Web Services
resource to remove the metadata tags from.</p>",
              "smithy.api#httpLabel": {},
              "smithy.api#required": {}
            }
          },
          "tagKeys": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#TagKeyList",
            "traits": {

           "smithy.api#documentation": "<p>A list of metadata tag keys to remove from the requested
\n\t\t\tresource.</p>",
              "smithy.api#httpQuery": "tagKeys",
              "smithy.api#required": {}
            }
          }
        },
        "traits": {
          "smithy.api#input": {}
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#UntagResourceResponse": {
        "type": "structure",
```

```
    "members": {},
    "traits": {
        "smithy.api#output": {}
    }
},
"com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettings": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettingsRequest"
    },
    "output": {
        "target": "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettingsResponse"

 },
    "errors": [
        {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#InternalServerException"
        },
        {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ThrottlingException"
        },
        {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException"
        }
    ],
    "traits": {
        "smithy.api#documentation": "<p>Updates the service settings for Linux subscriptions.</p>",
        "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/subscription/UpdateServiceSettings"
        },
        "smithy.api#idempotent": {}
    }
},
"com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettingsRequest": {
    "type": "structure",
    "members": {
         "LinuxSubscriptionsDiscovery": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscovery",
            "traits": {
                "smithy.api#documentation": "<p>Describes if the discovery of Linux subscriptions is enabled.</p>",
                "smithy.api#required": {}
            }
        },
        "LinuxSubscriptionsDiscoverySettings": {
            "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscoverySettings",
            "traits": {
```

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                "smithy.api#documentation": "<p>The settings defined for Linux subscriptions discovery. The settings include if Organizations\n      integration has been enabled, and which Regions data will be aggregated from.</p>",
                "smithy.api#required": {}
              }
            },
            "AllowUpdate": {
              "target": "smithy.api#Boolean",
              "traits": {
                "smithy.api#documentation": "<p>Describes if updates are allowed to the service settings for Linux subscriptions. If you\n      allow updates, you can aggregate Linux subscription data in more than one home Region.</p>"
              }
            }
          }
        },
        "com.amazonaws.licensemanagerlinuxsubscriptions#UpdateServiceSettingsResponse": {
          "type": "structure",
          "members": {
            "LinuxSubscriptionsDiscovery": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscovery",
              "traits": {
                "smithy.api#documentation": "<p>Lists if discovery has been enabled for Linux subscriptions.</p>"
              }
            },
            "LinuxSubscriptionsDiscoverySettings": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#LinuxSubscriptionsDiscoverySettings",
              "traits": {
                "smithy.api#documentation": "<p>The settings defined for Linux subscriptions discovery. The settings include if Organizations\n      integration has been enabled, and which Regions data will be aggregated from.</p>"
              }
            },
            "Status": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#Status",
              "traits": {
                "smithy.api#documentation": "<p>Indicates the status of Linux subscriptions settings being applied.</p>"
              }
            },
            "StatusMessage": {
              "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringMap",
              "traits": {
                "smithy.api#documentation": "<p>A message which details the Linux subscriptions service settings current status.</p>"
              }
```

```
        },
            "HomeRegions": {
                "target": "com.amazonaws.licensemanagerlinuxsubscriptions#StringList",
                "traits": {
                    "smithy.api#documentation": "<p>The Region in which License Manager displays the aggregated
data for Linux\n      subscriptions.</p>"
                }
            }
        }
      },
      "com.amazonaws.licensemanagerlinuxsubscriptions#ValidationException": {
        "type": "structure",
        "members": {
          "message": {
            "target": "smithy.api#String"
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>The provided input is not valid. Try your request again.</p>",
          "smithy.api#error": "client"
        }
      }
    }
}
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Deletes the specified license.
func (c *Client) DeleteLicense(ctx context.Context, params *DeleteLicenseInput, optFns ...func(*Options))
(*DeleteLicenseOutput, error) {
 if params == nil {
  params = &DeleteLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "DeleteLicense", params, optFns,
c.addOperationDeleteLicenseMiddlewares)
 if err != nil {
  return nil, err
```

```
 }

 out := result.(*DeleteLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type DeleteLicenseInput struct {

 // Amazon Resource Name (ARN) of the license.
 //
 // This member is required.
 LicenseArn *string

 // Current version of the license.
 //
 // This member is required.
 SourceVersion
 *string

 noSmithyDocumentSerde
}

type DeleteLicenseOutput struct {

 // Date when the license is deleted.
 DeletionDate *string

 // License status.
 Status types.LicenseDeletionStatus

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationDeleteLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpDeleteLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpDeleteLicense{}, middleware.After)
 if err != nil {
  return err
```

```
}
if err := addProtocolFinalizerMiddlewares(stack, options, "DeleteLicense"); err != nil {
 return fmt.Errorf("add protocol finalizers: %v", err)
}

if err = addlegacyEndpointContextSetter(stack, options); err !=
nil {
 return err
}
if err = addSetLoggerMiddleware(stack, options); err != nil {
 return err
}
if err = addClientRequestID(stack); err != nil {
 return err
}
if err = addComputeContentLength(stack); err != nil {
 return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
 return err
}
if err = addComputePayloadSHA256(stack); err != nil {
 return err
}
if err = addRetry(stack, options); err != nil {
 return err
}
if err = addRawResponseToMetadata(stack); err != nil {
 return err
}
if err = addRecordResponseTiming(stack); err != nil {
 return err
}
if err = addClientUserAgent(stack, options); err != nil {
 return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
 return err
}
if err = addTimeOffsetBuild(stack, c); err != nil
{
 return err
```

```
 }
 if err = addUserAgentRetryMode(stack, options); err != nil {
  return err
 }
 if err = addOpDeleteLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opDeleteLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opDeleteLicense(region string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:    ServiceID,
  OperationName: "DeleteLicense",
 }
}
DeleteLicense
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
  OperationInputValidation
 Serialize stack step
  setOperationInput
  ResolveEndpoint
  OperationSerializer
 Build stack step
  ClientRequestID
```

ComputeContentLength
UserAgent
AddTimeOffsetMiddleware
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
AddTimeOffsetMiddleware
RecordResponseTiming
RequestResponseLogger
GetLicense
Initialize stack step
RegisterServiceMetadata
legacyEndpointContextSetter
SetLogger
OperationInputValidation
Serialize stack step
setOperationInput
ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
UserAgent
AddTimeOffsetMiddleware
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader

```
 setLegacyContextSigningOptions
 Signing
Deserialize stack step
 AddRawResponseToMetadata
 ErrorCloseResponseBody
 CloseResponseBody
 ResponseErrorWrapper
 RequestIDRetriever
 OperationDeserializer
 AddTimeOffsetMiddleware
 RecordResponseTiming
 RequestResponseLogger
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Checks out the specified license for offline use.
func (c *Client) CheckoutBorrowLicense(ctx context.Context, params *CheckoutBorrowLicenseInput, optFns
...func(*Options)) (*CheckoutBorrowLicenseOutput, error) {
 if params == nil {
  params = &CheckoutBorrowLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "CheckoutBorrowLicense", params, optFns,
c.addOperationCheckoutBorrowLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*CheckoutBorrowLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type CheckoutBorrowLicenseInput struct {

 // Unique, case-sensitive identifier that you provide to ensure the idempotency of
 //
```

```
 the request.
 //
 // This member is required.
 ClientToken *string

 // Digital signature method. The possible value is JSON Web Signature (JWS)
 // algorithm PS384. For more information, see [RFC 7518 Digital Signature with RSASSA-PSS].
 //
 // [RFC 7518 Digital Signature with RSASSA-PSS]: https://tools.ietf.org/html/rfc7518#section-3.5
 //
 // This member is required.
 DigitalSignatureMethod types.DigitalSignatureMethod

 // License entitlements. Partial checkouts are not supported.
 //
 // This member is required.
 Entitlements []types.EntitlementData

 // Amazon Resource Name (ARN) of the license. The license must use the borrow
 // consumption configuration.
 //
 // This member is required.
 LicenseArn *string

 // Information about constraints.
 CheckoutMetadata []types.Metadata

 // Node ID.
 NodeId *string

 noSmithyDocumentSerde
}

type CheckoutBorrowLicenseOutput struct {

 // Information about constraints.
 CheckoutMetadata []types.Metadata

 // Allowed license entitlements.
 EntitlementsAllowed
 []types.EntitlementData

 // Date and time at which the license checkout expires.
 Expiration *string

 // Date and time at which the license checkout is issued.
 IssuedAt *string
```

```
// Amazon Resource Name (ARN) of the license.
LicenseArn *string

// License consumption token.
LicenseConsumptionToken *string

// Node ID.
NodeId *string

// Signed token.
SignedToken *string

// Metadata pertaining to the operation's result.
ResultMetadata middleware.Metadata

noSmithyDocumentSerde
}

func (c *Client) addOperationCheckoutBorrowLicenseMiddlewares(stack *middleware.Stack, options Options) (err
error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpCheckoutBorrowLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpCheckoutBorrowLicense{}, middleware.After)
 if err != nil {
  return
 err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "CheckoutBorrowLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if err = addComputeContentLength(stack); err != nil {
  return err
 }
```

```
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
  return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
  return
 err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
  return err
 }
 if err = addUserAgentRetryMode(stack, options); err != nil {
  return err
 }
 if err = addOpCheckoutBorrowLicenseValidationMiddleware(stack); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opCheckoutBorrowLicense(options.Region),
middleware.Before); err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
```

```
 return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opCheckoutBorrowLicense(region
 string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:        region,
  ServiceID:     ServiceID,
  OperationName: "CheckoutBorrowLicense",
 }
}
```

