



Software Activation on Cisco Integrated Services Routers and Cisco Integrated Service Routers Generation 2

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This document describes the activation process for Cisco software on Cisco Integrated Services Routers (ISRs) and Cisco Integrated Service Routers Generation 2 (ISR G2). Cisco routers support Cisco IOS software entitlement and enforcement on various platforms. This document supports the following products:

Modular ISRs G2	<ul style="list-style-type: none">• Cisco 3900 Series ISR• Cisco 2900 Series ISR• Cisco 1900 Series ISR
Fixed ISRs	<ul style="list-style-type: none">• Cisco 890 Series ISR• Cisco 880 Series ISR• Cisco 860 Series ISR

Finding Support Information for Platforms and Cisco IOS and Catalyst OS Software Images

Use Cisco Feature Navigator to find information about platform support and Cisco IOS and Catalyst OS software image support. To access Cisco Feature Navigator, go to <http://www.cisco.com/go/cfn>. An account on Cisco.com is not required.

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Before You Begin

When you order a new router, it is shipped preinstalled with the software image and the corresponding permanent licenses for the packages and features that you specified. You do not need to activate or register the software before use.

The following prerequisites apply if you are upgrading or installing a new Cisco IOS software license on Cisco ISRs:

- Purchase the software package or feature you want to install. You will receive a product activation key (PAK) with your purchase.
- If you do not have a cisco.com username and password, get your username and password by registering at Cisco.com.
- Familiarize yourself with the Cisco software licensing concepts detailed in the [Cisco Software Activation Conceptual Overview](#) chapter in [Cisco IOS Software Activation Configuration Guide](#).



Tip

Use the **show license feature** command to view the software packages and features supported on your router. [Table 2](#), [Table 3](#), and [Table 5](#) list the package and feature licenses available for your router.



Tip

Use the **show license** command in privileged EXEC mode to display information about the Cisco IOS software packages and features license level on your router.

Cisco IOS Software Releases Supported

The following Cisco IOS software releases support software activation on Cisco ISRs:

- Cisco 3900 series, 2900 series, and 1900 series ISRs running Cisco IOS Release 15.0(1)M.
 - Cisco 3925E and Cisco 3945E ISR running Cisco IOS Release 15.1(1)T.
- Right to Use license is supported on Cisco IOS Release 15.0(1)M4, 15.1(1)T2, 15.1(2)T2, 15.1(3)T, 15.1(4)M1, or later.
- Cisco 800 series ISRs running Cisco IOS Release 12.4(15)XZ or later support either the non-cryptographic image or the cryptographic image.
- Cisco 800 series ISRs running Cisco IOS Release images earlier than Cisco IOS Release 12.4(15)XZ do not support software activation.

Information About Software Activation on Cisco ISRs and ISRs G2

The Cisco IOS universal image contains *all* packages and features in one image. You can access the required functionality based on the license installed on your router.

Software Claim Certificate and License Activation

Software Claim Certificates are used for licenses that require software activation. The claim certificate provides the Product Activation Key (PAK) for your license and important information regarding the Cisco End User License Agreement (EULA).

In most cases, Cisco or your Cisco partner will have already activated the licenses ordered at the time of purchase and no Software Claim Certificate is provided. You can determine the licenses activated on your system by issuing the **show license feature** command on the router command-line interface (CLI) or with a Cisco management application such as Cisco CP or Cisco License Manager (CLM). Cisco License Manager is a free software application available at <http://www.cisco.com/go/clm>.

Right to Use Notification

When you order a license from Cisco, you will receive a Right to Use Notification. You may begin using the licensed features upon receipt of the Right to Use Notification. Keep the Right to Use Notification for your records as proof of your license purchase.

Universal Device Identifier

The universal device identifier (UDI) has two main components: the product ID (PID) and the serial number (SN). For Cisco 3900 Series platforms that use field-replaceable unit (FRU) motherboards, the motherboard PID and SN are used. All other platforms use the chassis PID and SN.

The PID and SN are printed on a label located on the back of most Cisco hardware devices or on a label tray visible on the front panel of field-replaceable motherboards. See your router's *Hardware Installation Guide* or *Read Me First* to see the location of the label.



Tip The Cisco Product Identification (CPI) tool provides detailed illustrations and descriptions showing where to locate serial number labels on Cisco products. The Cisco Product Identification tool can be accessed at <http://tools.cisco.com/Support/CPI/index.do>.

The UDI can be viewed using the **show license udi** command in privileged Exec mode.

UDI Example

The following example shows the output from the **show license udi** command on a Cisco 3925 ISR:

```
Router#show license udi
Device#    PID                               SN                               UDI
-----
*0         C3900-SPE100/K9                   FHH13030044                     C3900-SPE100/K9:FHH13030044
Router#
```

Evaluation License

Your router comes with the evaluation license, also known as a temporary license, for most packages and features supported on your router. If you want to try a new software package or feature, activate the evaluation license for that package or feature.

Right to Use License

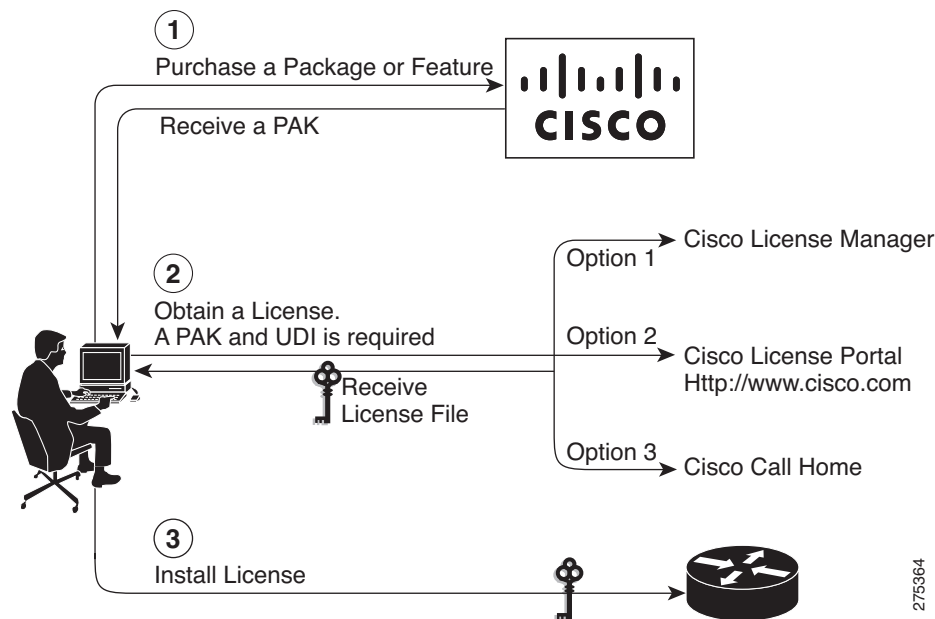
Right to Use licenses are available on Cisco IOS Release 15.0(1)M4, 15.1(1)T2, 15.1(2)T2, 15.1(3)T, 15.1(4)M1, or later. These licenses are available on the honor system.

Permanent License

If you want to permanently activate a software package or feature on your router, you must get a new software license.

Figure 1 shows the steps for software activation.

Figure 1 Steps for Software Activation



End User License Agreement

By accessing or using the Cisco products received with your Cisco ISR or ISR G2, you agree that your use of such products is governed by the terms and conditions of the Cisco Software License and any applicable supplemental license agreement. 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.

A EULA is presented for acceptance when you activate an evaluation license.

Software Packages and Features

The Cisco IOS universal image contains *all* packages and features in one image. The universal image on the Cisco 1900, 2900, and 3900 series ISRs are a superset of Cisco IOS simplified technology packages.

Each package is a grouping of technology-specific features. Multiple technology package licenses can be installed and activated on the Cisco 1900, 2900, and 3900 series ISR platforms.

Individual features can be enabled or disabled by license keys. Feature licenses may be subscription-based, uncounted, or count-based licenses.

**Tip**

Use the **show license feature** command to view the technology package licenses and feature licenses supported on your router.

The Cisco 1900, 2900, and 3900 series ISRs support the following universal images:

- `universalk9`—offers all IOS features supported by next generation ISRs.
- `universalk9_npe`—does not support VPN payload and secure voice functionality and satisfies import considerations for CIS countries.

[Table 1](#) lists the image names for the Cisco 1900 series, 2900 series, and 3900 series routers.

Table 1 *Universal Image Names for Cisco 1900 Series, 2900 Series, and 3900 ISRs*

Platform	Image Name
CISCO 1905, CISCO 1921	c1900-universalk9-mz
	c1900-universalk9_npe-mz
CISCO1941, CISCO1941W	c1900-universalk9-mz
	c1900-universalk9_npe-mz
CISCO2901, CISCO2911, CISCO2921	c2900-universalk9-mz
	c2900-universalk9_npe-mz
CISCO2951	c2951-universalk9-mz
	c2951-universalk9_npe-mz
CISCO3925, CISCO3945	c3900-universalk9-mz
	c3900-universalk9_npe-mz
CISCO3925E, CISCO3945E	c3900e-universalk9-mz
	c3900e-universalk9_npe-mz

The following sections provide information on the technology package and feature licenses available on your router.

- [Technology Package Licenses, page 6](#)
- [Feature Licenses, page 7](#)
- [Evaluation and Right to Use Licenses, page 8](#)
- [Resource Allocation with securityk9 Technology Package License, page 8](#)
- [Platform Limitations, page 10](#)

Technology Package Licenses

The features available in a technology package license may differ from platform to platform. For a list of features available in a technology package license, use the Cisco Feature Navigator at: <http://www.cisco.com/go/cfn>

Table 2 lists the technology package licenses supported on Cisco ISR platforms.

