



Cisco IOS Software Activation Commands

clear license agent

To clear license agent statistics counters or connection statistics, use the **clear license agent** command in privileged EXEC mode.

clear license agent {counters | sessions}

Syntax Description

counters	Clears license agent statistics counters.
sessions	Clears license agent connection statistics.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
15.0(1)M	This command was introduced.

Examples

The following example clears license agent statistics counters:

```
Router# clear license agent counters
```

Related Commands

Command	Description
show license	Displays information about a Cisco IOS software license.

debug license

To enable controlled Cisco IOS software license debugging activity on a device, use the **debug license** command in privileged EXEC mode. To disable debugging, use the no form of this command.

```
debug license {agent {all | error} | core {all | errors | events} | errors | events | ipc}
```

```
no debug license {agent {all | error} | core {all | errors | events} | errors | events | ipc}
```

Cisco ASR 1001 Router Platforms

```
debug license {core {all | errors | events} | errors | ipc}
```

```
no debug license {core {all | errors | events} | errors | ipc}
```

Syntax Description	agent	core	errors	events	ipc
	Debugs license agent information. <ul style="list-style-type: none"> all—Debugs all license agent messages. error—Debugs only license agent error messages. 	Debugs messages from a license core module. <ul style="list-style-type: none"> all—Debugs all license core messages errors—Debugs only license core error messages events—Debugs only license core event messages. 	Debugs license warnings and errors.	Debugs license event messages.	Debugs license interprocess communication (IPC) messages.

Command Default Debugging is disabled.

Command Modes Privileged EXEC (#)

Command History	Release	Modification
	12.2(35)SE2	This command was introduced.
	12.4(15)XZ	This command was integrated into Cisco IOS Release 12.4(15)XZ.
	12.4(20)T	This command was integrated into Cisco IOS Release 12.4(20)T.
	Cisco IOS XE Release 3.2S	This command was implemented on the Cisco ASR 1001 router.

Usage Guidelines Use this command to help troubleshoot issues with licenses on a device.

On the Cisco ASR 1001 router, the output from the **debug license** command is not in standard IOS format. You must execute the **request platform software trace rotate all** privileged EXEC command to make the output in the log files in the bootflash:tracelogs directory.

Examples

The following example shows how to enable debugging for license warnings and errors on a router:

```
Router# debug license errors
```

The following example shows how to enable debugging for all license agent information on a switch:

```
Switch# debug license agent all
```

```
license agent app https[0x43FBC7C]: urlhook function
license agent app https[0x43FBC7C]: https action function
LIC_AGENT:Processing XML message
<?xml version="1.0" encoding="UTF-8"?>
<SOAP:Envelope xmlns:SOAP="http://www.w3.org/2003/05/soap-envelope">
<SOAP:Header>
<clm:Header version="1.0" xmlns:clm="http://www.cisco.com/clm">
<clm:Time>2003-04-23T20:27:19.827Z</clm:Time>
</clm:Header>
</SOAP:Header>
<SOAP:Body>
<lica:request xmlns:lica="http://www.cisco.com/clm">
<lica:installRequest>
<lica:license encoding="BASE64">
PENJUONPX1dUX0FSVElGQUNUyB2ZXJzaW9uPSIxLjAiPjxDSVNDT19XVF9MSUNFTlNFIHZlcnNp
b249IjEuMCI+PEZFRVVRVUkVfTkFNRT5pcGJhc2U8L0ZFRVVRVUkVfTkFNRT48RkVBVfVSRV9WRVJT
SU90PjEuMdwRkVBVfVSRV9WRVJTSU90PjxvREk+PFBJRD5CVUxMU0VZRTI0PC9QSUQ+PFNOPkNB
VDEwMDZSMEU4PC9TTj48L1VEST48U09VUkNFPkNpc2NvIEhrPC9TT1VSQ0U+PENSUFURV9EQVRF
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dGs2Z3ZtaItFUUtSZkQ5TbpbWUxY3pyZEt4ZklMVDBMYVhUNDE2bndtZnA5M1R5YTZ2SVE0Rm5s
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Y3Rpb25zPSJNYXggOTkgQVNDsUkgY2hhcmFjdGVycyBpbiBsZW5ndGguIj48L1VTRVJfTU9ESUZJ
QUJ
```

license accept end user agreement

To accept the end-user license agreement (EULA) for all Cisco IOS software packages and features at one time, use the **license accept end user agreement** command in global configuration mode.

license accept end user agreement

Syntax Description This command has no arguments or keywords.

Command Default EULA is not accepted.

Command Modes Global configuration (config)

Command History	Release	Modification
	15.0(1)M4	This command was introduced for the fixed Cisco ISR and the Cisco ISR G2 platforms.