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```
// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Checks in the specified license. Check in a license when it is no longer in use.
func (c *Client) CheckInLicense(ctx context.Context, params *CheckInLicenseInput, optFns ...func(*Options))
(*CheckInLicenseOutput, error) {
 if params == nil {
  params = &CheckInLicenseInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "CheckInLicense", params, optFns,
c.addOperationCheckInLicenseMiddlewares)
 if err != nil {
  return nil, err
 }

 out := result.(*CheckInLicenseOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type CheckInLicenseInput struct {

 // License consumption token.
 //
 // This member is required.
 LicenseConsumptionToken *string

 // License beneficiary.
 Beneficiary *string

 noSmithyDocumentSerde
}

type
 CheckInLicenseOutput struct {
 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata
```

```
 noSmithyDocumentSerde
}

func (c *Client) addOperationCheckInLicenseMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
 }
 err = stack.Serialize.Add(&awsAwsjson11_serializeOpCheckInLicense{}, middleware.After)
 if err != nil {
  return err
 }
 err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpCheckInLicense{}, middleware.After)
 if err != nil {
  return err
 }
 if err := addProtocolFinalizerMiddlewares(stack, options, "CheckInLicense"); err != nil {
  return fmt.Errorf("add protocol finalizers: %v", err)
 }

 if err = addlegacyEndpointContextSetter(stack, options); err != nil {
  return err
 }
 if err = addSetLoggerMiddleware(stack, options); err != nil {
  return err
 }
 if err = addClientRequestID(stack); err != nil {
  return err
 }
 if
 err = addComputeContentLength(stack); err != nil {
  return err
 }
 if err = addResolveEndpointMiddleware(stack, options); err != nil {
  return err
 }
 if err = addComputePayloadSHA256(stack); err != nil {
  return err
 }
 if err = addRetry(stack, options); err != nil {
  return err
 }
 if err = addRawResponseToMetadata(stack); err != nil {
  return err
 }
 if err = addRecordResponseTiming(stack); err != nil {
  return err
 }
 if err = addClientUserAgent(stack, options); err != nil {
```

```
 return err
 }
 if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return err
 }
 if err = smithyhttp.AddCloseResponseBodyMiddleware(stack); err != nil {
 return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
 return err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
 return err
 }
 if err = addUserAgentRetryMode(stack, options); err != nil {
 return err
 }
 if err = addOpCheckInLicenseValidationMiddleware(stack); err != nil
 {
 return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opCheckInLicense(options.Region),
middleware.Before); err != nil {
 return err
 }
 if err = addRecursionDetection(stack); err != nil {
 return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
 return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
 return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
 return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
 return err
 }
 return nil
}

func newServiceMetadataMiddleware_opCheckInLicense(region string) *awsmiddleware.RegisterServiceMetadata
{
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:    ServiceID,
```

OperationName: "CheckInLicense",
}
}

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```
    To apply the Apache License to your work, attach the following
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    the brackets!)  The text should be enclosed in the appropriate
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// Code generated by smithy-go-codegen DO NOT EDIT.

package licensemanager

import (
 "context"
 "fmt"
 awsmiddleware "github.com/aws/aws-sdk-go-v2/aws/middleware"
 "github.com/aws/aws-sdk-go-v2/service/licensemanager/types"
 "github.com/aws/smithy-go/middleware"
 smithyhttp "github.com/aws/smithy-go/transport/http"
)

// Lists the licenses for your account.
func (c *Client) ListLicenses(ctx context.Context, params *ListLicensesInput, optFns ...func(*Options))
(*ListLicensesOutput, error) {
 if params == nil {
  params = &ListLicensesInput{}
 }

 result, metadata, err := c.invokeOperation(ctx, "ListLicenses", params, optFns,
c.addOperationListLicensesMiddlewares)
 if err != nil {
  return nil, err
 }
```

```
 out := result.(*ListLicensesOutput)
 out.ResultMetadata = metadata
 return out, nil
}

type ListLicensesInput struct {

 // Filters to scope the results. The following filters are supported:
 //
 //   - Beneficiary
 //
 //   - ProductSKU
 //
 //   - Fingerprint
 //
 //   - Status
 Filters
 []types.Filter

 // Amazon Resource Names (ARNs) of the licenses.
 LicenseArns []string

 // Maximum number of results to return in a single call.
 MaxResults *int32

 // Token for the next set of results.
 NextToken *string

 noSmithyDocumentSerde
}

type ListLicensesOutput struct {

 // License details.
 Licenses []types.License

 // Token for the next set of results.
 NextToken *string

 // Metadata pertaining to the operation's result.
 ResultMetadata middleware.Metadata

 noSmithyDocumentSerde
}

func (c *Client) addOperationListLicensesMiddlewares(stack *middleware.Stack, options Options) (err error) {
 if err := stack.Serialize.Add(&setOperationInputMiddleware{}, middleware.After); err != nil {
  return err
```

```
}
err = stack.Serialize.Add(&awsAwsjson11_serializeOpListLicenses{}, middleware.After)
if err != nil {
 return err
}
err = stack.Deserialize.Add(&awsAwsjson11_deserializeOpListLicenses{}, middleware.After)
if err != nil {
 return err
}
if err := addProtocolFinalizerMiddlewares(stack,
options, "ListLicenses"); err != nil {
 return fmt.Errorf("add protocol finalizers: %v", err)
}

if err = addlegacyEndpointContextSetter(stack, options); err != nil {
 return err
}
if err = addSetLoggerMiddleware(stack, options); err != nil {
 return err
}
if err = addClientRequestID(stack); err != nil {
 return err
}
if err = addComputeContentLength(stack); err != nil {
 return err
}
if err = addResolveEndpointMiddleware(stack, options); err != nil {
 return err
}
if err = addComputePayloadSHA256(stack); err != nil {
 return err
}
if err = addRetry(stack, options); err != nil {
 return err
}
if err = addRawResponseToMetadata(stack); err != nil {
 return err
}
if err = addRecordResponseTiming(stack); err != nil {
 return err
}
if err = addClientUserAgent(stack, options); err != nil {
 return err
}
if err = smithyhttp.AddErrorCloseResponseBodyMiddleware(stack); err != nil {
 return err
}
if err = smithyhttp.AddCloseResponseBodyMiddleware(stack);
```

```
 err != nil {
  return err
 }
 if err = addSetLegacyContextSigningOptionsMiddleware(stack); err != nil {
  return err
 }
 if err = addTimeOffsetBuild(stack, c); err != nil {
  return err
 }
 if err = addUserAgentRetryMode(stack, options); err != nil {
  return err
 }
 if err = stack.Initialize.Add(newServiceMetadataMiddleware_opListLicenses(options.Region), middleware.Before);
err != nil {
  return err
 }
 if err = addRecursionDetection(stack); err != nil {
  return err
 }
 if err = addRequestIDRetrieverMiddleware(stack); err != nil {
  return err
 }
 if err = addResponseErrorMiddleware(stack); err != nil {
  return err
 }
 if err = addRequestResponseLogging(stack, options); err != nil {
  return err
 }
 if err = addDisableHTTPSMiddleware(stack, options); err != nil {
  return err
 }
 return nil
}

func newServiceMetadataMiddleware_opListLicenses(region string) *awsmiddleware.RegisterServiceMetadata {
 return &awsmiddleware.RegisterServiceMetadata{
  Region:       region,
  ServiceID:
     ServiceID,
  OperationName: "ListLicenses",
 }
}
CheckInLicense
 Initialize stack step
  RegisterServiceMetadata
  legacyEndpointContextSetter
  SetLogger
  OperationInputValidation
```