Table 2 Technology Package Licenses Supported on Fixed Cisco ISR Platforms

Technology Package License	860 Series	880 Series	890 Series
Advanced Security	Yes	Yes	—
Advanced IP Services	Yes	Yes	Yes

Table 3 lists the technology package licenses supported on Cisco ISR G2 platforms.

Table 3 Technology Package Licenses Supported on Modular Cisco ISR G2 Platforms

Technology Package License	1900 Series	2900 Series	3900 Series
ipbasek9	Yes	Yes	Yes
securityk9_npe ¹	Yes	Yes	Yes
securityk9 ²	Yes	Yes	Yes
datak9	Yes	Yes	Yes
uck9 (Unified Communications)	—	Yes	Yes

1. Supported only on the universalk9_npe-mz image.
2. Supported only on the universalk9-mz image.

Feature Licenses


Note

Enabling a feature license may require that a particular technology package license be installed and enabled on the router.

The following section lists the feature licenses available on the fixed and modular Cisco ISR platforms:

- [Table 4—Feature Licenses Supported on Fixed Cisco ISR Platforms, page 7](#)
- [Table 5—Feature Licenses Supported on Modular Cisco 1900, 2900, and 3900 Platforms, page 7](#)

[Table 4](#) lists the feature licenses available on the fixed Cisco ISR platforms.

Table 4 Feature Licenses Supported on Fixed Cisco ISR Platforms

Feature License	860 Series	880 Series	890 Series
IPS (Subscription)	—	Yes	Yes
SSL_VPN ¹ (Counted)	—	Yes	Yes

1. The SSL_VPN features are supported only on the universalk9-mz image.

[Table 5](#) lists the feature licenses available on Cisco ISR G2 platforms and the required technology package license.

Table 5 Feature Licenses Supported on Modular Cisco 1900, 2900, and 3900 Platforms

Feature License	Required Technology Package License	1900 Series	2900 Series	3900 Series
Memory License	—	Yes ¹	—	—
Gatekeeper	uck9 (Unified Communications)	—	Yes	Yes
SNA Switching (SNASw)	datak9	—	Yes	Yes
IPS (Subscription)	securityk9 or securityk9_npe	Yes	Yes	Yes
SSL_VPN ² (Counted)	securityk9	Yes	Yes	Yes
hseck9 ³	securityk9	—	Yes ⁴	Yes
CME-SRST	uck9 (Unified Communications)	—	Yes	Yes

1. Cisco model 1905 only.
2. The SSL_VPN features are supported only on the universalk9-mz image.
3. The hseck9 features are supported only on the universalk9-mz image.
4. Only 2921 and 2951 routers support the hseck9 feature license.

Evaluation and Right to Use Licenses

Table 6 lists the Evaluation and Right to Use licenses available on the Fixed Cisco ISRs and Cisco ISR G2 platforms.

Table 6 Evaluation and Right to Use Licenses

Technology Package or Feature	Evaluation License	Right to Use License
Technology Package		
Advanced Security	—	—
Advanced IP Services	Yes	Yes
ipbasek9	—	—
securityk9_npe ¹	Yes	Yes
securityk9 ²	Yes	Yes
datak9	Yes	Yes
uck9 (Unified Communications)	Yes	Yes
Feature Licenses		
Memory License	Yes	Yes
Gatekeeper	Yes	Yes
SNA Switching (SNASw)	Yes	Yes
IPS (Subscription)	Yes	Yes
SSL_VPN ³ (Counted)	Yes	Yes
hseck9 ⁴	—	—
CME-SRST	Yes	Yes

1. Supported only on the universalk9_npe-mz image.
2. Supported only on the universalk9-mz image.
3. The SSL_VPN features are supported only on the universalk9-mz image.
4. The hseck9 features are supported only on the universalk9-mz image.

Resource Allocation with securityk9 Technology Package License

Table 7 shows how resources such as bandwidth, number of tunnels, and TLS sessions for voice, IPSec, and SSLVPN are allocated with a securityk9 technology package license.

Table 7 Resource Allocation with securityk9 Technology Package License

Client	Tx Bandwidth ¹	Rx Bandwidth ²	Tunnels ³	TLS Sessions
Voice	Necessary bandwidth is reserved or released as needed.	Necessary bandwidth is reserved or released as needed.	Resources are reserved or released as needed.	Resources are reserved or released as needed. Maximum:1000

Table 7 Resource Allocation with securityk9 Technology Package License (continued)

Client	Tx Bandwidth ¹	Rx Bandwidth ²	Tunnels ³	TLS Sessions
IPSec	Dynamically uses available bandwidth.	Dynamically uses available bandwidth.	Resources are reserved or released as needed.	NA
SSLVPN	Dynamically uses available bandwidth.	Dynamically uses available bandwidth.	Resources are reserved or released as needed.	NA

1. The maximum bandwidth in the ingress is 85,000 Kbps.
2. The maximum bandwidth in the egress is 85,000 Kbps.
3. The maximum cumulative tunnels are 225.

To view the resource allocated on your router, use the **show platform cerm-information** command. The following output shows an example of the resource allocation for a securityk9 license:

```
Router#show platform cerm-information
Crypto Export Restrictions Manager(CERM) Information:
CERM functionality: ENABLED

-----
Resource                               Maximum Limit      Available
-----
Tx Bandwidth(in kbps)                  85000              85000
Rx Bandwidth(in kbps)                  85000              85000
Number of tunnels                       225                225
Number of TLS sessions                  1000               1000

Resource reservation information:
D - Dynamic
-----
Client           Tx Bandwidth      Rx Bandwidth      Tunnels      TLS Sessions
              (in kbps)        (in kbps)
-----
VOICE           0                 0                 0            0
IPSEC           D                 D                 0            N/A
SSLVPN          D                 D                 0            N/A

Statistics information:
Failed tunnels      : 0
Failed sessions    : 0
Failed tx bandwidth: 0
Failed rx bandwidth: 0
Failed encrypt pkts: 0
Failed decrypt pkts: 0
Failed encrypt pkt bytes: 0
Failed decrypt pkt bytes: 0
Passed encrypt pkts: 0
Passed decrypt pkts: 0
Passed encrypt pkt bytes: 0
Passed decrypt pkt bytes: 0
```

**Note**

An hsec9 feature license provides enhanced payload encryption functionality with increased VPN tunnel counts and secure voice sessions.

Platform Limitations

Table 8 shows the maximum number of licenses allowed for SSL VPN, CME, and SRST feature licenses.

Table 8 Maximum number of licenses for SSLVPN, CME, and SRST Feature Licenses

Platform	SSL VPN	CME	SRST
860,880	10	—	—
890	25	—	—
1941	75	—	—
2901	100	35	35
2911	100	50	50
2921	100	100	100
2951	150	150	150
3925	200	250	250
3945	200	350	350
3925E	1,500	400	400
3945E	1,500	450	450

Options for Getting and Managing Software Licenses

There are multiple options for getting and managing the software licenses on your router. Use one of the following options to get and manage software licenses on your router:

- [Cisco License Manager](#)—software application that lets you get, register, install, and manage software licenses on multiple devices on your network. See the “[Cisco License Manager](#)” section on [page 11](#) for details.
- [Cisco License Call Home](#)—lets you interact with the Cisco Product License Registration portal directly from your router to get, install, and manage your license. See the “[Cisco License Call Home](#)” section on [page 11](#) for details.
- [Cisco Product License Registration Portal](#)—lets you manually get and register individual software licenses through a registration portal. See the “[Cisco Product License Registration Portal](#)” section on [page 12](#) for details.
- [Cisco IOS CLI](#)—lets you install and manage licenses using the Cisco IOS command-line interface (CLI). See the “[Cisco IOS CLI](#)” section on [page 12](#) for details.
- [RTU Migration](#)—lets you migrate to an Existing or Lifetime RTU release and recommends steps you must perform before upgrading. See the “[RTU Migration](#)” section on [page 36](#) for details.
- [Simple Network Management Protocol](#)—lets you install, view, and clear software licenses using Simple Network Management Protocol (SNMP). See the “[Simple Network Management Protocol](#)” section on [page 42](#) for details.

Cisco License Manager

For a network-wide deployment, the Cisco License Manager can automate all license-related work flows by securely communicating with the licensing back-end fulfillment systems at Cisco.com and deploying the obtained licenses to managed devices on a network-wide basis. The application also keeps an inventory of deployed licenses and generates license reports.

Cisco License Manager is available at no cost and can be downloaded by registered Cisco.com users from <http://www.cisco.com/go/clm>.

For additional information on Cisco License Manager, see the *Cisco Software Activation Conceptual Overview* chapter in *Cisco IOS Software Activation Configuration Guide* and the documents at http://www.cisco.com/en/US/products/ps7138/tsd_products_support_series_home.html.

Cisco License Call Home

You can interact directly with the Cisco Product License Registration portal from your device by using the Cisco License Call Home interface. This interface is included with the Cisco Software Activation feature and described in the *Cisco Software Activation Conceptual Overview* and the *Configuring Cisco License Call Home* chapters in *Cisco IOS Software Activation Configuration Guide*.

The License Call Home feature works as a client or server model. Each transaction requires a separate connection to the Cisco licensing infrastructure. The License Call Home feature displays prompts for obtaining required information, converting that information into a defined data structure, and then connecting to the Cisco licensing back-end to interact with the Cisco licensing infrastructure. A request is initiated by a License Call Home EXEC command, and the response is provided by the Cisco licensing infrastructure.

This section contains the following topics:

- [Before You Begin, page 11](#)
- [Platform Support, page 11](#)
- [Installing a License Using License Call Home, page 12](#)

Before You Begin

Your router must have an Internet connection and use HTTPS to connect to the Cisco licensing infrastructure.

