



Software Activation for Cisco IOS on Cisco 1000 Series Connected Grid Routers

Last Updated: May 31, 2016

First Published: January 22, 2014

This document describes the activation process for Cisco IOS software on Cisco 1000 Series Connected Grid Routers (CGR1240 or CGR1120 or CGR 1000) and includes the following sections:

- [Information About Software Activation, page 1](#)
- [Prerequisites, page 4](#)
- [Activating and Configuring Licenses, page 5](#)
- [Verifying Licenses and Other Licensing Tasks, page 10](#)
- [Verifying Licenses and Other Licensing Tasks, page 10](#)
- [Related Documentation, page 11](#)
- [Feature History, page 11](#)

Information About Software Activation

This section includes the following topics:

- [Overview, page 2](#)
- [Software Packages and Features, page 3](#)



Overview

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 Configuration Professional (Cisco CP).

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 routers that use field-replaceable unit (FRU) motherboards, you use the motherboard PID and SN. All other platforms use the chassis PID and SN.

You can find the PID and SN 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>.

For details on viewing the router UDI, refer to [Verifying Licenses and Other Licensing Tasks](#).

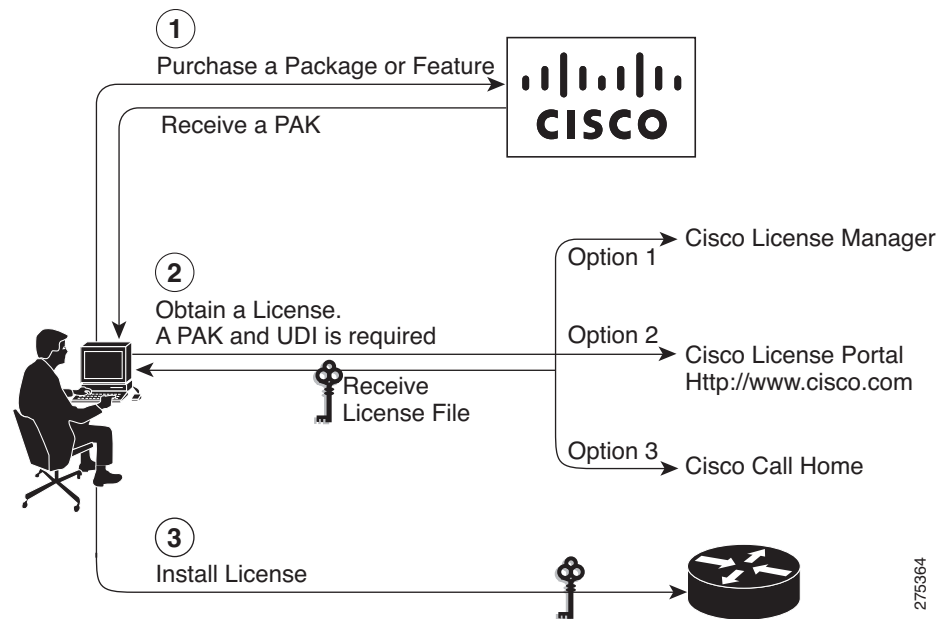
Right to Use License

Right to Use licenses are available on Cisco IOS Release 15.4(1)CG. 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**Note**

We do not license Option 3: Cisco Call Home on the CGR 1000 as shown in [Figure 1](#).

End User License Agreement

By accessing or using the Cisco products received with your CGR 1000, 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 CGR 1000 represents a superset of Cisco IOS simplified technology packages.

Each package represents a group of technology-specific features. When supported on your router, you can install multiple technology package licenses on the router.

You can enable and disable individual features by license keys.

Feature licenses can be subscription-based, uncounted, or count-based licenses.

**Note**

CGR 1000 does not currently support feature licenses.

**Tip**

Use the **show license** command to view the technology package licenses and feature licenses supported on your router. [Table 1](#) lists the software packages supported on the CGR 1000.

License Support

Table 1 lists the technology package licenses supported on CGR 1000s. In addition, it highlights whether the router supports evaluation and Right to Use licenses for that technology package.



Note

The CGR 1000 does not support any feature licenses.

Table 1 *Technology Package Licenses Supported on CGR 1000 Series Routers*

Technology Package License	Description	Evaluation License	Right to Use License
ipbasek9	For a list of features available in the license, use the Cisco Feature Navigator at: http://www.cisco.com/go/cfn	—	—
datak9		Yes	Yes
securityk9 ¹		Yes	Yes

1. Supported only on the universalk9-mz image, which can be extracted from the bundle image.

Prerequisites

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

The following prerequisites apply *only* if you are upgrading or installing a new Cisco IOS software license on a CGR 1000:

- Purchase the software package or feature that 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 at: <http://www.cisco.com/go/clm>.

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 supported on the CGR 1000 to get and manage software licenses on your router:

- [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 5 for details.
- [Activating and Configuring Licenses](#)—lets you install and manage licenses using the Cisco IOS command-line interface (CLI). See the “[Activating and Configuring Licenses](#)” section on page 5 for details.

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

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 . |
-

Activating and Configuring Licenses

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, page 5](#)
- [Activating an Evaluation Right To Use License, page 6](#)
- [Clearing an Active Permanent Technology Package License, page 8](#)
- [Clearing an Active Permanent Technology Package License, page 8](#)
- [Configuring the EULA, page 9](#)
- [Verifying Licenses and Other Licensing Tasks, page 10](#)

Installing a Permanent License

You can install additional licenses on a router in the field. These licenses would be licenses other than those ordered and preinstalled at shipment.