Serialize stack step
setOperationInput
ResolveEndpoint
OperationSerializer
Build stack step
ClientRequestID
ComputeContentLength
UserAgent
AddTimeOffsetMiddleware
RecursionDetection
Finalize stack step
ResolveAuthScheme
GetIdentity
ResolveEndpointV2
disableHTTPS
ComputePayloadHash
Retry
RetryMetricsHeader
setLegacyContextSigningOptions
Signing
Deserialize stack step
AddRawResponseToMetadata
ErrorCloseResponseBody
CloseResponseBody
ResponseErrorWrapper
RequestIDRetriever
OperationDeserializer
AddTimeOffsetMiddleware
RecordResponseTiming
RequestResponseLogger


```
{
  "smithy": "2.0",
  "shapes": {
    "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException": {
      "type": "structure",
      "members": {
        "message": {
          "target": "smithy.api#String"
        }
      },
      "traits": {
        "smithy.api#documentation": "<p>You don't have sufficient access to perform this action.</p>",
        "smithy.api#error": "client"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ActiveDirectoryIdentityProvider": {
      "type": "structure",
      "members": {
```

```
            "DirectoryId": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The directory ID for an Active Directory identity provider.</p>"
               }
            }
         },
         "traits": {
            "smithy.api#documentation":
"<p>Details about an Active Directory identity provider.</p>"
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#AssociateUser": {
         "type": "operation",
         "input": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AssociateUserRequest"
         },
         "output": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AssociateUserResponse"
         },
         "errors": [
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
             },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
         ],
         "traits": {
            "smithy.api#documentation": "<p>Associates the user to an EC2 instance to utilize user-based
subscriptions.</p>\n         <note>\n            <p>Your estimated bill for charges on the number of users and related
costs will take 48\n         hours to appear for billing periods that haven't closed (marked as <b>Pending</b> billing
status) in Amazon Web Services Billing. For more information, see <a
```

```
href=\"https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/invoice.html\">Viewing your\n
        monthly charges</a> in the <i>Amazon Web Services Billing User Guide</i>.</p>\n        </note>",
            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/user/AssociateUser"
            },
            "smithy.api#idempotent": {}
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#AssociateUserRequest": {
        "type": "structure",
        "members": {
            "Username": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The user name from the identity provider for the user.</p>",
                    "smithy.api#required": {}
                }
            },
            "InstanceId": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The ID of the
EC2 instance, which provides user-based subscriptions.</p>",
                    "smithy.api#required": {}
                }
            },
            "IdentityProvider": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
                "traits": {
                    "smithy.api#documentation": "<p>The identity provider of the user.</p>",
                    "smithy.api#required": {}
                }
            },
            "Domain": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The domain name of the user.</p>"
                }
            }
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#AssociateUserResponse": {
        "type": "structure",
        "members": {
            "InstanceUserSummary": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummary",
```

```
                "traits": {
                  "smithy.api#documentation": "<p>Metadata that describes the associate user operation.</p>",
                  "smithy.api#required": {}
                }
              }
            }
        },
        "com.amazonaws.licensemanagerusersubscriptions#BoxInteger": {
            "type": "integer"
        },
        "com.amazonaws.licensemanagerusersubscriptions#ConflictException": {
            "type": "structure",
            "members": {
                "message": {
                    "target": "smithy.api#String"
                }
            },
            "traits": {
                "smithy.api#documentation": "<p>The request couldn't be completed because it conflicted with the current state of the\n      resource.</p>",
                "smithy.api#error": "server"
            }
        },
        "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProvider":
 {
            "type": "operation",
            "input": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProviderRequest"
            },
            "output": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProviderResponse"
            },
            "errors": [
                {
                    "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
                },
                {
                    "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
                },
                {
                    "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
                },
                {
                    "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
                },
                {
                    "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
```

```
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Deregisters the identity provider from providing user-based
subscriptions.</p>",
            "smithy.api#http": {
              "code": 200,
              "method": "POST",
              "uri": "/identity-provider/DeregisterIdentityProvider"
            },
            "smithy.api#idempotent": {}
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProviderRequest": {
          "type": "structure",
          "members": {
            "IdentityProvider": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
              "traits": {
                "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
                "smithy.api#required": {}
              }
            },
            "Product": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
                "smithy.api#required": {}
              }
            }
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProviderResponse": {
          "type": "structure",
          "members": {
            "IdentityProviderSummary": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary",
              "traits": {
                "smithy.api#documentation":
 "<p>Metadata that describes the results of an identity provider operation.</p>",
                "smithy.api#required": {}
              }
```

```
            }
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#DisassociateUser": {
          "type": "operation",
          "input": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#DisassociateUserRequest"
          },
          "output": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#DisassociateUserResponse"
          },
          "errors": [
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
             },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Disassociates the user from an EC2 instance providing user-based
subscriptions.</p>",
            "smithy.api#http": {
              "code": 200,
              "method": "POST",
              "uri": "/user/DisassociateUser"
            },
            "smithy.api#idempotent": {}
          }

 },
        "com.amazonaws.licensemanagerusersubscriptions#DisassociateUserRequest": {
          "type": "structure",
```

```
        "members": {
          "Username": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The user name from the identity provider for the user.</p>",
              "smithy.api#required": {}
            }
          },
          "InstanceId": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The ID of the EC2 instance, which provides user-based
subscriptions.</p>",
              "smithy.api#required": {}
            }
          },
          "IdentityProvider": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
            "traits": {
              "smithy.api#documentation":
 "<p>An object that specifies details for the identity provider.</p>",
              "smithy.api#required": {}
            }
          },
          "Domain": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The domain name of the user.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#DisassociateUserResponse": {
        "type": "structure",
        "members": {
          "InstanceUserSummary": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummary",
            "traits": {
              "smithy.api#documentation": "<p>Metadata that describes the associate user operation.</p>",
              "smithy.api#required": {}
            }
          }
        }
      },

 "com.amazonaws.licensemanagerusersubscriptions#Filter": {
        "type": "structure",
        "members": {
```

```
            "Attribute": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The name of an attribute to use as a filter.</p>"
              }
            },
            "Operation": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The type of search (For example, eq, geq, leq)</p>"
              }
            },
            "Value": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>Value of the filter.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#documentation": "<p>A filter name and value pair that is used
 to return more specific results from a describe\n      operation. Filters can be used to match a set of resources by
specific criteria, such as tags,\n      attributes, or IDs.</p>"
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#FilterList": {
          "type": "list",
          "member": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#Filter"
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider": {
          "type": "union",
          "members": {
            "ActiveDirectoryIdentityProvider": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ActiveDirectoryIdentityProvider",
              "traits": {
                "smithy.api#documentation": "<p>An object that details an Active Directory identity provider.</p>"
              }
            }
          },
          "traits": {
            "smithy.api#documentation":
 "<p>Details about an identity provider.</p>"
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary": {
          "type": "structure",
```

```
        "members": {
          "IdentityProvider": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
            "traits": {
              "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
              "smithy.api#required": {}
            }
          },
          "Settings": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#Settings",
            "traits": {
              "smithy.api#documentation": "<p>An object that details the registered identity providers product related configuration\n      settings such as the subnets to provision VPC endpoints.</p>",
              "smithy.api#required": {}
            }
          },
          "Product": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
              "smithy.api#required": {}
            }
          },
          "Status": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The status of an identity provider.</p>",
              "smithy.api#required": {}
            }
          },
          "FailureMessage": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The failure message associated with an identity provider.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>Describes an identity provider.</p>"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummaryList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary"
        }
```

```
    },
    "com.amazonaws.licensemanagerusersubscriptions#InstanceSummary": {
      "type": "structure",
      "members": {
        "InstanceId": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The ID of the EC2 instance, which provides user-based
subscriptions.</p>",
            "smithy.api#required": {}
          }
        },
        "Status": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The status
 of an EC2 instance resource.</p>",
            "smithy.api#required": {}
          }
        },
        "Products": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#StringList",
          "traits": {
            "smithy.api#documentation": "<p>A list of provided user-based subscription products.</p>",
            "smithy.api#required": {}
          }
        },
        "LastStatusCheckDate": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The date of the last status check.</p>"
          }
        },
        "StatusMessage": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>The status message for an EC2 instance.</p>"
          }

    }
      },
      "traits": {
        "smithy.api#documentation": "<p>Describes an EC2 instance providing user-based subscriptions.</p>"
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#InstanceSummaryList": {
      "type": "list",
      "member": {
```

```
            "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceSummary"
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummary": {
          "type": "structure",
          "members": {
            "Username": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The user name from the identity provider for the user.</p>",
                "smithy.api#required": {}
              }
            },
            "InstanceId": {
              "target": "smithy.api#String",
              "traits":
{
                "smithy.api#documentation": "<p>The ID of the EC2 instance, which provides user-based
subscriptions.</p>",
                "smithy.api#required": {}