Usage Guidelines The **license accept end user agreement** command is used to accept the EULA for all Cisco IOS software packages and features. After the command is issued and the EULA accepted, it is automatically applied for all Cisco IOS software packages and feature licenses.

- If this configuration command is part of the start-up configuration, it implies that the EULA is accepted. The EULA is automatically applied to any subsequent license that is activated; the EULA is not displayed and the user is not prompted to accept the EULA.
- A copy of the terms of the End User License Agreement (EULA) is available at http://www.cisco.com/en/US/docs/general/warranty/English/EU1KEN_.html

Examples The following example shows how to configure the EULA:

```
Router(config)# license accept end user agreement
```

Related Commands	Command	Description
	license install	Installs a stored license file.
	show license	Displays information about a Cisco IOS software license.

license agent default

To configure license agent authentication, use the **license agent default** command in global configuration mode.

license agent default authenticate [none]

Syntax Description

authenticate	Authenticates by using the HTTP mechanism.
none	(Optional) Disables (bypasses) HTTP authentication.

Command Default

The license agent is enabled, and it monitors the HTTP path /lic-agent by using plaintext.

Command Modes

Global configuration (config)

Command History

Release	Modification
15.0(1)M	This command was introduced.
15.0(1.1)M	This command was modified. The no form of the command was removed.

Usage Guidelines

By default, the license agent starts automatically when the device boots up.

The agent responds to ConnectRequest XML messages, and depending on the configuration of the **license agent listener http** command, all other Cisco License Manager XML messages.

Examples

The following example shows how to use the default HTTP mechanism for authentication:

```
Router(config)# license agent default authenticate
```

Related Commands

Command	Description
license agent listener	Configures the path that the license agent authentication monitors.
license agent max-sessions	Limits the number of HTTP sessions to the license agent.
license agent notify	Specifies the URL to send license agent notifications.

license agent listener

To configure the path that the license agent authentication monitors, use the **license agent listener** command in global configuration mode. To return to the default setting, use the **no** form of this command.

```
license agent listener http {encrypt | plaintext} url-path authenticate [acl access-list]
[max-message size] [none]
```

```
no license agent listener http
```

Syntax Description		
http		Uses the HTTP listener transport.
encrypt		Accepts encrypted connections.
plaintext		Accepts plaintext connections.
<i>url-path</i>		The HTTP servlet path to respond to (for example, http://10.1.1.1/abc).
authenticate		Authenticates by using the default HTTP mechanism.
acl access-list		(Optional) Uses the specified access list for trusted clients on this session. The range is 1 to 65536.
max-message size		(Optional) Defines the maximum message size that the license agent accepts. The range is 1000 to 4294967295.
none		(Optional) Disables (bypasses) HTTP authentication.

Command Default The license agent authentication monitors the HTTP path /lic-agent by using plaintext.

Command Modes Global configuration (config)

Command History	Release	Modification
	15.0(1)M	This command was introduced.

Usage Guidelines This command starts the license agent in listener mode.

If the *url-path* argument is not */lic-agent*, then */lic-agent* (for example, license agent default) accepts only the ConnectRequest message. Otherwise, if the value for the *url-path* argument is */lic-agent* (and encrypt is specified), then encrypt */lic-agent* accepts all requests and plaintext */lic-agent* accepts only the ConnectRequest message.

Examples The following example shows how to authenticate the license agent by using the HTTP encrypted authentication mechanism:

```
Router(config)# license agent listener http encrypt /lic-agent authenticate
```

Related Commands

Command	Description
license agent default	Configures license agent authentication.
license agent max-sessions	Limits the number of HTTP sessions to the license agent.
license agent notify	Specifies the URL to send license agent notifications.

license agent max-sessions

To limit the number of HTTP sessions to the license agent, use the **license agent max-sessions** command in global configuration mode. To return to the default setting, use the **no** form of this command.

license agent max-sessions *number*

no license agent max-sessions

Syntax Description	<i>number</i>	Maximum number of license agent sessions (4 to 25).
--------------------	---------------	---

Command Default	The default number of HTTP sessions is 9.
-----------------	---

Command Modes	Global configuration (config)
---------------	-------------------------------

Command History	Release	Modification
	15.0(1)M	This command was introduced.

Examples The following example shows how to limit the number of concurrent license agent sessions on a router:

```
Router(config)# license agent max-sessions 5
Router(config)# exit
Router# show license agent session
License Agent Sessions: 0 open, maximum is 5
```

Related Commands	Command	Description
	license agent default	Configures license agent authentication.
	license agent listener	Configures the path that the license agent authentication monitors.
	license agent notify	Specifies the URL to send license agent notifications.

license agent notify

To specify the URL to send license agent notifications, use the **license agent notify** command in global configuration mode. To remove the configuration, use the **no** form of this command.

license agent notify *url-path user password version*

no license agent notify

Syntax Description

<i>url-path</i>	URL to use (for example, http://10.1.1.1/abc).
<i>user</i>	HTTP-level username to use.
<i>password</i>	HTTP-level password to use.
<i>version</i>	Notification version number.