Platform Support

Only certain platforms support the Cisco License Call Home function and must run a Cisco IOS crypto K9 image.

For information about platform support, see the *Configuring Cisco License Call Home* chapter in *Cisco IOS Software Activation Configuration Guide*.

Installing a License Using License Call Home


Note

Purchase the software feature or package you want to install. You receive a product activation key (PAK) with your purchase.

To install a license using the License Call Home feature, follow these steps:

-
- Step 1** Use the **show license call-home pak EXEC** command to display the SKU list and features available for the PAK provided.
- Step 2** Use the **license call-home install pak** command to install a license by using the Cisco License Call Home function.
- a. Complete the license installation by entering **yes** when prompted to install the license and then entering the information requested.
-

Cisco Product License Registration Portal

Use the Cisco Product License Registration Portal at <http://www.cisco.com/go/license> to manually perform the following licensing tasks:

- Get a license
- Register for an RMA license
- Look-up a license

This section contains the following topic:

- [Getting a Permanent License Using Cisco License Portal, page 12](#)

Getting a Permanent License Using Cisco License Portal

To get a permanent license, perform the steps detailed in this section.

-
- Step 1** Enter the appropriate information at <http://www.cisco.com/go/license>.
- Step 2** Download the license file or receive the license file by e-mail.
- Step 3** To obtain additional licenses, repeat [Step 1](#) and [Step 2](#).
-

Cisco IOS CLI

Use the Cisco IOS CLI to install and manage the software licenses on your router. This section contains the following procedures:

- [Installing a Permanent License Using Cisco IOS CLI, page 13](#)
- [Activating CME-SRST Feature License, page 16](#)
- [Activating an Evaluation License, page 18](#)

- [Activating a Memory Evaluation License, page 21](#)
- [Activating an SNA Switching Feature License, page 23](#)
- [Activating the IPS Feature License, page 24](#)
- [Activating the SSL_VPN Feature License, page 25](#)
- [Activating the Gatekeeper Feature License, page 25](#)
- [Configuring the hseck9 Feature License, page 25](#)
- [Clearing an Active Permanent Technology Package License, page 26](#)
- [Configuring the EULA, page 31](#)
- [Verifying Licenses and Other Licensing Tasks, page 32](#)

Installing a Permanent License Using Cisco IOS CLI

To install a permanent license, perform the steps detailed in this section.



Note

You can install multiple licenses on the Cisco 3900 series, 2900 series, and 1900 series ISRs.

SUMMARY STEPS

1. **enable**
2. **license install** *stored-location-url*
3. **reload**

DETAILED STEPS

	Command or Action	Purpose
Step 1	enable Example: Router> enable	Enables privileged EXEC mode. <ul style="list-style-type: none"> • Enter your password if prompted.
Step 2	license install <i>stored-location-url</i> Example: Router)# license install flash0:uck9-C3900-SPE150_K9-FHH12250057.xml	Installs a license file.

	Command or Action	Purpose
Step 3	reload Example: Router# reload	(Optional) Reloads the router. A reload is not required if an evaluation license is active. A reload is required to activate a technology package license if an evaluation license is not active. To activate the SNAsw feature license, perform the steps detailed in the “ Activating an SNA Switching Feature License ” section on page 23. See the “ Activating the IPS Feature License ” section on page 24 for additional information on configuring the IPS feature license. See the “ Activating the SSL_VPN Feature License ” section on page 25 for additional information on configuring the SSL_VPN feature license. See the “ Configuring the hseck9 Feature License ” section on page 25 for additional information on configuring the hseck9 feature license. See the “ Activating a Memory Evaluation License ” section on page 21 for additional information on configuring a memory license.

Screencast

The following screencast shows how to install a license:



http://www.cisco.com/en/US/docs/routers/access/sw_activation/license_install_demo/license_install_demo.swf

Example

The following example shows how to install a license:

```

Router> enable
Router# license install flash0:uck9-C3900-SPE150_K9-FHH12250057.xml
Installing licenses from "uck9-C3900-SPE150_K9-FHH12250057.xml"
Installing...Feature:uck9...Successful:Supported
1/1 licenses were successfully installed
0/1 licenses were existing licenses
0/1 licenses were failed to install

upt-3945-1#
*Jul  7 17:24:57.391: %LICENSE-6-INSTALL: Feature uck9 1.0 was installed in this device.
UDI=C3900-SPE150/K9:FHH12250057; StoreIndex=15:Primary License Storage
*Jul  7 17:24:57.615: %IOS_LICENSE_IMAGE_APPLICATION-6-LICENSE_LEVEL: Module name = c3900
Next reboot level = uck9 and License = uck9
Router# reload
Router# show version
Cisco IOS Software, C3900 Software (C3900-UNIVERSALK9-M), Version 12.4(24.6)PI11k PI11
ENGINEERING WEEKLY BUILD, synced to V124_24_6_T9
Copyright (c) 1986-2009 by Cisco Systems, Inc.

```

Compiled Mon 15-Jun-09 15:27 by pallavik

ROM: System Bootstrap, Version 15.0(1r)M, RELEASE SOFTWARE (fc1)

upt-3945-1 uptime is 1 day, 3 hours, 53 minutes
 System returned to ROM by power-on
 System image file is "flash0:c3900-universalk9-mz.SSA.124-24.6.PI11k"

This product contains cryptographic features and is subject to United States and local country laws governing import, export, transfer and use. Delivery of Cisco cryptographic products does not imply third-party authority to import, export, distribute or use encryption. Importers, exporters, distributors and users are responsible for compliance with U.S. and local country laws. By using this product you agree to comply with applicable laws and regulations. If you are unable to comply with U.S. and local laws, return this product immediately.

A summary of U.S. laws governing Cisco cryptographic products may be found at:
<http://www.cisco.com/wwl/export/crypto/tool/stqrg.html>

If you require further assistance please contact us by sending email to export@cisco.com.

Cisco C3945 (revision 1.0) with 2025472K/71680K bytes of memory.
 Processor board ID FHH1226P01E
 3 Gigabit Ethernet interfaces
 4 Serial(sync/async) interfaces
 2 ISDN Basic Rate interfaces
 1 ATM interface
 25 terminal lines
 1 Virtual Private Network (VPN) Module
 DRAM configuration is 72 bits wide with parity enabled.
 255K bytes of non-volatile configuration memory.
 2000880K bytes of ATA System CompactFlash 0 (Read/Write)

License Info:

License UDI:

```

-----
Device#   PID                SN
-----
*0        C3900-SPE150/K9    FHH12250057

```

Technology Package License Information for Module:'c3900'

```

-----
Technology   Technology-package   Technology-package
              Current           Type                Next reboot
-----
ipbase       ipbasek9            Permanent          ipbasek9
security     None                None               None
uc           uck9                Permanent          uck9
data         None                None               None

```

Configuration register is 0x0

Activating CME-SRST Feature License

The ISR G2 comes with a 60-day evaluation license. After 60 days, the license changes to “right to use”. The customer is required to pay for the CME-SRST feature license which is valid for 12 years.


Note

CME-SRST RTU license is introduced in Cisco IOS release 15.1(3)T and higher.

Prerequisites

- UCK9 license
- ISR G2 already accepts UC CLIs
- CME-SRST feature must be configured

SUMMARY STEPS

1. **show license detail cme-srst**
2. **configure terminal**
3. **license accept end user agreement**
4. **exit**
5. **show license detail cme-srst**
6. **write mem**

DETAILED STEPS

	Command or Action	Purpose
Step 1	show license detail cme-srst Example: Router# show license detail cme-srst	Displays the available cme-srst license. EULA should be in NOT ACCEPTED state.
Step 2	configure terminal Example: Router# configure terminal	Enters global configuration mode.
Step 3	license accept end user agreement Example: Router(config)# license accept end user agreement	Configures a one-time acceptance of the EULA for cme-srst license. Accepts EULA by typing YES.
Step 4	exit Example: Router(config)# exit	Exits global configuration mode.

	Command or Action	Purpose
Step 5	show license detail cme-srst Example: Router# show license detail cme-srs	Displays the available cme-srst license. EULA should be in ACCEPTED state.
Step 6	write mem Example: Router# write mem	Saves configuration.

Example

```
c3945-mcqueen(config)#license accept end user agreement
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
BY ALL THE TERMS SET FORTH HEREIN.
```

Use of this product feature requires an additional license from Cisco, together with an additional payment. You may use this product feature on an evaluation basis, without payment to Cisco, for 60 days. Your use of the product, including during the 60 day evaluation period, is subject to the Cisco end user license agreement

http://www.cisco.com/en/US/docs/general/warranty/English/EU1KEN_.html
If you use the product feature beyond the 60 day evaluation period, you must submit the appropriate payment to Cisco for the license. After the 60 day evaluation period, your use of the product feature will be governed solely by the Cisco end user license agreement (link above), together with any supplements relating to such product feature. The above applies even if the evaluation license is not automatically terminated and you do not receive any notice of the expiration of the evaluation period. It is your responsibility to determine when the evaluation period is complete and you are required to make payment to Cisco for your use of the product feature beyond the evaluation period.

Your acceptance of this agreement for the software features on one product shall be deemed your acceptance with respect to all such software on all Cisco products you purchase which includes the same software. (The foregoing notwithstanding, you must purchase a license for each software feature you use past the 60 days evaluation period, so that if you enable a software feature on 1000 devices, you must purchase 1000 licenses for use past the 60 day evaluation period.)