              }
            },
            "IdentityProvider": {
              "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
              "traits": {
                "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
                "smithy.api#required": {}
              }
            },
            "Status": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The status of a user associated with an EC2 instance.</p>",
                "smithy.api#required": {}
              }
            },
            "StatusMessage": {
              "target": "smithy.api#String",
               "traits": {
                "smithy.api#documentation": "<p>The status message for users of an EC2 instance.</p>"
              }
            },
            "Domain": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The domain name of the user.</p>"
              }
            },
```

```
            "AssociationDate": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The date a user was associated with an EC2 instance.</p>"
               }
            },
            "DisassociationDate": {
               "target": "smithy.api#String",
               "traits": {
                  "smithy.api#documentation": "<p>The date a user was disassociated from an EC2 instance.</p>"
               }
            }

   },
         "traits": {
            "smithy.api#documentation": "<p>Describes users of an EC2 instance providing user-based
subscriptions.</p>"
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummaryList": {
         "type": "list",
         "member": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummary"
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#InternalServerException": {
         "type": "structure",
         "members": {
            "message": {
               "target": "smithy.api#String"
            }
         },
         "traits": {
            "smithy.api#documentation": "<p>An exception occurred with the service.</p>",
            "smithy.api#error": "server"
         }
      },
      "com.amazonaws.licensemanagerusersubscriptions#LicenseManagerUserSubscriptions": {
         "type": "service",

       "version": "2018-05-10",
         "operations": [
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#AssociateUser"
            },
            {
               "target": "com.amazonaws.licensemanagerusersubscriptions#DeregisterIdentityProvider"
            },
```

```
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#DisassociateUser"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProviders"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListInstances"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptions"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociations"

},
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProvider"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscription"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscription"
        },
        {
          "target": "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettings"
        }
      ],
      "traits": {
        "aws.api#service": {
          "sdkId": "License Manager User Subscriptions",
          "arnNamespace": "license-manager-user-subscriptions",
          "cloudTrailEventSource": "license-manager-user-subscriptions.amazonaws.com"
        },
        "aws.auth#sigv4": {
          "name": "license-manager-user-subscriptions"
         },
        "aws.protocols#restJson1": {},
        "smithy.api#cors": {
          "additionalAllowedHeaders": [
            "*",
            "content-type",
            "x-amz-content-sha256",
            "x-amz-user-agent",
            "x-amzn-platform-id",
            "x-amzn-trace-id",
            "content-length",
```

```
                "x-api-key",
                "authorization",
                "x-amz-date",
                "x-amz-security-token",
                "Access-Control-Allow-Headers",
                "Access-Control-Allow-Methods",
                "Access-Control-Allow-Origin"
            ],
            "additionalExposedHeaders": [
                "x-amzn-errortype",
                "x-amzn-requestid",
                "x-amzn-trace-id"

]
        },
        "smithy.api#documentation": "<p>With License Manager, you can create user-based subscriptions to utilize licensed software with\n      a per user subscription fee on Amazon EC2 instances.</p>",
        "smithy.api#title": "AWS License Manager User Subscriptions",
        "smithy.rules#endpointRuleSet": {
            "version": "1.0",
            "parameters": {
                "Region": {
                    "builtIn": "AWS::Region",
                    "required": false,
                    "documentation": "The AWS region used to dispatch the request.",
                    "type": "String"
                },
                "UseDualStack": {
                    "builtIn": "AWS::UseDualStack",
                    "required": true,
                    "default": false,
                    "documentation": "When true, use the dual-stack
 endpoint. If the configured endpoint does not support dual-stack, dispatching the request MAY return an error.",
                    "type": "Boolean"
                },
                "UseFIPS": {
                    "builtIn": "AWS::UseFIPS",
                    "required": true,
                    "default": false,
                    "documentation": "When true, send this request to the FIPS-compliant regional endpoint. If the configured endpoint does not have a FIPS compliant endpoint, dispatching the request will return an error.",
                    "type": "Boolean"
                },
                "Endpoint": {
                    "builtIn": "SDK::Endpoint",
                    "required": false,
                    "documentation": "Override the endpoint used to send this request",
                    "type": "String"
```

```
            }

    },
        "rules": [
            {
                "conditions": [
                    {
                        "fn": "isSet",
                        "argv": [
                            {
                                "ref": "Endpoint"
                            }
                        ]
                    }
                ],
                "type": "tree",
                "rules": [
                    {
                        "conditions": [
                            {
                                "fn": "booleanEquals",
                                "argv": [
                                    {
                                        "ref": "UseFIPS"
                                    },

                                    true
                                    ]
                            }
                        ],
                        "error": "Invalid Configuration: FIPS and custom endpoint are not supported",
                        "type": "error"
                    },
                    {
                        "conditions": [
                            {
                                "fn": "booleanEquals",
                                "argv": [
                                    {
                                        "ref": "UseDualStack"
                                    },
                                    true
                                ]
                            }
                        ],

        "error": "Invalid Configuration: Dualstack and custom endpoint are not supported",
                        "type": "error"
```

```
            },
            {
              "conditions": [],
              "endpoint": {
                "url": {
                  "ref": "Endpoint"
                },
                "properties": {},
                "headers": {}
              },
              "type": "endpoint"
            }
          ]
        },
        {
          "conditions": [
            {
              "fn": "isSet",
              "argv": [

    {
                  "ref": "Region"
                }
              ]
            }
          ],
          "type": "tree",
          "rules": [
            {
              "conditions": [
                {
                  "fn": "aws.partition",
                  "argv": [
                    {
                      "ref": "Region"
                    }
                  ],
                  "assign": "PartitionResult"
                }
              ],
              "type": "tree",

"rules": [
                {
                  "conditions": [
                    {
                      "fn": "booleanEquals",
                      "argv": [
```

```
                {
                  "ref": "UseFIPS"
                },
                true
              ]
            },
            {
              "fn": "booleanEquals",
              "argv": [
                {
                  "ref": "UseDualStack"

                },
                true
              ]
            }
          ],
          "type": "tree",
          "rules": [
            {
              "conditions": [
                {
                  "fn": "booleanEquals",
                  "argv": [
                    true,
                    {
                      "fn": "getAttr",

"argv": [
                        {
                          "ref": "PartitionResult"
                        },
                        "supportsFIPS"
                      ]
                    }
                  ]
                },
                {
                  "fn": "booleanEquals",
                  "argv": [
                    true,
                    {

        "fn": "getAttr",
                        "argv": [
                          {
                            "ref": "PartitionResult"
                          },
```

```
                                    "supportsDualStack"
                                ]
                            }
                        ]
                    }
                ],
                "type": "tree",
                "rules": [
                    {

            "conditions": [],
                        "endpoint": {
                            "url": "https://license-manager-user-subscriptions-
fips.{Region}.{PartitionResult#dualStackDnsSuffix}",
                            "properties": {},
                            "headers": {}
                        },
                        "type": "endpoint"
                    }
                ]
            },
            {
                "conditions": [],
                "error": "FIPS and DualStack are enabled, but this partition does not support one or
both",
                 "type": "error"
            }
        ]
    },
    {
        "conditions": [
            {
                "fn": "booleanEquals",
                "argv": [
                    {
                        "ref": "UseFIPS"
                    },
                    true
                ]
            }
        ],
        "type": "tree",

      "rules": [
            {
                "conditions": [
                    {
                        "fn": "booleanEquals",
```

```
                "argv": [
                  true,
                  {
                    "fn": "getAttr",
                    "argv": [
                      {
                        "ref": "PartitionResult"
                      },
                      "supportsFIPS"

                ]
                    }
                ]
              }
            ],
            "type": "tree",
            "rules": [
              {
                "conditions": [],
                "endpoint": {
                  "url": "https://license-manager-user-subscriptions-
fips.{Region}.{PartitionResult#dnsSuffix}",
                  "properties": {},
                  "headers": {}

        },
                "type": "endpoint"
              }
            ]
          },
          {
            "conditions": [],
            "error": "FIPS is enabled but this partition does not support FIPS",
            "type": "error"
          }
        ]
      },
      {
        "conditions": [
          {
            "fn": "booleanEquals",
            "argv": [
              {
                "ref": "UseDualStack"
              },
              true
            ]
          }
```

```
                ],
                "type": "tree",
                "rules": [
                    {
                        "conditions": [
                            {
                                "fn": "booleanEquals",
                                "argv": [
                                    true,
                                    {

                                     "fn": "getAttr",
                                        "argv": [
                                            {
                                                "ref": "PartitionResult"
                                            },
                                            "supportsDualStack"
                                        ]
                                    }
                                ]
                            }
                        ],
                        "type": "tree",
                        "rules": [
                            {

                               "conditions": [],
                                "endpoint": {
                                    "url": "https://license-manager-user-
subscriptions.{Region}.{PartitionResult#dualStackDnsSuffix}",
                                    "properties": {},
                                    "headers": {}
                                },
                                "type": "endpoint"
                            }
                        ]
                    },
                    {
                        "conditions": [],
                        "error": "DualStack is enabled but this partition does
not support DualStack",
                        "type": "error"
                    }
                ]
            },
            {
                "conditions": [],
                "endpoint": {
```