Command Default

The URL is not configured.

Command Modes

Global configuration (config)

Command History

Release	Modification
15.0(1)M	This command was introduced.

Usage Guidelines

You can also configure this command by using the Cisco License Manager message ConnectRequest.

Examples

The following example shows how to specify the URL to send license agent notifications:

```
Router(config)# license agent notify http://10.1.1.1/abc users anonymous 1
```

Related Commands

Command	Description
license agent default	Configures license agent authentication.
license agent listener	Configures the path that the license agent authentication monitors.
license agent max-sessions	Limits the number of HTTP sessions to the license agent

license boot level

To boot a new software license on switching platforms, use the **license boot level** command in global configuration mode. To return to the previously configured license level, use the **no** form of this command.

Cisco Catalyst 3560-E Switch Platforms

license boot level *license-level*

no license boot level *license-level*

Cisco Catalyst 3750-E Switch and Switch Stack Platforms

license boot level *license-level* [**switch** *switch-num*]

no license boot level *license-level* [**switch** *switch-num*]

Cisco Catalyst 3750-E Switch Mixed Stack Platforms

license boot level *license-level* **switch** *switch-num*

no license boot level *license-level* **switch** *switch-num*

Cisco Catalyst 4500E Series Switch Platforms

license boot level *license-level*

Syntax	Description
<i>license-level</i>	Level at which the switch is booted (for example, ipservices). The license levels available in a universal/universalk9 image are: <ul style="list-style-type: none"> • entservices • ipbase • lanbase The license levels available in a universal-lite/universal-litek9 image are: <ul style="list-style-type: none"> • ipbase • lanbase
switch <i>switch-num</i>	Switch or slot ID in a stackable environment.

Command Default The switch boots the configured image.

Command Modes Global configuration (config)

Command History

Release	Modification
12.4(15)XZ	This command was introduced.
12.4(20)T	This command was integrated into Cisco IOS Release 12.4(20)T.
Cisco IOS XE Release 3.1.0SG	This command was integrated into Cisco IOS XE Release 3.1.0SG on Catalyst 4500E series switches.

Usage Guidelines

Use the **license boot level** command for these purposes:

- Downgrade or upgrade licenses
- Enable or disable an evaluation or extension license
- Clear an upgrade license

This command forces the licensing infrastructure to boot the configured license level instead of the license hierarchy maintained by the licensing infrastructure for a given module.

- When the switch reloads, the licensing infrastructure checks the configuration in the startup configuration for any licenses. If there is a license in the configuration, the switch boots with that license. If there is no license, the licensing infrastructure follows the image hierarchy to check for licenses.
- If the forced boot evaluation license expires, the licensing infrastructure follows the regular hierarchy to check for licenses.
- If the configured boot license is already expired, the licensing infrastructure follows the hierarchy to check for licenses.

This command takes effect at the next reboot of any of the supervisors (Act or stby). This configuration must be saved to the startup configuration for it to be effective. After you configure the level, the next time the standby supervisor boots up, this configuration is applied to it.

To boot the standby supervisor to a different level than active, configure that level by using this command and then bring up the standby.

If the **show license all** command displays the license as “Active, Not in Use, EULA not accepted,” you can use the **license boot level** command to enable the license and accept the end-user license agreement (EULA).

Examples

The following example shows how to activate the *ipbase* license on the switch upon the next reload:

```
Switch(config)# license boot level ipbase
```

Related Commands

Command	Description
license install	Installs a stored license file.
license save	Saves a copy of a permanent license to a specified license file.
show license all	Shows information about all licenses in the system.

license boot module

To boot a new software license on routing platforms, use the **license boot module** command in global configuration mode. Use the **no** form of this command to return to the default setting.

Cisco ASR 1001 Router Platforms

license boot module *module-name* **group** { **all** | **feature** } **level** *license-level*

no license boot module

Cisco 860, 880, and 890 Series Routers, and Cisco 1900, 2900, and 3900 Series Integrated Services Router Platforms

license boot module *module-name* **level** *license-level*

no license boot module *module-name* **level** *license-level*

Cisco uBR10012 Universal Broadband Routers

license boot module *module-name* **technology-package** *package-name* [**disable**]

no license boot module *module-name* **technology-package** *package-name* [**disable**]

Syntax Description

<i>module-name</i>	Router or module to be configured (for example: c880-data or c3900).
group	Selects a specific group that contains the image and feature licenses for the device.
all	Groups by all features.
feature	Groups by feature.
level <i>license-level</i>	Boots the device or module at the specified level (for example, advipservices).
technology-package	Upgrades or downgrades a software license, or enables or disables an evaluation license.
<i>package-name</i>	Package or feature set the given module should boot (for example, data).
disable	(Optional) Disables the package or the feature set.