Activation of the software command line interface will be evidence of your acceptance of this agreement.

```
ACCEPT? [yes/no]: yes
c3945-mcqueen(config)#
000436: *Jan 28 17:42:44.625: %LICENSE-6-EULA_ACCEPT_ALL: The Right to Use End User
License Agreement is accepted
```

```
c3945-mcqueen#show license detail cme-srst
Feature: cme-srst                      Period left: 621 weeks 5 days
Index: 1                               Feature: cme-srst          Version: 1.0
License Type: Evaluation
License State: Active, In Use
Evaluation total period: 208 weeks 2 days
Evaluation period left: 205 weeks 1 day
```

```

    Expiry date: Jan 04 2015 16:11:17
    License Count: 5000/20/0 (Active/In-use/Violation)
    License Priority: Low
    Store Index: 23
    Store Name: Evaluation License Storage
Index: 2      Feature: cme-srst                      Version: 1.0
    License Type: Evaluation
    License State: Inactive
        Evaluation total period: 208 weeks 2 days
        Evaluation period left: 208 weeks 2 days
    License Count: 5000/0/0 (Active/In-use/Violation)
    License Priority: Low
    Store Index: 22
    Store Name: Evaluation License Storage
Index: 3      Feature: cme-srst                      Version: 1.0
    License Type: Evaluation
    License State: Inactive
        Evaluation total period: 208 weeks 2 days
        Evaluation period left: 208 weeks 2 days
    License Count: 5000/0/0 (Active/In-use/Violation)
    License Priority: Low
    Store Index: 21
    Store Name: Evaluation License Storage

```

c3945-mcqueen#

Activating an Evaluation License



Note

Starting with Cisco IOS Releases 15.0(1)M6, 15.1(1)T4, 15.1(2)T4, 15.1(3)T2, and 15.1(4)M, Evaluation licenses are replaced with Evaluation Right To Use licenses. Evaluation Right to Use licenses automatically become Right to Use licenses after the initial evaluation period. Follow the steps detailed in this section to activate an Evaluation Right to Use license.

To activate an evaluation license in the Cisco 3900 series, 2900 series, and 1900 series routers, perform the steps detailed in this section. Evaluation licenses are activated using the **license boot module *module-name* technology-package *package-name*** command.

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **license boot module *module-name* technology-package *package-name***
4. **exit**
5. **reload**

DETAILED STEPS

	Command or Action	Purpose
Step 1	enable Example: Router>enable	Enables privileged EXEC mode. <ul style="list-style-type: none"> Enter your password if prompted.
Step 2	configure terminal Example: Router#configure terminal	Enters global configuration mode.
Step 3	license boot module <i>module-name</i> technology-package <i>package-name</i> Example: Router(config)#license boot module c3900 technology-package securityk9	Enables the evaluation license. Use the ? command with the module command to see the module name for your router, and with the technology-package command to see the software packages and features supported on your router.
Step 4	exit Example: Router(config)#exit	Exits global configuration mode.
Step 5	reload Example: Router#reload	Reloads the router. A reload is required to activate the software package.

Screencast

The following screencast shows how to activate an evaluation license:



http://www.cisco.com/en/US/docs/routers/access/sw_activation/eval_license_demo/eval_license_2_demo.swf

Example

The following example shows how to activate an evaluation license:

```
Router> enable
Router# configure terminal
Router(config)# license boot module c3900 technology-package data
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
BY ALL THE TERMS SET FORTH HEREIN.
```

```
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 reserves the right to terminate or shut down any such product feature 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 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**

% use 'write' command to make license boot config take effect on next boot

Router(config)#

*Jul 7 00:38:56.391: %IOS_LICENSE_IMAGE_APPLICATION-6-LICENSE_LEVEL: Module name = c3900
Next reboot level = securityk9 and License = securityk9

*Jul 7 00:38:56.987: %LICENSE-6-EULA_ACCEPTED: EULA for feature securityk9 1.0 has been accepted. UDI=C3900-SPE150/K9:FHH12250057; StoreIndex=1:Evaluation License Storage

Router(config)# **exit**

Router# **reload**

Router# **show version**

Cisco IOS Software, C3900 Software (C3900-UNIVERSALK9-M), Version 12.4(24.6)PI11k PI11
ENGINEERING WEEKLY BUILD, synced to V124_24_6_T9
Copyright (c) 1986-2009 by Cisco Systems, Inc.
Compiled Mon 15-Jun-09 15:27 by pallavik

ROM: System Bootstrap, Version 15.0(1r)M, RELEASE SOFTWARE (fc1)

Router uptime is 1 day, 3 hours, 53 minutes

System returned to ROM by power-on

System image file is "flash0:c3900-universalk9-mz.SSA.124-24.6.PI11k"

This product contains cryptographic features and is subject to United States and local country laws governing import, export, transfer and use. Delivery of Cisco cryptographic products does not imply third-party authority to import, export, distribute or use encryption. Importers, exporters, distributors and users are responsible for compliance with U.S. and local country laws. By using this product you agree to comply with applicable laws and regulations. If you are unable to comply with U.S. and local laws, return this product immediately.

A summary of U.S. laws governing Cisco cryptographic products may be found at:

<http://www.cisco.com/wwl/export/crypto/tool/stqrg.html>

If you require further assistance please contact us by sending email to export@cisco.com.

Cisco C3945 (revision 1.0) with 2025472K/71680K bytes of memory.

Processor board ID FHH1226P01E

3 Gigabit Ethernet interfaces

4 Serial(sync/async) interfaces

2 ISDN Basic Rate interfaces

1 ATM interface

25 terminal lines

1 Virtual Private Network (VPN) Module

DRAM configuration is 72 bits wide with parity enabled.

255K bytes of non-volatile configuration memory.

2000880K bytes of ATA System CompactFlash 0 (Read/Write)

License Info:

License UDI:

```
-----
Device#   PID           SN
-----
*0        C3900-SPE150/K9   FHH12250057
```

Technology Package License Information for Module:'c3900'

```
-----
Technology   Technology-package   Technology-package
              Current           Type                 Next reboot
-----
ipbase       ipbasek9            Permanent           ipbasek9
security    securityk9          Evaluation          securityk9
uc          ucK9                Permanent           uck9
data        None                None                None
```

Configuration register is 0x0

Activating a Memory Evaluation License

To activate a memory evaluation license in the Cisco 1905 router, perform the steps detailed in this section. Evaluation licenses are activated using the **license feature MEM-1900-256U512MB** command.

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **license feature** *MEM-1900-256U512MB*
4. **exit**
5. **reload**

DETAILED STEPS

	Command or Action	Purpose
Step 1	enable Example: Router>enable	Enables privileged EXEC mode. <ul style="list-style-type: none"> • Enter your password if prompted.
Step 2	configure terminal Example: Router#configure terminal	Enters global configuration mode.

	Command or Action	Purpose
Step 3	license feature <i>MEM-1900-256U512MB</i> Example: Router(config)#license feature MEM-1900-256U512MB	Enables the MEM-1900-256U512MB evaluation license. Use the ? command with the license feature command to see the memory evaluation license name available for your router.
Step 4	exit Example: Router(config)#exit	Exits global configuration mode.
Step 5	reload Example: Router#reload	Reloads the router. A reload is required to activate the memory license feature.

Screencast

The following screencast shows how to activate an evaluation license:



http://www.cisco.com/en/US/docs/routers/access/sw_activation/eval_license_demo/eval_license_2_demo.swf

Example

The following example shows how to activate an evaluation license:

```
Router(config)# license feature MEM-1900-256U512MB
                Feature Name:MEM-1900-256U512MB
```

```
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
BY ALL THE TERMS SET FORTH HEREIN.
```

```
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
reserves the right to terminate or shut down any such product feature
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
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
Router(config)#
```

```
*Nov 17 23:48:18.891: %XFR_EXT_MEMORY_LICENSING-6-LICENSE_NOT_ACTIVATED: License MEM-1900-256U512MB will take effect af reboot.
```

```
*Nov 17 23:48:19.779: %LICENSE-6-EULA_ACCEPTED: EULA for feature MEM-1900-256U512MB 1.0 has been accepted. UDI=CISCO1920B; StoreIndex=3:Evaluation License Storage
```

```
Router# license install tftp://223.255.254.254/FCW1345000B_20091118190946245.lic  
Installing licenses from "tftp://223.255.254.254/FCW1345000B_20091118190946245.lic"
```

```
Loading colbywen/FCW1345000B_20091118190946245.lic from 223.255.254.254 (via GigabitEthernet0/0): !
```

```
[OK - 1171 bytes]
```

```
Installing...Feature:MEM-1900-256U512MB...Successful:Supported
```

```
1/1 licenses were successfully installed
```

```
0/1 licenses were existing licenses
```

```
0/1 licenses were failed to install
```

```
Router#
```

```
*Nov 19 00:14:48.603: %XFR_EXT_MEMORY_LICENSING-6-LICENSE_NOT_ACTIVATED: License MEM-1900-256U512MB will take effect after the system reboot.
```

```
*Nov 19 00:14:48.607: %LICENSE-6-INSTALL: Feature MEM-1900-256U512MB 1.0 was installed in this device. UDI=CISCO1921/K9:FCW1345000B; StoreIndex=0:Primary License Storage
```

Activating an SNA Switching Feature License



Note

An SNASw feature license must be activated to configure SNASw.

To activate an evaluation or permanent license for the SNA Switching (SNASw) feature, perform the steps detailed in this section. The SNASw feature license is activated using the **license feature snasw** command.

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **license feature snasw**
4. **exit**
5. **show license feature**

DETAILED STEPS

	Command or Action	Purpose
Step 1	enable Example: Router>enable	Enables privileged EXEC mode. <ul style="list-style-type: none"> Enter your password if prompted.
Step 2	configure terminal Example: Router#configure terminal	Enters global configuration mode.
Step 3	license feature snasw Example: Router(config)#license feature snasw	Enables the SNASw feature license.
Step 4	exit Example: Router(config)#exit	Exits global configuration mode.
Step 5	show license feature Example: Router#show license feature	Verifies that the feature license has been activated.

Example

The following example shows how to activate an SNASw feature license:

```
Router> enable
Router# configure terminal
Router(config)# license feature snasw
Router(config)# exit
Router# show license feature
Feature name      Enforcement  Evaluation  Subscription  Enabled  RightToUse
ipbasek9         no          no          no            yes     no
securityk9      yes         yes         no            yes     yes
uck9             yes         yes         no            yes     yes
datak9          yes         yes         no            no      yes
gatekeeper      yes         yes         no            no      yes
LI               yes         no          no            no      no
SSL_VPN         yes         yes         no            no      yes
ios-ips-update  yes         yes         yes           no      yes
SNASw           yes         yes         no            yes     yes
```

Activating the IPS Feature License

See the [Cisco Services for IPS on IOS](#) document on Cisco.com for information on configuring an IPS feature license.

Activating the SSL_VPN Feature License

See the [SSL VPN](#) document on Cisco.com for information on configuring the SSLVPN feature license.

Activating the Gatekeeper Feature License

See the [Configuring Cisco Unified Border Element with Gatekeeper](#) document on Cisco.com for information on configuring the Gatekeeper feature license.

Configuring the hseck9 Feature License

Activating the hseck9 Feature License

No action is required to activate the hseck9 feature license. The hseck9 feature license is active after installation.

Clearing an Active hseck9 Feature License

To clear an active hseck9 feature license, perform the steps detailed in this section.

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **no license feature hseck9**
4. **exit**
5. **reload**
6. **license clear *feature-name***
7. **show license detail**

DETAILED STEPS

	Command or Action	Purpose
Step 1	enable Example: Router>enable	Enables privileged EXEC mode. <ul style="list-style-type: none"> • Enter your password if prompted.
Step 2	configure terminal Example: Router#configure terminal	Enters global configuration mode.
Step 3	no license feature hseck9 Example: Router(config)#no license feature hseck9	Disables the hseck9 feature license.

	Command or Action	Purpose
Step 4	exit Example: Router(config)#exit	Exits global configuration mode.
Step 5	reload Example: Router#reload	Reloads the image. A reload is required to disable the feature.
Step 6	license clear <i>feature-name</i> Example: Router#license clear hseck9	Clear the feature license from license storage. Note If you do not clear the hseck9 feature license after disabling it, the hseck9 feature license can be reactivated using the license feature hseck9 command. A reload is not required to activate an hseck9 feature license.
Step 7	show license detail Example: Router#show license detail	Verifies that the license has been cleared.

Example

The following example shows how to clear an active license:

```
Router> enable
Router# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)# no license feature hseck9
% use 'write' command to disable 'hseck9' license on next boot
Router(config)# exit
Router# reload

Router# license clear hseck9
```

Clearing an Active Permanent Technology Package License

To clear an active permanent license from the Cisco 3900 series, 2900 series, and 1900 series routers, perform the following tasks:

1. [Disable the Technology Package](#)
2. [Clear the License](#)

Disable the Technology Package

To disable a license, perform the steps detailed in this section.

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **license boot module *module-name* technology-package *package-name* disable**
4. **exit**
5. **reload**
6. **show version**

DETAILED STEPS

	Command or Action	Purpose
Step 1	enable Example: Router>enable	Enables privileged EXEC mode <ul style="list-style-type: none"> • Enter your password if prompted.
Step 2	configure terminal Example: Router#configure terminal	Enters global configuration mode.
Step 3	license boot module <i>module-name</i> technology-package <i>package-name</i> disable Example: Router(config)#license boot module c3900 technology-package uck9 disable	Disables the active license.
Step 4	exit Example: Router(config)#exit	Exits global configuration mode.
Step 5	reload Example: Router#reload	Reloads the image. A reload is required to make the software package inactive.
Step 6	show version Example: Router#show version	Verifies that the technology package has been disabled.

Clear the License

To clear the license, perform the steps detailed in this section.

SUMMARY STEPS

1. **license clear** *feature-name*
2. **configure terminal**
3. **no license boot module technology** *module-name* **technology-package** *package-name* **disable**
4. **exit**
5. **reload**
6. **show version**

DETAILED STEPS

	Command or Action	Purpose
Step 1	license clear <i>feature-name</i> Example: Router#license clear uck9	Clears the technology package license from license storage.
Step 2	configure terminal Example: Router#configure terminal	Enters global configuration mode.
Step 3	no license boot module <i>module-name</i> technology-package <i>package-name</i> disable Example: Router(config)#no license boot module c3900 technology uck9 disable	Clears the license boot module <i>module-name</i> technology-package <i>package-name</i> disable command used for disabling the active license.
Step 4	exit Example: Router(config)#exit	Exits global configuration mode.
Step 5	reload Example: Router#reload	Reloads the image.
Step 6	show version Example: Router#show version	Verifies that the license has been cleared.

Example

The following example shows how to clear an active license:

```
Router> enable
Router# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)# license boot module c3900 technology-package ?
   datak9      data technology
   securityk9  security technology
   uck9        unified communications technology

Router(config)# license boot module c3900 technology-package uck9 disable
% use 'write' command to make license boot config take effect on next boot

Router(config)# exit

Router# reload

Router# show version
Cisco IOS Software, C3900 Software (C3900-UNIVERSALK9-M), Version 12.4(24.6)PI11k PI11
ENGINEERING WEEKLY BUILD, synced to V124_24_6_T9
Copyright (c) 1986-2009 by Cisco Systems, Inc.
Compiled Mon 15-Jun-09 15:27 by pallavik

ROM: System Bootstrap, Version 15.0(1r)M, RELEASE SOFTWARE (fc1)

upt-3945-1 uptime is 1 day, 3 hours, 53 minutes
System returned to ROM by power-on
System image file is "flash0:c3900-universalk9-mz.SSA.124-24.6.PI11k"

This product contains cryptographic features and is subject to United
States and local country laws governing import, export, transfer and
use. Delivery of Cisco cryptographic products does not imply
third-party authority to import, export, distribute or use encryption.
Importers, exporters, distributors and users are responsible for
compliance with U.S. and local country laws. By using this product you
agree to comply with applicable laws and regulations. If you are unable
to comply with U.S. and local laws, return this product immediately.

A summary of U.S. laws governing Cisco cryptographic products may be found at:
http://www.cisco.com/wwl/export/crypto/tool/stqrg.html

If you require further assistance please contact us by sending email to
export@cisco.com.

Cisco C3945 (revision 1.0) with 2025472K/71680K bytes of memory.
Processor board ID FHH1226P01E
3 Gigabit Ethernet interfaces
4 Serial(sync/async) interfaces
2 ISDN Basic Rate interfaces
1 ATM interface
25 terminal lines
1 Virtual Private Network (VPN) Module
DRAM configuration is 72 bits wide with parity enabled.
255K bytes of non-volatile configuration memory.
2000880K bytes of ATA System CompactFlash 0 (Read/Write)

License Info:

License UDI:
```

```

-----
Device#      PID                SN
-----
*0           C3900-SPE150/K9   FHH12250057

```

Technology Package License Information for Module:'c3900'

```

-----
Technology   Technology-package   Technology-package
              Current         Type                 Next reboot
-----
ipbase       ipbasek9            Permanent           ipbasek9
security     securityk9          RightToUse          securityk9
uc           disable             Permanent           disable
data         None                None                None

```

Configuration register is 0x0

```

Router#
Router# license clear uck9
*Jul  7 00:34:23.691: %SYS-5-CONFIG_I: Configured from console by consoleclear uck9
Feature: uck9
  1  License Type: Permanent
     License State: Active, Not in Use
     License Addition: Exclusive
     License Count: Non-Counted
     Comment:
     Store Index: 15
     Store Name: Primary License Storage

Are you sure you want to clear? (yes/[no]): yes
upt-3945-1#
*Jul  7 00:34:31.223: %LICENSE-6-REMOVE: Feature uck9 1.0 was removed from this device.
UDI=C3900-SPE150/K9:FHH12250057; StoreIndex=15:Primary License Storage
Router#
Router# configure terminal
Router(config)# no license boot module c3900 technology uck9 disable
Router(config)# exit
Router# reload
Router# show version
Cisco IOS Software, C3900 Software (C3900-UNIVERSALK9-M), Version 12.4(24.6)PI11k PI11
ENGINEERING WEEKLY BUILD, synced to V124_24_6_T9
Copyright (c) 1986-2009 by Cisco Systems, Inc.
Compiled Mon 15-Jun-09 15:27 by pallavik

```

ROM: System Bootstrap, Version 15.0(1r)M, RELEASE SOFTWARE (fc1)

```

upt-3945-1 uptime is 1 minute
System returned to ROM by reload at 00:41:07 UTC Tue Jul 7 2009
System image file is "flash:c3900-universalk9-mz.SSA.124-24.6.PI11k"
Last reload reason: Reload Command

```

This product contains cryptographic features and is subject to United States and local country laws governing import, export, transfer and use. Delivery of Cisco cryptographic products does not imply third-party authority to import, export, distribute or use encryption. Importers, exporters, distributors and users are responsible for compliance with U.S. and local country laws. By using this product you agree to comply with applicable laws and regulations. If you are unable to comply with U.S. and local laws, return this product immediately.

A summary of U.S. laws governing Cisco cryptographic products may be found at:
<http://www.cisco.com/wwl/export/crypto/tool/stqrg.html>

If you require further assistance please contact us by sending email to
export@cisco.com.

Cisco C3945 (revision 1.0) with 2025472K/71680K bytes of memory.
 Processor board ID FHH1226P01E
 3 Gigabit Ethernet interfaces
 4 Serial(sync/async) interfaces
 2 ISDN Basic Rate interfaces
 25 terminal lines
 1 Virtual Private Network (VPN) Module
 DRAM configuration is 72 bits wide with parity enabled.
 255K bytes of non-volatile configuration memory.
 2000880K bytes of ATA System CompactFlash 0 (Read/Write)

License Info:

License UDI:

```
-----
Device#   PID                SN
-----
*0        C3900-SPE150/K9    FHH12250057
```

Technology Package License Information for Module:'c3900'

```
-----
Technology   Technology-package   Technology-package
              Current         Type                Next reboot
-----
ipbase       ipbasek9             Permanent           ipbasek9
security     securityk9           RightToUse          securityk9
uc           disable              None                None
data         None                  None                None
```

Configuration register is 0x0

Router#

Configuring the EULA

Use the **license accept end user agreement** command in global configuration mode to configure a one-time acceptance of the EULA for all Cisco IOS software packages and features. After the command is issued and the EULA accepted, the EULA is automatically applied to all Cisco IOS software licenses; the EULA is not displayed and the user is not prompted to accept the EULA.

The following example shows how to configure a one-time acceptance of the EULA:

```
Router(config)#license accept end user agreement
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
BY ALL THE TERMS SET FORTH HEREIN.
```

Use of this product feature requires an additional license from Cisco,
 together with an additional payment. You may use this product feature

on an evaluation basis, without payment to Cisco, for 60 days. Your use of the product, including during the 60 day evaluation period, is subject to the Cisco end user license agreement

http://www.cisco.com/en/US/docs/general/warranty/English/EU1KEN_.html

If you use the product feature beyond the 60 day evaluation period, you must submit the appropriate payment to Cisco for the license. After the 60 day evaluation period, your use of the product feature will be governed solely by the Cisco end user license agreement (link above), together with any supplements relating to such product feature. The above applies even if the evaluation license is not automatically terminated and you do not receive any notice of the expiration of the evaluation period. It is your responsibility to determine when the evaluation period is complete and you are required to make payment to Cisco for your use of the product feature beyond the evaluation period.

Your acceptance of this agreement for the software features on one product shall be deemed your acceptance with respect to all such software on all Cisco products you purchase which includes the same software. (The foregoing notwithstanding, you must purchase a license for each software feature you use past the 60 days evaluation period, so that if you enable a software feature on 1000 devices, you must purchase 1000 licenses for use past the 60 day evaluation period.)

Activation of the software command line interface will be evidence of your acceptance of this agreement.

```
ACCEPT? [yes/no]: yes
Router(config)#
*Oct 25 22:05:27.626: %LICENSE-6-EULA_ACCEPT_ALL: The Right to Use End User License
Agreement is accepted
Router(config)#
Router(config)# end
Router#
```

Verifying Licenses and Other Licensing Tasks

See the *Cisco IOS Software Activation Tasks and Commands* chapter of *Cisco IOS Software Activation Configuration Guide* for information about the following topics and more:

- Software activation tasks, like displaying and verifying licenses
- Software activation processes, like rehosting and RMA

Use the **show license**, **show license all**, and **show license detail** commands in privileged EXEC mode to see information about all Cisco IOS software licenses. The following example shows the output for the **show license** command:

```
Router# show license
Index 1 Feature: ipbasek9
Index 2 Feature: securityk9
      Period left: 8 weeks 4 days
      Period Used: 0 minute 0 second
      License Type: EvalRightToUse
      License State: Active, In Use
      License Count: Non-Counted
      License Priority: Low
Index 3 Feature: uck9
      Period left: Not Activated
      Period Used: 0 minute 0 second
      License Type: EvalRightToUse
      License State: Not in Use, EULA not accepted
```

```
License Count: Non-Counted
License Priority: None
Index 4 Feature: datak9
Period left: Not Activated
Period Used: 0 minute 0 second
License Type: EvalRightToUse
License State: Not in Use, EULA not accepted
License Count: Non-Counted
License Priority: None
Index 5 Feature: gatekeeper
Period left: Not Activated
Period Used: 0 minute 0 second
License Type: EvalRightToUse
License State: Not in Use, EULA not accepted
License Count: Non-Counted
License Priority: None
Index 6 Feature: LI
Index 7 Feature: SSL_VPN
Period left: Not Activated
Period Used: 0 minute 0 second
License Type: EvalRightToUse
License State: Not in Use, EULA not accepted
License Count: 0/0 (In-use/Violation)
License Priority: None
Index 8 Feature: ios-ips-update
Period left: Not Activated
Period Used: 0 minute 0 second
License Type: EvalRightToUse
License State: Not in Use, EULA not accepted
License Count: Non-Counted
License Priority: None
Index 9 Feature: SNASw
Period left: Not Activated
Period Used: 0 minute 0 second
License Type: EvalRightToUse
License State: Not in Use, EULA not accepted
License Count: Non-Counted
License Priority: None
Index 10 Feature: hseck9
Index 11 Feature: cme-srst
Period left: Not Activated
Period Used: 0 minute 0 second
License Type: EvalRightToUse
License State: Not in Use, EULA not accepted
License Count: 0/0 (In-use/Violation)
License Priority: None
Index 12 Feature: WAAS_Express
Period left: Not Activated
Period Used: 0 minute 0 second
License Type: EvalRightToUse
License State: Not in Use, EULA not accepted
License Count: Non-Counted
License Priority: None
Index 13 Feature: UCVideo
Period left: Not Activated
Period Used: 0 minute 0 second
License Type: EvalRightToUse
License State: Not in Use, EULA not accepted
License Count: Non-Counted
License Priority: None
```

Router#

The following sample output is from the **show license detail** command for the first 60 days (RTU evaluation period):

```
Router# show license detail datak9
Index: 1 Feature: datak9 Version: 1.0
License Type: EvalRightToUse
License State: Active, In Use
Evaluation total period: 8 weeks 0 days
Evaluation period left: 7 weeks 2 days
Period Used: 2 days
Expiry date: Dec 01 2014 06:31:36
Lock type: Non Node locked
Vendor info:
License Addition: Additive
License Generation version: 0x8100000
License Count: Non-Counted
License Priority: Low
Store Index: 8
Store Name: Built-in License Storage
```

The following sample output is from the **show license detail** command after the RTU evaluation period:

```
Router# show license detail datak9
Index: 1 Feature: datak9 Version: 1.0
License Type: RightToUse
License State: Active, In Use
License Count: Non-Counted
License Priority: Low
Store Index: 2
Store Name: Built-in License Storage
```

The following sample output is from the **show license detail** command:

```
Router# show license all
License Store: Primary License Storage
License Store: Built-In License Storage
StoreIndex: 0 Feature: security9k Version: 1.0
License Type: EvalRightToUse
License State: Active, In Use
Evaluation total period: 8 weeks 4 days
Evaluation period left: 8 weeks 3 days
Period Used: 19 minutes 25 seconds
Transition date: Jul 02 2011 18:36:01
Lock type: Non Node locked
Vendor info: <UDI><PID>NOTLOCKED</PID><SN>NOTLOCKED</SN></UDI><T>RTU</T>
License Addition: Additive
License Generation version: 0x8200000
License Count: Non-Counted
License Priority: Low
StoreIndex: 1 Feature: uck9 Version: 1.0
License Type: EvalRightToUse
License State: Not in Use, EULA not accepted
Evaluation total period: 8 weeks 4 days
Evaluation period left: 8 weeks 4 days
Period Used: 0 minute 0 second
Lock type: Non Node locked
Vendor info: <UDI><PID>NOTLOCKED</PID><SN>NOTLOCKED</SN></UDI><T>RTU</T>
License Addition: Additive
License Generation version: 0x8200000
License Count: Non-Counted
License Priority: None
StoreIndex: 2 Feature: datak9 Version: 1.0
License Type: EvalRightToUse
License State: Not in Use, EULA not accepted
```

```

        Evaluation total period: 8 weeks 4 days
        Evaluation period left: 8 weeks 4 days
        Period Used: 0 minute 0 second
    Lock type: Non Node locked
    Vendor info: <UDI><PID>NOTLOCKED</PID><SN>NOTLOCKED</SN></UDI><T>RTU</T>
    License Addition: Additive
    License Generation version: 0x8200000
    License Count: Non-Counted
    License Priority: None
StoreIndex: 3 Feature: gatekeeper Version: 1.0
    License Type: EvalRightToUse
    License State: Not in Use, EULA not accepted
        Evaluation total period: 8 weeks 4 days
        Evaluation period left: 8 weeks 4 days
        Period Used: 0 minute 0 second
    Lock type: Non Node locked
    Vendor info: <UDI><PID>NOTLOCKED</PID><SN>NOTLOCKED</SN></UDI><T>RTU</T>
    License Addition: Additive
    License Generation version: 0x8200000
    License Count: Non-Counted
    License Priority: None
StoreIndex: 4 Feature: SSL_VPN Version: 1.0
    License Type: EvalRightToUse
    License State: Not in Use, EULA not accepted
        Evaluation total period: 8 weeks 4 days
        Evaluation period left: 8 weeks 4 days
        Period Used: 0 minute 0 second
    Lock type: Non Node locked
    Vendor info: <UDI><PID>NOTLOCKED</PID><SN>NOTLOCKED</SN></UDI><T>RTU</T>
    License Addition: Additive
    License Generation version: 0x8200000
    License Count: 0/0 (In-use/Violation)
    License Priority: None
StoreIndex: 5 Feature: ios-ips-update Version: 1.0
    License Type: EvalRightToUse
    License State: Not in Use, EULA not accepted
        Evaluation total period: 8 weeks 4 days
        Evaluation period left: 8 weeks 4 days
        Period Used: 0 minute 0 second
    Lock type: Non Node locked
    Vendor info: <UDI><PID>NOTLOCKED</PID><SN>NOTLOCKED</SN></UDI><T>RTU</T>
    License Addition: Additive
    License Generation version: 0x8200000
    License Count: Non-Counted
    License Priority: None
StoreIndex: 6 Feature: SNASw Version: 1.0
    License Type: EvalRightToUse
    License State: Not in Use, EULA not accepted
        Evaluation total period: 8 weeks 4 days
        Evaluation period left: 8 weeks 4 days
        Period Used: 0 minute 0 second
    Lock type: Non Node locked
    Vendor info: <UDI><PID>NOTLOCKED</PID><SN>NOTLOCKED</SN></UDI><T>RTU</T>
    License Addition: Additive
    License Generation version: 0x8200000
    License Count: Non-Counted
    License Priority: None
StoreIndex: 7 Feature: cme-srst Version: 1.0
    License Type: EvalRightToUse
    License State: Not in Use, EULA not accepted
        Evaluation total period: 8 weeks 4 days
        Evaluation period left: 8 weeks 4 days
        Period Used: 0 minute 0 second
    Lock type: Non Node locked

```