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                                "url": "https://license-manager-user-
subscriptions.{Region}.{PartitionResult#dnsSuffix}",
                                "properties": {},
                                "headers": {}
                            },
                            "type": "endpoint"
                        }
                    ]
                }
            ]
        },
        {
            "conditions":
[],
            "error": "Invalid Configuration: Missing Region",
            "type": "error"
        }
    ]
},
"smithy.rules#endpointTests": {
    "testCases": [
        {
            "documentation": "For region us-east-1 with FIPS enabled and DualStack enabled",
            "expect": {
                "endpoint": {
                    "url": "https://license-manager-user-subscriptions-fips.us-east-1.api.aws"
                }
            },
            "params": {
                "Region": "us-east-1",
                "UseFIPS": true,
                "UseDualStack": true
            }
        },
        {
            "documentation":
"For region us-east-1 with FIPS enabled and DualStack disabled",
            "expect": {
                "endpoint": {
                    "url": "https://license-manager-user-subscriptions-fips.us-east-1.amazonaws.com"
                }
            },
            "params": {
                "Region": "us-east-1",
                "UseFIPS": true,
                "UseDualStack": false
            }
        },
```

```
    {
      "documentation": "For region us-east-1 with FIPS disabled and DualStack enabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-user-subscriptions.us-east-1.api.aws"
        }
      },

    "params": {
        "Region": "us-east-1",
        "UseFIPS": false,
        "UseDualStack": true
      }
    },
    {
      "documentation": "For region us-east-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-user-subscriptions.us-east-1.amazonaws.com"
        }
      },
      "params": {
        "Region": "us-east-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region cn-north-1 with
 FIPS enabled and DualStack enabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-user-subscriptions-fips.cn-north-
1.api.amazonwebservices.com.cn"
        }
      },
      "params": {
        "Region": "cn-north-1",
        "UseFIPS": true,
        "UseDualStack": true
      }
    },
    {
      "documentation": "For region cn-north-1 with FIPS enabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-user-subscriptions-fips.cn-north-1.amazonaws.com.cn"
        }
```

```
        },

    "params": {
            "Region": "cn-north-1",
            "UseFIPS": true,
            "UseDualStack": false
        }
      },
      {
        "documentation": "For region cn-north-1 with FIPS disabled and DualStack enabled",
        "expect": {
          "endpoint": {
            "url": "https://license-manager-user-subscriptions.cn-north-1.api.amazonwebservices.com.cn"
          }
        },
        "params": {
          "Region": "cn-north-1",
          "UseFIPS": false,
          "UseDualStack": true
        }
      },
      {
        "documentation": "For region cn-north-1
with FIPS disabled and DualStack disabled",
        "expect": {
          "endpoint": {
            "url": "https://license-manager-user-subscriptions.cn-north-1.amazonaws.com.cn"
          }
        },
        "params": {
          "Region": "cn-north-1",
          "UseFIPS": false,
          "UseDualStack": false
        }
      },
      {
        "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack enabled",
        "expect": {
          "endpoint": {
            "url": "https://license-manager-user-subscriptions-fips.us-gov-east-1.api.aws"
          }
        },

    "params": {
            "Region": "us-gov-east-1",
            "UseFIPS": true,
            "UseDualStack": true
        }
```

```
    },
    {
      "documentation": "For region us-gov-east-1 with FIPS enabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-user-subscriptions-fips.us-gov-east-1.amazonaws.com"
        }
      },
      "params": {
        "Region": "us-gov-east-1",
        "UseFIPS": true,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region us-gov-east-1
with FIPS disabled and DualStack enabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-user-subscriptions.us-gov-east-1.api.aws"
        }
      },
      "params": {
        "Region": "us-gov-east-1",
        "UseFIPS": false,
        "UseDualStack": true
      }
    },
    {
      "documentation": "For region us-gov-east-1 with FIPS disabled and DualStack disabled",
      "expect": {
        "endpoint": {
          "url": "https://license-manager-user-subscriptions.us-gov-east-1.amazonaws.com"
        }
      },

  "params": {
        "Region": "us-gov-east-1",
        "UseFIPS": false,
        "UseDualStack": false
      }
    },
    {
      "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack enabled",
      "expect": {
        "error": "FIPS and DualStack are enabled, but this partition does not support one or both"
      },
      "params": {
```

```
            "Region": "us-iso-east-1",
            "UseFIPS": true,
            "UseDualStack": true
          }
        },
        {
          "documentation": "For region us-iso-east-1 with FIPS enabled and DualStack disabled",
          "expect":
{
            "endpoint": {
              "url": "https://license-manager-user-subscriptions-fips.us-iso-east-1.c2s.ic.gov"
            }
          },
          "params": {
            "Region": "us-iso-east-1",
            "UseFIPS": true,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack enabled",
          "expect": {
            "error": "DualStack is enabled but this partition does not support DualStack"
          },
          "params": {
            "Region": "us-iso-east-1",
            "UseFIPS": false,
            "UseDualStack":
true
          }
        },
        {
          "documentation": "For region us-iso-east-1 with FIPS disabled and DualStack disabled",
          "expect": {
            "endpoint": {
              "url": "https://license-manager-user-subscriptions.us-iso-east-1.c2s.ic.gov"
            }
          },
          "params": {
            "Region": "us-iso-east-1",
            "UseFIPS": false,
            "UseDualStack": false
          }
        },
        {
          "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack enabled",
          "expect": {
            "error": "FIPS and DualStack are enabled, but
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this partition does not support one or both"
                },
                "params": {
                  "Region": "us-isob-east-1",
                  "UseFIPS": true,
                  "UseDualStack": true
                }
              },
              {
                "documentation": "For region us-isob-east-1 with FIPS enabled and DualStack disabled",
                "expect": {
                  "endpoint": {
                    "url": "https://license-manager-user-subscriptions-fips.us-isob-east-1.sc2s.sgov.gov"
                  }
                },
                "params": {
                  "Region": "us-isob-east-1",
                  "UseFIPS": true,
                  "UseDualStack": false
                }

    },
              {
                "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack enabled",
                "expect": {
                  "error": "DualStack is enabled but this partition does not support DualStack"
                },
                "params": {
                  "Region": "us-isob-east-1",
                  "UseFIPS": false,
                  "UseDualStack": true
                }
              },
              {
                "documentation": "For region us-isob-east-1 with FIPS disabled and DualStack disabled",
                "expect": {
                  "endpoint": {
                    "url": "https://license-manager-user-subscriptions.us-isob-east-1.sc2s.sgov.gov"
                  }
                },
                 "params": {
                  "Region": "us-isob-east-1",
                  "UseFIPS": false,
                  "UseDualStack": false
                }
              },
              {
                "documentation": "For custom endpoint with region set and fips disabled and dualstack disabled",
```

```
      "expect": {
        "endpoint": {
          "url": "https://example.com"
        }
      },
      "params": {
        "Region": "us-east-1",
        "UseFIPS": false,
        "UseDualStack": false,
        "Endpoint": "https://example.com"
      }
    },
    {

"documentation": "For custom endpoint with region not set and fips disabled and dualstack disabled",
      "expect": {
        "endpoint": {
          "url": "https://example.com"
        }
      },
      "params": {
        "UseFIPS": false,
        "UseDualStack": false,
        "Endpoint": "https://example.com"
      }
    },
    {
      "documentation": "For custom endpoint with fips enabled and dualstack disabled",
      "expect": {
        "error": "Invalid Configuration: FIPS and custom endpoint are not supported"
      },
      "params": {
        "Region": "us-east-1",
         "UseFIPS": true,
        "UseDualStack": false,
        "Endpoint": "https://example.com"
      }
    },
    {
      "documentation": "For custom endpoint with fips disabled and dualstack enabled",
      "expect": {
        "error": "Invalid Configuration: Dualstack and custom endpoint are not supported"
      },
      "params": {
        "Region": "us-east-1",
        "UseFIPS": false,
        "UseDualStack": true,
        "Endpoint": "https://example.com"
```

```
                }
            },
            {
                "documentation": "Missing region",
                "expect": {
                    "error": "Invalid Configuration: Missing Region"
                }
            }
        ],
        "version": "1.0"
    }
  }
},
"com.amazonaws.licensemanagerusersubscriptions#ListIdentityProviders": {
  "type": "operation",
  "input": {
    "target": "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProvidersRequest"
  },
  "output": {
    "target": "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProvidersResponse"
  },
  "errors": [
    {
      "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
    },
    {
      "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
    },
    {
      "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
     },
    {
      "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
    },
    {
      "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
    },
    {
      "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
    },
    {
      "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
    }
  ],
  "traits": {
    "smithy.api#documentation": "<p>Lists the identity providers for user-based subscriptions.</p>",
    "smithy.api#http": {
      "code": 200,
```