Command Default

The router boots the configured image.

Command Modes

Global configuration (config)

Command History

Release	Modification
12.4(15)XZ	This command was introduced.
12.4(20)T	This command was integrated into Cisco IOS Release 12.4(20)T.

Release	Modification
15.0(1)M	This command was modified. The technology-package keyword was added for the Cisco 1900, 2900, and on the 3900 series integrated services router platforms.
Cisco IOS XE Release 3.2S	This command was modified. The group , all , feature , and level keywords were added for the Cisco ASR 1001 router.

Usage Guidelines

Use the **license boot module** command for these purposes:

- Downgrade or upgrade licenses
- Enable or disable an evaluation or extension license
- Clear an upgrade license

This command forces the licensing infrastructure to boot the configured license level instead of the license hierarchy maintained by the licensing infrastructure for a given module.

- When the router reboots, the licensing infrastructure checks the configuration in the startup configuration/rommon for any licenses. If there is a license in the configuration, the router boots with that license. If there is no license, the licensing infrastructure follows the image hierarchy to check for licenses.
- If the forced boot evaluation license expires, the licensing infrastructure follows the regular hierarchy to check for licenses.
- If the configured boot license is already expired, the licensing infrastructure follows the hierarchy to check for licenses.

To make the evaluation license inactive, use the **no license boot module technology-package** command. To re-activate the evaluation license, use the **license boot module technology-package** command.

If the **show license all** command displays the license as “Active, Not in Use, EULA not accepted,” you can use the **license boot module** command to enable the license and accept the EULA. Do not confuse the **license boot module** global configuration command with a similarly named command available in privileged EXEC mode.

Examples

The following example shows how to activate the *throughput* feature that is part of the group *all* on the ASR 1001 module at the next reboot:

```
Router(config)# license boot module asr1001 group all level throughput
```

The following example shows how to activate the *advipservices* license on the c880-data module at the next reboot:

```
Router(config)# license boot module c880-data level advipservices
```

The following example shows how to enable an evaluation license:

```
Router(config)# license boot module c3900 technology-package data
```

The following example shows how to make an evaluation license inactive:

```
Router(config)# no license boot module c3900 technology-package data
```

Related Commands

Command	Description
license install	Installs a stored license file.
license save	Saves a copy of a permanent license to a specified license file.
show license all	Shows information about all licenses in the system.

license call-home install pak

To install a license by using a product authorization key (PAK) and the Cisco License Call Home feature, use the **license call-home install pak** command in privileged EXEC mode.

Cisco 860, 880, and 890 Series Routers, and Cisco 1900, 2900, and 3900 Series Integrated Services Router Platforms

```
license call-home install pak pak-id
```

Cisco Catalyst 3560-E Switch Platforms

```
license call-home install pak pak-id
```

Cisco Catalyst 3750-E Switch and Switch Stack Platforms

```
license call-home install pak pak-id [switch switch-num]
```

Cisco Catalyst 3750-E Switch Mixed Stack Platforms

```
license call-home install pak pak-id switch switch-num
```

Syntax Description

<i>pak-id</i>	A product authorization key sent through e-mail or through regular mail by manufacturing to authorize software upgrades.
switch <i>switch-num</i>	Specifies a switch in a switch stack or in a mixed switch stack. The switch number range is 1 to 9.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.2(35)SE2	This command was introduced.
12.4(15)XZ	This command was integrated into Cisco IOS Release 12.4(15)XZ.
12.4(20)T	This command was integrated into Cisco IOS Release 12.4(20)T.

Usage Guidelines

The Cisco License Call Home feature allows a Cisco router to communicate with the Cisco licensing infrastructure through the Internet and retrieve licensing information. This command requires that the router be connected to the Internet.

This command requires the following:

- The router or switch must have an Internet connection and use HTTPS to connect to the Cisco licensing infrastructure. To set up a secure HTTP connection, see the HTTP 1.1 Web Server and Client module in the *Network Management Configuration Guide*: http://www.cisco.com/en/US/docs/ios/netmgmt/configuration/guide/nm_http_web.html.
- Only certain platforms support the Cisco License Call Home feature, and those devices must be running a Cisco IOS crypto K9 image.
- You must obtain the device certificate from the Cisco licensing infrastructure.

- You must have a Cisco.com user login account.

The PAK is a unique token supplied to allow partial fulfillment of licenses. A PAK is not tied to any particular device, but rather to a product identifier (PID).

When you issue the **license call-home install pak** command, these events occur:

1. Information about the stock keeping unit (SKU) is displayed. SKUs map to one or more Cisco software features.
2. You receive prompts at the command line for required fields such as an e-mail address, username, and password to access the Cisco website and SKU quantities.
3. The user-entered data is validated and processed, and then the license is installed on the router. If data is not validated, warning messages are displayed.