```

Vendor info: <UDI><PID>NOTLOCKED</PID><SN>NOTLOCKED</SN></UDI><T>RTU</T>
License Addition: Additive
License Generation version: 0x8200000
License Count: 0/0 (In-use/Violation)
License Priority: None
StoreIndex: 8 Feature: WAAS_Express Version: 1.0
License Type: EvalRightToUse
License State: Not in Use, EULA not accepted
  Evaluation total period: 8 weeks 4 days
  Evaluation period left: 8 weeks 4 days
  Period Used: 0 minute 0 second
Lock type: Non Node locked
Vendor info: <UDI><PID>NOTLOCKED</PID><SN>NOTLOCKED</SN></UDI><T>RTU</T>
License Addition: Additive
License Generation version: 0x8200000
License Count: Non-Counted
License Priority: None
StoreIndex: 9 Feature: UCVideo Version: 1.0
License Type: EvalRightToUse
License State: Not in Use, EULA not accepted
  Evaluation total period: 8 weeks 4 days
  Evaluation period left: 8 weeks 4 days
  Period Used: 0 minute 0 second
Lock type: Non Node locked
Vendor info: <UDI><PID>NOTLOCKED</PID><SN>NOTLOCKED</SN></UDI><T>RTU</T>
License Addition: Additive
License Generation version: 0x8200000
License Count: Non-Counted
License Priority: None

```

RTU Migration

This section describes customer scenarios with regard to migrating to Existing or Lifetime RTU release and recommends actions to take before upgrading.

The initial version of RTU release (Existing RTU) contains built-in evaluation licenses valid for 12 years and Lifetime RTU licenses that are similar to permanent licenses, in that they are built into the IOS image and avoid the overhead of license installation.



Note

Permanent licenses are not affected by any IOS release upgrade.

The first course of action is to consider what release your router is running and then follow the recommended actions if any. This section contains the following topics:

- [RTU Releases, page 37](#)
- [Global EULA Acceptance, page 38](#)
- [RTU Migration Paths, page 39](#)
- [Lifetime RTU \(After Migration\), page 41](#)

RTU Releases

The IOS software releases to consider are categorized as follows:

- Preceding RTU
- Existing RTU
- Lifetime RTU

Preceding RTU

Preceding RTU releases are customers' running IOS releases with 60 days of evaluation licenses. These include the following releases:

- 15.0(1)M; 15.0(1)M1; 15.0(1)M2; 15.0(1)M3
- 15.1(1)T; 15.1(1)T1
- 15.1(2)T; 15.1(2)T1
- Any 12.4T release

Customers running these releases with evaluation licenses and planning to upgrade to Existing or Lifetime RTU releases are affected. They should follow the recommended actions specified under Preceding RTU to Existing/Lifetime migration paths.

Existing RTU

Initial RTU support was provided in the Existing RTU releases listed below:

- 15.0(1)M4; 15.0(1)M5
- 15.1(1)T2; 15.1(1)T3
- 15.1(2)T2; 15.1(2)T3
- 15.1(3)T; 15.1(3)T1
- 15.1(4)M

Such arrangement basically provided 12-year evaluation licenses and was intended to be a temporary solution until Lifetime RTU support was available. This temporary RTU solution provided immediate relief for customers facing licensing-related overhead.

If you are running Existing RTU releases and planning to upgrade to Lifetime RTU releases, please follow the recommended actions specified under Existing RTU to Lifetime RTU migration paths.

Lifetime RTU

A Lifetime RTU release license includes the following:

1. Initial evaluation period of 60 days
2. Transition to Lifetime RTU license without customer intervention

RTU transition warning/complete Syslogs/Traps are provided 10 days and 5 days before transition and on the actual day of transition.

Customers running the following Lifetime RTU releases are not impacted:

- 15.0(1)M6 or later
- 15.1(1)T4 or later
- 15.1(2)T4 or later

- 15.1(3)T2 or later
- 15.1(4)M1 or later
- 15.2(1)T or later

Global EULA Acceptance

Customers migrating to Lifetime RTU are required to accept the global end user license agreement with the Existing RTU release. This is because the Lifetime RTU keys have changed and EULA needs to be accepted again to ensure a smooth transition.

Please perform the following actions when required:

```
Router(config)# license accept end user agreement
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
BY ALL THE TERMS SET FORTH HEREIN.
```

Use of this product feature requires an additional license from Cisco, together with an additional payment. You may use this product feature on an evaluation basis, without payment to Cisco, for 60 days. Your use of the product, including during the 60 day evaluation period, is subject to the Cisco end user license agreement

http://www.cisco.com/en/US/docs/general/warranty/English/EULKEN_.html

If you use the product feature beyond the 60 day evaluation period, you must submit the appropriate payment to Cisco for the license. After the 60 day evaluation period, your use of the product feature will be governed solely by the Cisco end user license agreement (link above), together with any supplements relating to such product feature. The above applies even if the evaluation license is not automatically terminated and you do not receive any notice of the expiration of the evaluation period. It is your responsibility to determine when the evaluation period is complete and you are required to make payment to Cisco for your use of the product feature beyond the evaluation period.

Your acceptance of this agreement for the software features on one product shall be deemed your acceptance with respect to all such software on all Cisco products you purchase which includes the same software. (The foregoing notwithstanding, you must purchase a license for each software feature you use past the 60 days evaluation period, so that if you enable a software feature on 1000 devices, you must purchase 1000 licenses for use past the 60 day evaluation period.)

Activation of the software command line interface will be evidence of your acceptance of this agreement.

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

```
Router(config)# end
```

```
Jun 14 21:39:59.021: %LICENSE-6-EULA_ACCEPT_ALL: The Right to Use End User License
Agreement is accepted
```