```
            "method": "POST",
            "uri": "/identity-provider/ListIdentityProviders"
          },
          "smithy.api#paginated":
{
            "inputToken": "NextToken",
            "outputToken": "NextToken",
            "pageSize": "MaxResults",
            "items": "IdentityProviderSummaries"
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProvidersRequest": {
        "type": "structure",
        "members": {
          "MaxResults": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#BoxInteger",
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListIdentityProvidersResponse":
{
        "type": "structure",
        "members": {
          "IdentityProviderSummaries": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummaryList",
            "traits": {
              "smithy.api#documentation": "<p>Metadata that describes the list identity providers operation.</p>",
              "smithy.api#required": {}
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        }
      },
```

```
"com.amazonaws.licensemanagerusersubscriptions#ListInstances": {
    "type": "operation",
    "input": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#ListInstancesRequest"
    },
    "output": {
        "target": "com.amazonaws.licensemanagerusersubscriptions#ListInstancesResponse"
    },
    "errors": [
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
        },
        {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
        }
    ],
    "traits": {
        "smithy.api#documentation": "<p>Lists the EC2 instances providing user-based subscriptions.</p>",
        "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/instance/ListInstances"
        },
        "smithy.api#paginated": {
            "inputToken": "NextToken",
            "outputToken": "NextToken",
            "pageSize": "MaxResults",
            "items": "InstanceSummaries"
        }
    }
},
"com.amazonaws.licensemanagerusersubscriptions#ListInstancesRequest": {
    "type": "structure",
```

```
        "members": {
          "MaxResults": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#BoxInteger",
             "traits": {
               "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
             }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          },
          "Filters": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#FilterList",
            "traits": {
              "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those
that match one or\n      more sets of key-value pairs that you specify.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListInstancesResponse": {
        "type":
 "structure",
        "members": {
          "InstanceSummaries": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceSummaryList",
            "traits": {
              "smithy.api#documentation": "<p>Metadata that describes the list instances operation.</p>"
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for the next set of results.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptions": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptionsRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptionsResponse"
```

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        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Lists the user-based subscription products available from an identity provider.</p>",
          "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/user/ListProductSubscriptions"
          },
          "smithy.api#paginated": {
            "inputToken": "NextToken",
            "outputToken": "NextToken",
            "pageSize": "MaxResults",
            "items": "ProductUserSummaries"
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptionsRequest": {
        "type": "structure",
        "members": {
          "Product": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The name
```

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of the user-based subscription product.</p>",
                    "smithy.api#required": {}
                }
            },
            "IdentityProvider": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
                "traits": {
                    "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
                    "smithy.api#required": {}
                }
            },
            "MaxResults": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#BoxInteger",
                "traits": {
                    "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
                }
            },
            "Filters": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#FilterList",
                "traits": {

  "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those that match
one or\n      more sets of key-value pairs that you specify.</p>"
                }
            },
            "NextToken": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>Token for the next set of results.</p>"
                }
            }
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ListProductSubscriptionsResponse": {
        "type": "structure",
        "members": {
            "ProductUserSummaries": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummaryList",
                "traits": {
                    "smithy.api#documentation": "<p>Metadata that describes the list product subscriptions
operation.</p>"
                }
            },

     "NextToken": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>Token for the next set of results.</p>"
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            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociations": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociationsRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociationsResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
          },
          {
            "target":
"com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Lists user associations for an identity provider.</p>",
          "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/user/ListUserAssociations"
          },
          "smithy.api#paginated":
{
            "inputToken": "NextToken",
            "outputToken": "NextToken",
            "pageSize": "MaxResults",
```

```
            "items": "InstanceUserSummaries"
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociationsRequest": {
        "type": "structure",
        "members": {
          "InstanceId": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The ID of the EC2 instance, which provides user-based
subscriptions.</p>",
              "smithy.api#required": {}
            }
          },
          "IdentityProvider": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
            "traits": {
              "smithy.api#documentation": "<p>An object that specifies details for the identity
 provider.</p>",
              "smithy.api#required": {}
            }
          },
          "MaxResults": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#BoxInteger",
            "traits": {
              "smithy.api#documentation": "<p>Maximum number of results to return in a single call.</p>"
            }
          },
          "Filters": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#FilterList",
            "traits": {
              "smithy.api#documentation": "<p>An array of structures that you can use to filter the results to those
that match one or\n      more sets of key-value pairs that you specify.</p>"
            }
          },
          "NextToken": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>Token for
 the next set of results.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ListUserAssociationsResponse": {
        "type": "structure",
        "members": {
```

```
        "InstanceUserSummaries": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#InstanceUserSummaryList",
          "traits": {
            "smithy.api#documentation": "<p>Metadata that describes the list user association operation.</p>"
          }
        },
        "NextToken": {
          "target": "smithy.api#String",
          "traits": {
            "smithy.api#documentation": "<p>Token for the next set of results.</p>"
          }
        }
      }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummary": {
      "type": "structure",
      "members": {

      "Username": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The user name from the identity provider of the user.</p>",
              "smithy.api#required": {}
            }
          },
          "Product": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
              "smithy.api#required": {}
            }
          },
          "IdentityProvider": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
            "traits": {
              "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
              "smithy.api#required": {}
            }

    },
          "Status": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The status of a product for a user.</p>",
              "smithy.api#required": {}
            }
          },
          "StatusMessage": {
```

```
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The status message for a product for a user.</p>"
            }
          },
          "Domain": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The domain name of the user.</p>"
            }
          },
          "SubscriptionStartDate": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The
start date of a subscription.</p>"
            }
          },
          "SubscriptionEndDate": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The end date of a subscription.</p>"
            }
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>The summary of the user-based subscription products for a user.</p>"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummaryList": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummary"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProvider": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProviderRequest"
         },
        "output": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProviderResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
          },
          {
```

```
                "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
                "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
        ],
        "traits": {
            "smithy.api#documentation": "<p>Registers an identity provider for user-based subscriptions.</p>",
            "smithy.api#http": {
                "code": 200,
                "method": "POST",
                "uri": "/identity-provider/RegisterIdentityProvider"
            },
            "smithy.api#idempotent": {}
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProviderRequest": {
        "type": "structure",
        "members": {
            "IdentityProvider": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
                "traits": {
                    "smithy.api#documentation": "<p>An object that specifies details for the identity
provider.</p>",
                    "smithy.api#required": {}
                }
            },
            "Product": {
                "target": "smithy.api#String",
                "traits": {
                    "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
                    "smithy.api#required": {}
                }
            },
            "Settings": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#Settings",
```

```
            "traits": {
                "smithy.api#documentation": "<p>The registered identity providers product related configuration settings such as the\n      subnets to provision VPC endpoints.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#RegisterIdentityProviderResponse": {
        "type": "structure",
        "members": {
          "IdentityProviderSummary":
{
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary",
            "traits": {
              "smithy.api#documentation": "<p>Metadata that describes the results of an identity provider operation.</p>",
              "smithy.api#required": {}
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException": {
        "type": "structure",
        "members": {
          "message": {
            "target": "smithy.api#String"
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>The resource couldn't be found.</p>",
          "smithy.api#error": "client",
          "smithy.api#httpError": 404
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#SecurityGroup": {
        "type": "string",

    "traits": {
          "smithy.api#length": {
            "min": 5,
            "max": 200
          },
          "smithy.api#pattern": "^sg-(([0-9a-z]{8})|([0-9a-z]{17}))$"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException": {
        "type": "structure",
        "members": {
```

```
            "message": {
                "target": "smithy.api#String"
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>The request failed because a service quota is exceeded.</p>",
            "smithy.api#error": "client"
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#Settings": {
        "type": "structure",
        "members": {
            "Subnets": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#Subnets",
                "traits": {
                    "smithy.api#documentation":
"<p>The subnets defined for the registered identity provider.</p>",
                    "smithy.api#length": {
                        "min": 1
                    },
                    "smithy.api#required": {}
                }
            },
            "SecurityGroupId": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#SecurityGroup",
                "traits": {
                    "smithy.api#documentation": "<p>A security group ID that allows inbound TCP port 1688
communication between resources in\n      your VPC and the VPC endpoint for activation servers.</p>",
                    "smithy.api#required": {}
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>The registered identity providers product related configuration settings
such as the\n      subnets to provision VPC endpoints, and the security group ID that
 is associated with the VPC\n      endpoints. The security group should permit inbound TCP port 1688
communication from resources\n      in the VPC.</p>"
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscription": {
        "type": "operation",
        "input": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscriptionRequest"
        },
        "output": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscriptionResponse"
        },
        "errors": [
```