Examples

The following example shows the commands, prompts, and responses required to install a license by using a PAK and the Cisco License Call Home feature. Use the **show license feature** command to verify the installation.

```
Router# license call-home install pak 3XPXR9E7D30

CCO User name: User1
CCO password : *****
Pak Number      : 3XPXR9E7D30
Pak Fulfillment type: SINGLE

      1. SKU Name           : Gatekeeper
         SKU Type          : Product
         Description       : Gatekeeper
         Ordered Qty      : 1
         Available Qty    : 1
         Feature List     :
           Feature name:      gatekeeper Count: Uncounted
         Platform Supported : N/A
                               5400
                               5350
                               2800
                               3800

Do you want to install the above listed SKU(s)? [yes/no]: yes

Please enter the user's detail:

First Name : First-name
Last Name  : Last-name
Title     : Software Engineer
Company Name : Cisco Systems
Address1  : 510 McCarthy Blvd.
Address2  [Optional]:
City     : Milpitas
State    : CA
Province [Optional]:
Zipcode  : 95134
Country  : USA
Phone   : 408 526-4000
Fax     [Optional]:
Email    : User1@cisco.com

Installing...Feature:gatekeeper...Successful
```

Related Commands	Command	Description
	license call-home resend	Restores a lost license by using the Cisco License Call Home feature.
	license call-home revoke	Rehosts (revokes and transfers) a license by using the Cisco License Call Home feature.
	show license call-home	Displays the SKU list and features available in a PAK by using the Cisco License Call Home feature.
	show license feature	Shows a list of licensed features available in an image.

license call-home resend

To request a license be re-sent by using the Cisco License Call Home feature, use the **license call-home resend** command in privileged EXEC mode.

Cisco 860, 880, and 890 Series Routers, and Cisco 1900, 2900, and 3900 Series Integrated Services Router Platforms

license call-home resend *dest-lic-location*

Cisco Catalyst 3560-E Switch Platforms

license call-home resend *dest-lic-location*

Cisco Catalyst 3750-E Switch and Switch Stack Platforms

license call-home resend *dest-lic-location* [**switch** *switch-num*]

Cisco Catalyst 3750-E Switch Mixed Stack Platforms

license call-home resend *dest-lic-location* **switch** *switch-num*

Syntax Description		
	<i>dest-lic-location</i>	<p>The location where the Cisco IOS software license is to be stored. Valid location file systems are archive, bs, flash, flashn, ftp, http, https, null, nvr, pram, rep, scp, syslog, system, tftp, tmpsys, vb. The license location can also be a directory.</p> <ul style="list-style-type: none"> The bs://, null://, and vb:// file systems do not accept filenames. The bs file system is available only on mixed Cisco 3750-E switch stacks. The archive, pram, scp, and syslog file systems are available only on router platforms. The flashn file system, where <i>n</i> is an integer in the range from 1 to 9, is available only on Cisco 3750-E switches and stacks. The https file system is not available on mixed Cisco 3750-E switch stacks and the Cisco 3560-E switch.
	switch <i>switch-num</i>	Specifies a switch in a switch stack or in a mixed switch stack. The switch number range is 1 to 9.

Command Modes Privileged EXEC (#)

Command History	Release	Modification
	12.2(35)SE2	This command was introduced.
	12.4(15)XZ	This command was integrated into Cisco IOS Release 12.4(15)XZ.
	12.4(20)T	This command was integrated into Cisco IOS Release 12.4(20)T.

Usage Guidelines

The Cisco License Call Home feature allows a Cisco router to communicate with the Cisco licensing infrastructure through the Internet and retrieve licensing information. This command requires that the router be connected to the Internet.

This command contacts the Cisco licensing back-end fulfillment system and obtains licenses that are valid for a specified unique device identifier (UDI). The **license call-home resend** command also stores the received license lines in the specified destination URL.

This command requires the following:

- The router or switch must have an Internet connection and use HTTPS to connect to the Cisco licensing infrastructure. To set up a secure HTTP connection, see the HTTP 1.1 Web Server and Client module in the *IOS Network Management Configuration Guide*: http://www.cisco.com/en/US/docs/ios/netmgmt/configuration/guide/nm_http_web.html.
- Only certain platforms support the Cisco License Call Home feature, and those devices must be running a Cisco IOS crypto K9 image.
- You must obtain the device certificate from the Cisco licensing infrastructure before starting.
- You must have a Cisco.com user login account.

This command initiates these actions:

1. The device credential is retrieved from the device and sent to the Cisco licensing infrastructure.
2. This command invokes the Cisco licensing infrastructure to request all licenses with the device credential information be sent to the device. The Cisco licensing infrastructure provides all purchased licenses for the given UDI.
3. This command stores all licenses in the destination URL (filesystem).