```
Router# wr
```

```
Building configuration...
```

```
[OK]
```

RTU Migration Paths

There are basically two IOS release migration paths a typical customer must take to upgrade to Existing or Lifetime RTU release.

1. Preceding RTU Release —> Existing/Lifetime RTU Release
2. Existing RTU Release —> Lifetime RTU Release

Figure 2 shows the steps for migrating to Existing or Lifetime RTU.

Figure 2 Steps for RTU Migration

Preceding RTU	Existing RTU	Lifetime RTU
Permanent Licenses (No eval license in use)	No Further Action Required	No Further Action Required
Evaluation Licenses (At least one eval license in use)	See Preceding RTU -> Existing/Lifetime RTU Migration Path	See Preceding RTU -> Existing/Lifetime RTU Migration Path
	Permanent Licenses (No eval license in use)	No Further Action Required
	Evaluation/RTU Licenses (At least one eval/RTU license in use)	See Existing RTU -> Lifetime RTU Migration Path

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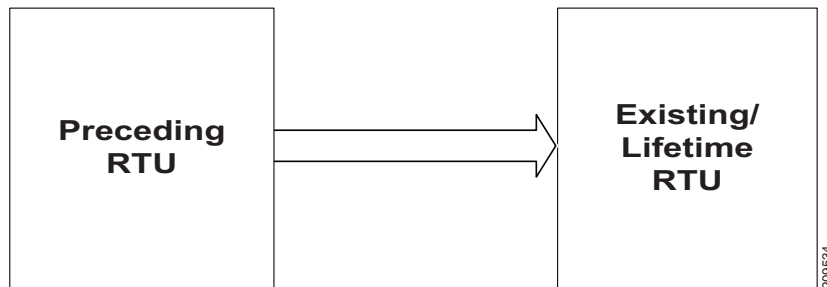
Preceding RTU —> Existing/Lifetime RTU Migration Path

This procedure covers customers running IOS Preceding RTU releases with evaluation licenses that have not expired and wishing to migrate to Existing or Lifetime RTU releases.

The Existing/Lifetime RTU license keys have changed and require re-acceptance of the end user license agreement. A migration performed without the recommended upgrade procedure results in a loss of functionality related to features that relied on the presence of Preceding RTU license.

Figure 3 shows the migration path from Preceding RTU to Existing/Lifetime RTU releases.

Figure 3 Preceding RTU to Existing/Lifetime RTU Migration



Before upgrading, perform the following steps:

-
- Step 1** On the Preceding RTU router, save the startup-config to a location of your choice—it could be a compact flash, tftp server, etc. Note: If any other configuration is required before upgrade, this must be completed and the configuration should be saved before proceeding with this step. The example below is for a tftp server.
- ```
Router# copy startup-config tftp://<tftp_server>/<user_id>/startup-config
```
- Step 2** Edit the startup-config and add the “license accept end user agreement” as shown below in bold right after the “license udi pid ...” entry.
- ```
license udi pid C3900-SPE250/K9 sn FHH1313001U
license accept end user agreement
```
- Step 3** Copy the startup-config back to the Preceding RTU router. The example below is for tftp a server.
- ```
Router# copy tftp://<tftp_server>/<user_id>/startup-config startup-config
```
- Step 4** Do *not* save the configuration.
- Step 5** Reload the router, without saving the configuration, with the upgrade release, either Existing or Lifetime RTU release. After reload, you can see that the configurations related to licenses are rejected.
- Step 6** Do *not* save the configuration.
- Step 7** Immediately reload again, without saving the configuration, with the same Existing or Lifetime RTU release. After reload, all the configurations are preserved.
- Step 8** Verify license-related configurations and feature functionality.
- 

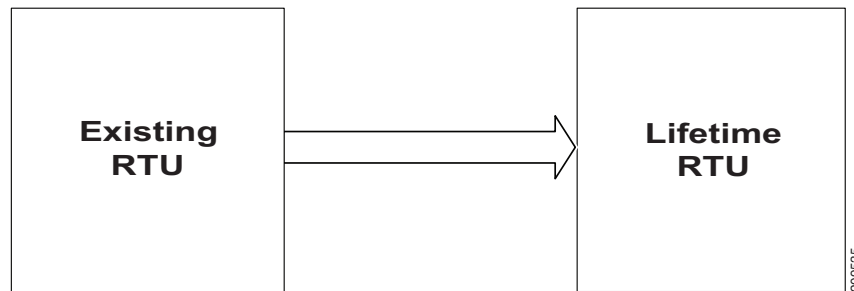
### Existing RTU —> Lifetime RTU Migration Path

This procedure covers customers running IOS Existing RTU releases with Eval/RTU licenses and wishing to upgrade to Lifetime RTU releases.

The Lifetime RTU license keys have changed and require re-acceptance of the end user license agreement. A migration performed without the recommended upgrade procedure results in a loss of functionality related to features that relied on the presence of Existing RTU release license.

Figure 4 shows the migration path from Preceding RTU to Existing/Lifetime RTU releases.

**Figure 4 Existing RTU to Lifetime RTU Migration**



Before upgrading, perform the following steps:



**Note**

If the global “license accept end user agreement” has already been performed on the Existing RTU release router, then Steps 1 and 2 can be skipped.

**Step 1** On the Existing RTU release router, configure the global end user license agreement:

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

**Step 2** Save the configuration.

```
Router# write
```

**Step 3** Upgrade to Lifetime RTU IOS Release.

## Lifetime RTU (After Migration)

Once you migrate to a Lifetime RTU release, as the license keys have changed, the RTU license restarts from time zero. This means that for the first 60 days, the Lifetime RTU license is considered to be in evaluation mode. The show CLI output displays the “EvalRightToUse” for the initial 60 days. An example of this output is shown below.

```
Router# show license
Index 4 Feature: datak9
 Period left: 8 weeks 4 days
 Period Used: 0 minute 0 second
 License Type: EvalRightToUse
 License State: Active, In Use
 License Count: Non-Counted
 License Priority: Low
```

After approximately 60 days, the Lifetime RTU license transitions to “RightToUse” without any further customer intervention. Syslogs and Traps are sent 10 days and 5 days before transition and on the actual day of transition to provide notice of pending/completion of license transition. After the transition, the show CLI output displays “RightToUse” for the License Type. An example of this output is shown below.

```
Router# show license
Index 4 Feature: datak9
 Period left: Life time
 License Type: RightToUse
 License State: Active, In Use
 License Count: Non-Counted
 License Priority: Low
```

## Simple Network Management Protocol

Software licenses can be installed and managed with network management systems using Simple Network Management Protocol (SNMP). For more information on using SNMP, see [Cisco IOS Software Activation Configuration Guide](http://www.cisco.com/en/US/docs/ios/csa/configuration/guide/15_0/csa_book.html) at [http://www.cisco.com/en/US/docs/ios/csa/configuration/guide/15\\_0/csa\\_book.html](http://www.cisco.com/en/US/docs/ios/csa/configuration/guide/15_0/csa_book.html).

## RMA License Transfer

To transfer a software license from a failed device to a new device, go to the Cisco licensing portal at <http://www.cisco.com/go/license>.



### Note

You need the UDI of the defective as well as the RMA router to initiate an RMA replacement license.



### Note

To transfer a software license from a Cisco 3925 or Cisco 3945 ISR, use the SN and PID from the service performance engine (SPE) and not the chassis.

## Restoring Configuration Files on RMA Replacement Routers

This section describes the steps for RMA replacement routers if restoration of configuration files is required. This applies to RMA replacement routers received with Lifetime RTU release installed.



### Note

An *RMA router* is the router that is sent back to the manufacturer for RMA, while an *RMA replacement router* is a new router from the manufacturer.

Restoring configuration files on RMA replacement routers is a two-part process.

- First Part: Restoring Licenses
- Second Part: Restoring Configurations

## First Part: Restoring Licenses

Perform the following steps to bring up your RMA replacement router with the required licenses:

- 
- Step 1** It is assumed that the startup-config was already saved, for example to a tftp server, compact flash, etc., before the router was sent for RMA. The example shown below is for a tftp server:
- ```
Router# copy startup-config tftp://<tftp_server>/<user_id>/startup-config
```
- Step 2** Edit the saved startup-config with any text editor of your choice. Add the “license accept end user agreement” as shown below right after the “license udi pid...” line.
- ```
license accept end user agreement
```
- Step 3** Copy the startup-config to your RMA replacement router as running config. This step is to bring back your configured licenses from the RMA router. Note that some configurations have been thrown out, although the objective here is to restore the licenses only. The example shown below is for a tftp server:
- ```
Router# copy tftp://<tftp_server>/<user_id>/startup-config running-config
```
- Step 4** Save the configuration.
- Step 5** Reload the RMA replacement router.
-

Second Part: Restoring Configurations

Perform the following steps to restore the configurations on your RMA replacement router:

-
- Step 1** Copy the startup-config to RMA replacement router as running config. This step will restore all the configurations. The example shown below is for a tftp server:
- ```
Router# copy tftp://<tftp_server>/<user_id>/startup-config running-config
```
- Step 2** Save the configuration.
- Step 3** Verify license-related configurations and feature functionality.
- 

For additional information on RMA license transfer, see the [Cisco Software Activation Conceptual Overview](#) chapter in [Cisco IOS Software Activation Configuration Guide](#).

## Software Activation on Modules

For information on the technology package required to support modules on the Cisco 2900 series and 3900 series ISR, see the [Module Support on Cisco Integrated Services Routers Generation 2](#) document.

For information on software activation and software applications supported on a module, see the documentation set for the module and the software application.

## Additional References

The following sections provide references related to the software activation feature.

### Related Documents and Links

| Related Topic                                               | Document Title                                                                                     |
|-------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| Cisco License Manager                                       | <a href="#">User Guide for Cisco License Manager</a>                                               |
|                                                             | <a href="#">Cisco License Manager Online Help</a>                                                  |
|                                                             | <a href="#">API Reference Guides for Cisco License Manager</a>                                     |
| Software Activation using Cisco IOS CLI and Cisco Call Home | <a href="#">Cisco IOS Software Activation Configuration Guide</a>                                  |
|                                                             | <a href="#">Cisco IOS Software Activation</a>                                                      |
| Feature Documents                                           | <a href="#">Cisco Services for IPS on IOS</a>                                                      |
|                                                             | <a href="#">SSL VPN</a>                                                                            |
|                                                             | <a href="#">Configuring Cisco Unified Border Element with Gatekeeper</a>                           |
|                                                             | <a href="#">Cisco Software Activation QA: Gatekeeper: A Cisco Unified Border Element Component</a> |
| Q&A and White paper                                         | <a href="#">Software Activation Q&amp;A for Cisco 860 and 880 Integrated Services Routers</a>      |
|                                                             | <a href="#">Cisco's Integrated Services Routers Generation Two Licensing and Packaging</a>         |
| Data Sheets                                                 | <a href="#">Cisco 860 Series Integrated Services Routers</a>                                       |
|                                                             | <a href="#">Cisco 880 Series Integrated Services Routers</a>                                       |
|                                                             | <a href="#">Cisco 890 Series Integrated Services Routers</a>                                       |
|                                                             | <a href="#">Cisco 1941 Series Integrated Services Routers</a>                                      |
|                                                             | <a href="#">Cisco 2900 Series Integrated Services Routers</a>                                      |
|                                                             | <a href="#">Cisco 3900 Series Integrated Services Routers</a>                                      |

### MIBs

| Description                                                                                                          | Link                                                                    |
|----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| Use Cisco MIB Locator to locate and download MIBs for selected platforms, Cisco software releases, and feature sets. | <a href="http://www.cisco.com/go/mibs">http://www.cisco.com/go/mibs</a> |

## Technical Assistance

| Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Link                                                                                   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| <p>The Cisco Support website provides extensive online resources, including documentation and tools for troubleshooting and resolving technical issues with Cisco products and technologies.</p> <p>To receive security and technical information about your products, you can subscribe to various services, such as the Product Alert Tool (accessed from Field Notices), the Cisco Technical Services Newsletter, and Really Simple Syndication (RSS) Feeds.</p> <p>Access to most tools on the Cisco Support website requires a Cisco.com user ID and password.</p> | <p><a href="http://www.cisco.com/techsupport">http://www.cisco.com/techsupport</a></p> |

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