```
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
            },
            {
              "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
            }
          ],
          "traits": {
            "smithy.api#documentation": "<p>Starts a product subscription for a user with the specified identity provider.</p>\n <note>\n <p>Your estimated bill for charges on the number of users and related costs will take 48\n hours to appear for billing periods that haven't closed (marked as <b>Pending</b> billing status) in Amazon Web Services Billing.
 For more information, see <a href=\"https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/invoice.html\">Viewing your\n monthly charges</a> in the <i>Amazon Web Services Billing User Guide</i>.</p>\n </note>",
            "smithy.api#http": {
              "code": 200,
              "method": "POST",
              "uri": "/user/StartProductSubscription"
            }
          }
        },
        "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscriptionRequest": {
          "type": "structure",
          "members": {
            "Username": {
              "target": "smithy.api#String",
              "traits": {
                "smithy.api#documentation": "<p>The user name from the identity provider of the user.</p>",
                "smithy.api#required": {}
              }
            },
            "IdentityProvider": {
```

```
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
             "traits": {
               "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
               "smithy.api#required": {}
             }
           },
           "Product": {
             "target": "smithy.api#String",
             "traits": {
               "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
               "smithy.api#required": {}
             }
           },
           "Domain": {
             "target": "smithy.api#String",
             "traits": {
               "smithy.api#documentation": "<p>The domain name of the user.</p>"
             }
           }
         }
       },
       "com.amazonaws.licensemanagerusersubscriptions#StartProductSubscriptionResponse": {
         "type": "structure",
          "members": {
           "ProductUserSummary": {
             "target": "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummary",
             "traits": {
               "smithy.api#documentation": "<p>Metadata that describes the start product subscription
operation.</p>",
               "smithy.api#required": {}
             }
           }
         }
       },
       "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscription": {
         "type": "operation",
         "input": {
           "target": "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscriptionRequest"
         },
         "output": {
           "target": "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscriptionResponse"
         },
         "errors": [
           {
             "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"

    },
           {
```

```
            "target": "com.amazonaws.licensemanagerusersubscriptions#ConflictException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ResourceNotFoundException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ServiceQuotaExceededException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Stops a product subscription for a user with the specified identity
provider.</p>",
          "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/user/StopProductSubscription"
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscriptionRequest": {
        "type": "structure",
        "members": {
          "Username": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The user name from the identity provider for the user.</p>",
              "smithy.api#required": {}
            }
          },
          "IdentityProvider": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
            "traits": {
              "smithy.api#documentation": "<p>An object that specifies details for the identity provider.</p>",
              "smithy.api#required":
{}
            }
          },
          "Product": {
            "target": "smithy.api#String",
```

```
            "traits": {
              "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
              "smithy.api#required": {}
            }
          },
          "Domain": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The domain name of the user.</p>"
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#StopProductSubscriptionResponse": {
        "type": "structure",
        "members": {
          "ProductUserSummary": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ProductUserSummary",
            "traits": {
              "smithy.api#documentation":
"<p>Metadata that describes the start product subscription operation.</p>",
              "smithy.api#required": {}
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#StringList": {
        "type": "list",
        "member": {
          "target": "smithy.api#String"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#Subnet": {
        "type": "string",
        "traits": {
          "smithy.api#pattern": "subnet-[a-z0-9]{8,17}"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#Subnets": {
        "type": "list",
        "member": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#Subnet"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException": {
        "type": "structure",
        "members": {
          "message": {
```

```
            "target": "smithy.api#String"
          }
        },
        "traits": {
          "smithy.api#documentation": "<p>The request was denied because of request throttling. Retry the
request.</p>",
          "smithy.api#error": "client"
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettings": {
        "type": "operation",
        "input": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettingsRequest"
        },
        "output": {
          "target": "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettingsResponse"
        },
        "errors": [
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#AccessDeniedException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#InternalServerException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ThrottlingException"
          },
          {
            "target": "com.amazonaws.licensemanagerusersubscriptions#ValidationException"
          }
        ],
        "traits": {
          "smithy.api#documentation": "<p>Updates additional product configuration settings for the registered
identity\n      provider.</p>",
          "smithy.api#http": {
            "code": 200,
            "method": "POST",
            "uri": "/identity-provider/UpdateIdentityProviderSettings"
          },
          "smithy.api#idempotent": {}
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettingsRequest": {
        "type": "structure",
        "members": {
          "IdentityProvider": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProvider",
```

```
            "traits": {
              "smithy.api#required": {}
            }
          },
          "Product": {
            "target": "smithy.api#String",
            "traits": {
              "smithy.api#documentation": "<p>The name of the user-based subscription product.</p>",
              "smithy.api#required": {}
            }
          },
          "UpdateSettings": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#UpdateSettings",
            "traits": {
              "smithy.api#documentation": "<p>Updates the registered identity providers product related configuration settings. You can\n      update any combination of settings in a single operation such as the:</p>\n <ul>\n          <li>\n              <p>Subnets which you want to add to provision VPC endpoints.</p>\n          </li>\n          <li>\n              <p>Subnets which you want to remove the VPC endpoints from.</p>\n          </li>\n <li>\n              <p>Security group ID which permits traffic to the VPC endpoints.</p>\n          </li>\n      </ul>",
              "smithy.api#required": {}
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#UpdateIdentityProviderSettingsResponse": {
        "type": "structure",
        "members": {
          "IdentityProviderSummary": {
            "target": "com.amazonaws.licensemanagerusersubscriptions#IdentityProviderSummary",
            "traits": {
              "smithy.api#required": {}
            }
          }
        }
      },
      "com.amazonaws.licensemanagerusersubscriptions#UpdateSettings": {
        "type": "structure",
        "members": {
          "AddSubnets": {

           "target": "com.amazonaws.licensemanagerusersubscriptions#Subnets",
            "traits": {
              "smithy.api#documentation": "<p>The ID of one or more subnets in which License Manager will create a VPC endpoint for products that\n      require connectivity to activation servers.</p>",
              "smithy.api#required": {}
            }
          },
          "RemoveSubnets": {
```