Examples

The following example shows the commands, prompts, and responses required to request a license to be sent from the Cisco licensing infrastructure and to be stored in the requested destination file system:

```
Router# license call-home resend flash:licenseresend.xml

CCO User name: User1
CCO password : *****
Email Address: User1@cisco.com
Alternate Email Address: User1@cisco.com
Getting Licenses from SWIFT .....
Saving it to flash:licenseresend.xml.....Done
```

Related Commands

Command	Description
license call-home install	Installs a license by using the Cisco License Call Home feature.
license call-home revoke	Rehosts (revokes and transfers) a license by using the Cisco License Call Home feature.
show license call-home	Displays the SKU list and features available in a PAK by using the Cisco License Call Home feature.

license call-home revoke

To rehost (revoke and transfer) a license by using unique device identifiers (UDIs) and the Cisco License Call Home feature, use the **license call-home revoke** command in privileged EXEC mode.

Cisco 860, 880, and 890 Series Routers, and Cisco 1900, 2900, and 3900 Series Integrated Services Router Platforms

```
license call-home revoke [udi target-udi] output-of-rehosted-license-url [permission-ticket
permission-ticket-url] [rehost-ticket rehost-ticket-url]
```

Cisco Catalyst 3560-E Switch Platforms

```
license call-home revoke [udi target-udi] output-of-rehosted-license-url [permission-ticket
permission-ticket-url] [rehost-ticket rehost-ticket-url]
```

Cisco Catalyst 3750-E Switch and Switch Stack Platforms

```
license call-home revoke [udi target-udi] output-of-rehosted-license-url [permission-ticket
permission-ticket-url] [rehost-ticket rehost-ticket-url] [switch switch-num]
```

Cisco Catalyst 3750-E Switch Mixed Stack Platforms

```
license call-home revoke [udi target-udi] output-of-rehosted-license-url [permission-ticket
permission-ticket-url] [rehost-ticket rehost-ticket-url] switch switch-num
```

Syntax Description		
udi <i>target-udi</i>	(Optional)	Revokes license information for this target UDI.
<i>output-of-rehosted-license-url</i>	(Optional)	Output received from the rehosted process, which saves the rehost ticket or the license file in the specified file system.
permission-ticket <i>permission-ticket-url</i>	(Optional)	Revokes license information by using the permission ticket in the specified URL.
rehost-ticket <i>rehost-ticket-url</i>	(Optional)	Revokes license information by using the rehost ticket in the specified URL.
switch <i>switch-num</i>		Specifies a switch in a switch stack or in a mixed switch stack. The switch number range is 1 to 9.

Command Modes Privileged EXEC (#)

Command History	Release	Modification
	12.4(15)XZ	This command was introduced.
	12.4(20)T	This command was integrated into Cisco IOS Release 12.4(20)T.

Usage Guidelines The Cisco License Call Home feature allows a Cisco router to communicate with the Cisco licensing infrastructure through the Internet and retrieve licensing information. This command requires that the router be connected to the Internet.

If you do not specify a target UDI, the rehost ticket is stored in the specified URL. If you do specify a target UDI, this command sends the rehost ticket to the Cisco licensing infrastructure with the target UDI, converts it to a license file, and stores it in the specified URL. If one of the operations fails in the call-home revoke operations, the intermediate results are stored at the specified URL and a message explaining what to do next is displayed.

This command requires the following:

- The router or switch must have an Internet connection and use HTTPS to connect to the Cisco licensing infrastructure. To set up a secure HTTP connection, see the HTTP 1.1 Web Server and Client module in the *Network Management Configuration Guide*: http://www.cisco.com/en/US/docs/ios/netmgmt/configuration/guide/nm_http_web.html.
- Only certain platforms support the Cisco License Call Home feature, and those devices must be running a Cisco IOS crypto K9 image.
- You must obtain the device certificate from the Cisco licensing infrastructure.
- You must have a Cisco.com user login account.

The **license call-home revoke EXEC** command performs this sequence of operations:

1. The Cisco licensing module establishes communication with the Cisco licensing infrastructure to start the rehost operation.
2. The Cisco licensing infrastructure sends a signed request to obtain the SKU details for this UDI from the Cisco licensing portal. The request contains the source UDI.
3. The Cisco licensing portal responds that either the target UDI is not correct or lists the stock keeping units (SKUs) available on the device for rehosting.
4. The Cisco licensing infrastructure requests the permission ticket from the licensing portal by providing the SKU and the e-mail address of the user.
5. The Cisco licensing portal provides the permission file to the Cisco licensing infrastructure.
6. The software uses this permission ticket file to generate the rehost ticket.
7. This rehost ticket is sent to the licensing back end along with the target UDI and optional e-mail address.
8. The Cisco licensing back end generates a new license file and sends it by using the e-mail address collected in the prompts.

Examples

The following example shows how to use the **license call-home revoke** command to revoke a license on the device with the specified UDI. In the display, the user selects the SKU called SL-LWAPP= to revoke the license for the *lwapp* feature. This command sends the rehost ticket to the Cisco licensing infrastructure with the target UDI, converts it to a license file, and stores it in the specified URL (flash:REHOSTED_LICENSE):.

```
Router# license call-home revoke udi CISCO887W:FHH1124P02Y flash:REHOSTED_LICENSE
CCO User name : xxxxxx
CCO password :
```

```
Retrieving the sku from swift .....!.....
```

```
1. SKU Name           : SA-LWAPP
   SKU Type            : Product
   Description         : For Internal purposes only
   Ordered Qty        : 1
   Available Qty      : 1
   Feature List       :
```

Feature name: lwapp Count: Uncounted
Platform Supported : N/A

2. SKU Name : SA880-AIS
SKU Type : Product
Description : For Internal purposes only
Ordered Qty : 1
Available Qty : 1
Feature List :
Feature name: advipservices Count: Uncounted
Platform Supported : N/A

3. SKU Name : SL-LWAPP=
SKU Type : Product
Description : For Internal purposes only
Ordered Qty : 1
Available Qty : 1
Feature List :
Feature name: lwapp Count: Uncounted
Platform Supported : N/A

4. SKU Name : SL-AV
SKU Type : Product
Description : For Internal purposes only
Ordered Qty : 1
Available Qty : 1
Feature List :
Feature name: advsecurity Count: Uncounted
Platform Supported : N/A

5. All of the above

Please select the sku number you want to revoke : 3

Retrieving the permission ticket from swift!... Output file saved to
flash: REHOSTED_LICENSE

Retrieving the rehost ticket from the device!.

Following Permanent license(s) will be revoked from this device
Feature Name: lwapp

Following Extension license(s) will be installed on this device
Feature Name: lwapp

PLEASE READ THE FOLLOWING TERMS CAREFULLY. INSTALLING THE LICENSE OR
LICENSE KEY PROVIDED FOR ANY CISCO PRODUCT FEATURE OR USING SUCH
PRODUCT FEATURE CONSTITUTES YOUR FULL ACCEPTANCE OF THE FOLLOWING
TERMS. YOU MUST NOT PROCEED FURTHER IF YOU ARE NOT WILLING TO BE BOUND
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You hereby acknowledge and agree that the product feature license
is terminable and that the product feature enabled by such license
may be shut down or terminated by Cisco after expiration of the
applicable term of the license (e.g., 30-day trial period). Cisco
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electronically or by any other means available. While alerts or such
messages may be provided, it is your sole responsibility to monitor
your terminable usage of any product feature enabled by the license
and to ensure that your systems and networks are prepared for the shut
down of the product feature. You acknowledge and agree that Cisco will
not have any liability whatsoever for any damages, including, but not
limited to, direct, indirect, special, or consequential damages related

■ license call-home revoke

to any product feature being shutdown or terminated. By clicking the "accept" button or typing "yes" you are indicating you have read and agree to be bound by all the terms provided herein.

ACCEPT? [yes/no]: **yes**

Output file saved to flash: REHOSTED_LICENSE

Retrieving the revoked license line from the swiftOutput file saved to flash: REHOSTED_LICENSE

Related Commands

Command	Description
license call-home install	Installs a license by using the Cisco License Call Home feature.
license call-home resend	Restores a lost license by using the Cisco License Call Home feature.
show license call-home	Displays the SKU list and features available in a PAK by using the Cisco License Call Home feature.

license call-home url

To configure a new URL for accessing the Cisco licensing infrastructure, use the **license call-home url** command in global configuration mode. To change the URL, use the **no** form of this command.

license call-home url *licensing-infrastructure-url*

no license call-home url

Syntax Description

licensing-infrastructure-url The HTTP address where the Cisco licensing infrastructure can be accessed.

Command Default

The default URL is <https://tools.cisco.com/SWIFT/licensing>.

Command Modes

Global configuration (config)

Command History

Release	Modification
12.4(15)XZ	This command was introduced.
12.4(20)T	This command was integrated into Cisco IOS Release 12.4(20)T.

Usage Guidelines

Use this command to configure a new URL for accessing the Cisco licensing infrastructure.

This feature requires that:

- The router or switch must have an Internet connection and use HTTPS to connect to the Cisco licensing infrastructure. To set up a secure HTTP connection, see the HTTP 1.1 Web Server and Client module in the *Network Management Configuration Guide*: http://www.cisco.com/en/US/docs/ios/netmgmt/configuration/guide/nm_http_web.html.
- Only certain platforms support the Cisco License Call Home feature, and those devices must be running a Cisco IOS crypto K9 image.
- You must obtain the device certificate from the Cisco licensing infrastructure.
- You must have a Cisco.com user login account.