```
                "target": "com.amazonaws.licensemanagerusersubscriptions#Subnets",
                "traits": {
                    "smithy.api#documentation": "<p>The ID of one or more subnets to remove.</p>",
                    "smithy.api#required": {}
                }
            },
            "SecurityGroupId": {
                "target": "com.amazonaws.licensemanagerusersubscriptions#SecurityGroup",
                "traits": {
                    "smithy.api#documentation": "<p>A security group ID
 that allows inbound TCP port 1688 communication between resources in\n      your VPC and the VPC endpoints for
activation servers.</p>"
                }
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>Updates the registered identity providers product related configuration
settings such as\n      the subnets to provision VPC endpoints.</p>"
        }
    },
    "com.amazonaws.licensemanagerusersubscriptions#ValidationException": {
        "type": "structure",
        "members": {
            "message": {
                "target": "smithy.api#String"
            }
        },
        "traits": {
            "smithy.api#documentation": "<p>A parameter is not valid.</p>",
            "smithy.api#error": "client"
        }
    }
  }
}
```


1.571 curl 8.17.0

1.571.1 Available under license :

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1.572 tdb 1.4.14

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a) under this License, provided that you make a good faith effort to ensure that, in the event an Application does not supply the function or data, the facility still operates, and performs whatever part of its purpose remains meaningful, or

b) under the GNU GPL, with none of the additional permissions of
this License applicable to that copy.

3. Object Code Incorporating Material from Library Header Files.

The object code form of an Application may incorporate material from
a header file that is part of the Library. You may convey such object
code under terms of your choice, provided that, if the incorporated
material is not limited to numerical parameters,
data structure
layouts and accessors, or small macros, inline functions and templates
(ten or fewer lines in length), you do both of the following:

a) Give prominent notice with each copy of the object code that the
Library is used in it and that the Library and its use are
covered by this License.

b) Accompany the object code with a copy of the GNU GPL and this license
document.

4. Combined Works.

You may convey a Combined Work under terms of your choice that,
taken together, effectively do not restrict modification of the
portions of the Library contained in the Combined Work and reverse
engineering for debugging such modifications, if you also do each of
the following:

a) Give prominent notice with each copy of the Combined Work that
the Library is used in it and that the Library and its use are
covered by this License.

b) Accompany the Combined Work with a copy of the GNU GPL and this license
document.

c) For a Combined Work that
displays copyright notices during
execution, include the copyright notice for the Library among
these notices, as well as a reference directing the user to the
copies of the GNU GPL and this license document.

d) Do one of the following:

0) Convey the Minimal Corresponding Source under the terms of this
License, and the Corresponding Application Code in a form
suitable for, and under terms that permit, the user to
recombine or relink the Application with a modified version of

the Linked Version to produce a modified Combined Work, in the manner specified by section 6 of the GNU GPL for conveying Corresponding Source.

1) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (a) uses at run time a copy of the Library already present on the user's computer system, and (b) will operate properly with a modified version of the Library that is interface-compatible with the Linked Version.

e) Provide Installation Information, but only if you would otherwise be required to provide such information under section 6 of the GNU GPL, and only to the extent that such information is necessary to install and execute a modified version of the Combined Work produced by recombining or relinking the Application with a modified version of the Linked Version. (If you use option 4d0, the Installation Information must accompany the Minimal Corresponding Source and Corresponding Application Code. If you use option 4d1, you must provide the Installation Information in the manner specified by section 6 of the GNU GPL for conveying Corresponding Source.)

5. Combined Libraries.

You may place library facilities that are a work based on the Library side by side in a single library together with other library facilities that are not Applications and are not covered by this License, and convey such a combined library under terms of your choice, if you do both of the following:

a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities, conveyed under the terms of this License.

b) Give prominent notice with the combined library that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.

6. Revised Versions of the GNU Lesser General Public License.

The Free Software Foundation may publish revised and/or new versions of the GNU Lesser General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Library as you received it specifies that a certain numbered version of the GNU Lesser General Public License "or any later version" applies to it, you have the option of following the terms and conditions either of that published version or of any later version published by the Free Software Foundation. If the Library as you received it does not specify a version number of the GNU Lesser General Public License, you may choose any version of the GNU Lesser General Public License ever published by the Free Software Foundation.

If the Library as you received it specifies that a proxy can decide whether future versions of the GNU Lesser General Public License shall apply, that proxy's public statement of acceptance of any version is permanent authorization for you to choose that version for the Library.

1.573 jsch 1.0

1.573.1 Available under license :

No license file was found, but licenses were detected in source scan.

/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */

Found in path(s):
* /jsch-0-1-53-sources-5-jar/com/jcraft/jsch/Buffer.java
No license file was found, but licenses were detected in source scan.

/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/Channel.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/ChannelAgentForwarding.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/ChannelDirectTCPIP.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/ChannelExec.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/ChannelForwardedTCPIP.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/ChannelSession.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/ChannelSftp.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/ChannelShell.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/ChannelSubsystem.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */

/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/ChannelX11.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/Cipher.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/CipherNone.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/Compression.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/ConfigRepository.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/DH.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/DHEC256.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/DHEC384.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/DHEC521.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/DHECN.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/DHG1.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/DHG14.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/DHGEX.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/DHGEX256.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/ECDH.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/ForwardedTCPIPDaemon.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/GSSContext.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/HASH.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/HostKey.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/HostKeyRepository.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/IO.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/Identity.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/IdentityFile.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-

jar/com/jcraft/jsch/IdentityRepository.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/JSch.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/JSchAuthCancelException.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/JSchException.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/JSchPartialAuthException.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/KeyExchange.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/KeyPair.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/KeyPairDSA.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/KeyPairECDSA.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/KeyPairGenDSA.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/KeyPairGenECDSA.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/KeyPairGenRSA.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/KeyPairPKCS8.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/KeyPairRSA.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/KnownHosts.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/LocalIdentityRepository.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/Logger.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/MAC.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/OpenSSHConfig.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/PBKDF.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/Packet.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/PortWatcher.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/Proxy.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */

/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/ProxyHTTP.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/ProxySOCKS4.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/ProxySOCKS5.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/Random.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/Request.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/RequestAgentForwarding.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/RequestEnv.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/RequestExec.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/RequestPtyReq.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/RequestSftp.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/RequestShell.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/RequestSignal.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/RequestSubsystem.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/RequestWindowChange.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/RequestX11.java/* -*-mode:java; c-basic-offset:2;
indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/ServerSocketFactory.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/Session.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/SftpATTRS.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/SftpException.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/SftpProgressMonitor.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/SftpStatVFS.java/*
-*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/Signature.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/SignatureDSA.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */

/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/SignatureECDSA.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/SignatureRSA.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/SocketFactory.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/UIKeyboardInteractive.java/*
-*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/UserAuth.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/UserAuthGSSAPIWithMIC.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/UserAuthKeyboardInteractive.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/UserAuthNone.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/UserAuthPassword.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/UserAuthPublicKey.java/*
-*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/UserInfo.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/Util.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/jce/AES128CBC.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/jce/AES128CTR.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/jce/AES192CBC.java/* -*-mode:java; c-basic-offset:2;
indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/jce/AES192CTR.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/jce/AES256CBC.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/jce/AES256CTR.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/jce/ARCFOUR.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/jce/ARCFOUR128.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/jce/ARCFOUR256.java/*
-*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/jce/BlowfishCBC.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */

/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/jce/DH.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/jce/ECDH256.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/jce/ECDH384.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/jce/ECDH521.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/jce/ECDHN.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/jce/HMAC.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/jce/HMACMD5.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/jce/HMACMD596.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/jce/HMACSHA1.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/jce/HMACSHA196.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/jce/HMACSHA256.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/jce/HMACSHA512.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/jce/KeyPairGenDSA.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/jce/KeyPairGenECDSA.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/jce/KeyPairGenRSA.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/jce/MD5.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/jce/PBKDF.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/jce/Random.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/jce/SHA1.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/jce/SHA256.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/jce/SHA384.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/jce/SHA512.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/jce/SignatureDSA.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */

/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/jce/SignatureECDSA.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/jce/SignatureRSA.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/jce/TripleDESCBC.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/jce/TripleDESCTR.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/jcraft/Compression.java/*
 -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/jcraft/HMAC.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/jcraft/HMACMD5.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/jcraft/HMACMD596.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/jcraft/HMACSHA1.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/jcraft/HMACSHA196.java/* -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */
/opt/cola/permits/2795032293_1770718154.9652126/0/jsch-0-1-53-sources-5-jar/com/jcraft/jsch/jgss/GSSContextKrb5.java/*
 -*-mode:java; c-basic-offset:2; indent-tabs-mode:nil -*- */

Found in path(s):
*

1.574 lz4 2.6.1+incompatible

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1.575 iputils 0250602

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1.576 linux-kernel 5.10.246

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```
/* nicstar.c  v0.22  Jawaid Bazyar (bazyar@hypermall.com)
* nicstar.c, M. Welsh (matt.welsh@cl.cam.ac.uk)
*
* Hacked October, 1997 by Jawaid Bazyar, Interlink Advertising Services Inc.
*  http://www.hypermall.com/
* 10/1/97 - commented out CFG_PHYIE bit - we don't care when the PHY
* interrupts us (except possibly for removal/insertion of the cable?)
* 10/4/97 - began heavy inline documentation of the code. Corrected typos
* and spelling mistakes.
* 10/5/97 - added code to handle PHY interrupts, disable PHY on
* loss of link, and correctly re-enable PHY when link is
* re-established. (put back CFG_PHYIE)
*
*   Modified to work with the IDT7721 nicstar -- AAL5 (tested) only.
*
* R. D. Rechenmacher <ron@fnal.gov>, Aug. 6, 1997
*
* Linux driver for the IDT77201 NICStAR PCI ATM controller.
* PHY component is expected to be 155 Mbps S/UNI-Lite or IDT 77155;
* see init_nicstar() for PHY initialization to change this. This driver
* expects the Linux ATM stack to support scatter-gather
 lists
* (skb->atm.iovcnt != 0) for Rx skb's passed to vcc->push.
*
* Implementing minimal-copy of received data:
*   IDT always receives data into a small buffer, then large buffers
*     as needed. This means that data must always be copied to create
*     the linear buffer needed by most non-ATM protocol stacks (e.g. IP)
*     Fix is simple: make large buffers large enough to hold entire
*     SDU, and leave <small_buffer_data> bytes empty at the start. Then
*     copy small buffer contents to head of large buffer.
*   Trick is to avoid fragmenting Linux, due to need for a lot of large
*     buffers. This is done by 2 things:
*       1) skb->destructor / skb->atm.recycle_buffer
*            combined, allow nicstar_free_rx_skb to be called to
*            recycle large data buffers
*       2) skb_clone of received buffers
*   See nicstar_free_rx_skb and linearize_buffer for implementation
*     details.
*
*
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* M. Welsh, 6 July 1996
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  || strcmp(license, "GPL v2") == 0
  || strcmp(license, "GPL and additional rights") == 0
  || strcmp(license, "Dual BSD/GPL") == 0
  || strcmp(license, "Dual MIT/GPL") == 0
  || strcmp(license, "Dual MPL/GPL") == 0);
}

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1.577 pciutils 3.3.1

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