Examples

The following example shows how to change the URL to <http://cisco.com/newserver>:

```
Router(config)# license call-home url http://cisco.com/newserver
```

Related Commands

Command	Description
license call-home install	Installs a license by using the Cisco License Call Home feature.
license call-home resend	Restores a lost license by using the Cisco License Call Home feature.
license call-home revoke	Rehosts (revokes and transfers) a license by using the Cisco License Call Home feature.
show license call-home	Displays the SKU list and features available in a PAK by using the Cisco License Call Home feature.
show license status	Displays license status information.

license clear

To remove a license entry from license storage, use the **license clear** command in privileged EXEC mode.

Cisco ASR 1001 Routers, Cisco 860, 880, and 890 Series Routers, and Cisco 1900, 2900, and 3900 Series Integrated Services Router Platforms

```
license clear feature-name
```

Cisco Catalyst 3560-E Switch Platforms

```
license clear feature-name
```

Cisco Catalyst 3750-E Switch and Switch Stack Platforms

```
license clear feature-name [switch switch-num]
```

Cisco Catalyst 3750-E Switch Mixed Stack Platforms

```
license clear feature-name switch switch-num
```

Syntax Description		
	<i>feature-name</i>	Name of the feature to be removed.
	switch <i>switch-num</i>	Specifies a switch in a switch stack or in a mixed switch stack. The switch number range is 1 to 9.

Command Default Licenses are not removed.

Command Modes Privileged EXEC (#)

Command History	Release	Modification
	12.2(35)SE2	This command was introduced.
	12.4(15)XZ	This command was integrated into Cisco IOS Release 12.4(15)XZ.
	12.4(20)T	This command was integrated into Cisco IOS Release 12.4(20)T.
	Cisco IOS XE Release 3.2S	This command was integrated into Cisco IOS XE Release 3.2S on the Cisco ASR 1001 router.

Usage Guidelines For the ASR 1001 router, the **license clear** command clears only image-level licenses that are *not* “in-use.” Once the throughput feature license is “in-use,” it cannot be cleared.

The **license clear** command clears all licenses, but some licenses, such as built-in licenses, cannot be cleared.

If a license is “not in-use,” the **license clear** command displays all the licenses related to this feature and prompts you to make a selection. Different prompts are displayed, depending upon whether single or multiple licenses are available in the device. The selected licenses are removed from the router or switch.

If a license is “in-use,” the **license clear** command might fail. However, depending on the application policy using the license, some licenses might be cleared.

For some devices, the **license clear** command verifies that the license line is valid and explicitly installed. Only licenses that have been added using the **license install** command are removed. Evaluation licenses are not removed.

When a switch is specified, the **license clear** command is executed only on that switch. When a mixed stack platform is used, the primary switch has installed the minimum licensing feature required to support the licensing operations of the secondary switches. The **license clear** command clears a license from license storage, which a primary switch does not have. When the command is issued from the primary switch, the switch number is required to clear a license on a specific switch.

Examples

The following example shows how to display the installed licenses on an ASR 1001 router and how to clear the throughput license. Note that active, in-use licenses cannot be cleared:

```
Router# show license all

License Store: Primary License Storage
StoreIndex: 0 Feature: throughput Version: 1.0
License Type: Evaluation
License State: Active, Not in Use, EULA accepted
Evaluation total period: 4 weeks 2 days
Evaluation period left: 0 minute 0 second
License Count: Non-Counted
License Priority: Low

Router# license clear throughput
Feature: throughput
 1 License Type: Evaluation
License State: Active, Not in Use, EULA accepted
Evaluation total period: 4 weeks 2 days
Evaluation period left: 0 minute 0 second
License Addition: Additive
License Count: Non-Counted
Comment:
Store Name: Primary License Storage

Are you sure you want to clear? (yes/[no]): yes
Router#
```

The following example shows how to clear a license associated with the advsecurity feature:

```
Router# license clear advsecurity
Feature: advsecurity
 1 License Type: Permanent
License State: Active, In Use
License Addition: Exclusive
Comment: Permanent License
Store Index: 0
Store Name: Primary License Storage

 2 License Type: Evaluation
License State: Inactive
Evaluation total period: 8 weeks 4 days
Evaluation period left: 8 weeks 4 days
```

```
License Addition: Additive
Comment:
Store Index: 1
Store Name: Primary License Storage
```

```
Select Index to Clear [1-2]: 2
Are you sure you want to clear? (yes/[no]): yes
```

Related Commands

Command	Description
license install	Installs a stored license file.
license save	Saves a copy of a permanent license to a specified license file.
show license file	Displays information in a Cisco IOS software license file.