Note

You can install multiple supported licenses on the router.

BEFORE YOU BEGIN

Ensure you have met the [Prerequisites](#).

DETAILED STEPS

	Command	Purpose
Step 1	enable	Enables privileged EXEC mode. If prompted, enter your password.
Step 2	license install <i>stored-location-url</i>	Installs a license file.
Step 3	reload	(Optional) Reloads the router.

EXAMPLE

```

CGR1000-1 > enable
CGR1000-1# license install flash:securityk9-JAF1622ADQS.xml
CGR1000-1# reload
Installing licenses from "flash:securityk9-JAF1622ADQS.xml "
Installing...Feature:securityk9...Successful:Supported
1/1 licenses were successfully installed
0/1 licenses were existing licenses
0/1 licenses were failed to install

CGR1000-1#
Dec 1 19:57:55.144: %LICENSE-6-INSTALL: Feature securityk9 1.0 was installed in this
device. UDI=CGR1120/K9:JAF1622ADQS; StoreIndex=0:Primary License Storage
CGR1000-1#

```

Activating an Evaluation Right To Use License

You can activate an Evaluation Right to Use license on the router.



Note

Evaluation Right To Use licenses are preinstalled on CGR 1000. 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.

BEFORE YOU BEGIN

Ensure that you have met the [Prerequisites](#).

DETAILED STEPS

	Command	Purpose
Step 1	enable	Enables privileged EXEC mode. If prompted, enter your password.
Step 2	configure terminal	Enters global configuration mode.

	Command	Purpose
Step 3	license boot module <i>module-name</i> technology-package <i>package-name</i>	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	Exits global configuration mode.
Step 5	reload	Reloads the router. You must reload the router to activate the software package.

EXAMPLE

The following example shows how to activate an Evaluation Right To Use license:

```
Router> enable
Router# configure terminal
Router(config)# license boot module cgr1000 technology-package securityk9
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
```

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

```
Router(config)#
```

```
*Nov 7 00:38:56.391: %IOS_LICENSE_IMAGE_APPLICATION-6-LICENSE_LEVEL: Module name = cgr1000
Next reboot level = securityk9 and License = securityk9
*Nov 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
```

Clearing an Active Permanent Technology Package License

You can clear (remove) an active permanent license from the CGR 1000 by following these steps:

1. Disable the technology package.
2. Clear the license.

BEFORE YOU BEGIN

Ensure that you have met the [Prerequisites](#).

DETAILED STEPS

	Command	Purpose
Step 1	enable	Enables privileged EXEC mode. If prompted, enter your password.
Step 2	configure terminal	Enters global configuration mode.
Step 3	license boot module <i>module-name</i> technology-package <i>package-name</i> disable	Disables the active license.
Step 4	exit	Exits global configuration mode.
Step 5	reload	Reloads the image. A reload is required to make the software package inactive.
Step 6	show version	Confirms removal of the technology package from the running configuration.
Step 7	license clear <i>feature-name</i>	Clears the technology package license from license storage.
Step 8	configure terminal	Enters global configuration mode.
Step 9	no license boot module <i>module-name</i> technology-package <i>package-name</i> 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 10	exit	Exits global configuration mode.
Step 11	reload	Reloads the image
Step 12	show version	Verifies that you removed the license from storage.

EXAMPLE

This example shows how to remove a technology package and then clear that license from the router software.


```

Router> enable
Router# configure terminal
Router(config)# license boot module cgr1000 technology-package securityk9 disable
Router(config)# exit
Router# reload
Router# show version
Router# license clear securityk9
Router# configure terminal
Router(config)# no license boot module cgr1000 technology securityk9 disable
Router(config)# exit
Router# reload
Router# show version

```

Configuring the EULA

To activate a Right to Use license, you must activate the End User License Agreement (EULA) by entering the **license accept end user agreement** command to provide a one-time acceptance of the EULA for all Cisco IOS software packages and features. During the activation process, the EULA will not display and you will not be prompted to accept the EULA.

BEFORE YOU BEGIN

Ensure that you have met the [Prerequisites](#).

DETAILED STEPS

	Command	Purpose
Step 1	enable	Enables privileged EXEC mode. If prompted, enter your password.
Step 2	configure terminal	Enters global configuration mode.
Step 3	license accept end user agreement	Accepts the End User License Agreement (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

To display details on licenses, enter any or all of the following commands.

Command	Purpose
show license [detail all]	Displays information about all Cisco IOS licenses active on the router. Enter command at the privileged EXEC mode.
show license udi	Displays the UDI for the router, which includes the product ID (PID) and the serial number (SN).
show version	Displays the current version information for software (including licenses) and hardware on the router.

Verifying Licenses and Other Licensing Tasks

To display details on licenses, enter any or all of the following commands.

Command	Purpose
show license [detail all]	Displays information about all Cisco IOS licenses active on the router. Enter command at the privileged EXEC mode.
show license udi	Displays the UDI for the router, which includes the product ID (PID) and the serial number (SN).
show version	Displays the current version information for software (including licenses) and hardware on the router.

Related Documentation

Related Topic	Document Title
Cisco IOS Software Configuration Guides for Cisco 1000 Series Connected Grid Routers	www.cisco.com/go/cgr1000-docs
Cisco 1240 Connected Grid Router Hardware Installation Guide	
Cisco 1120 Connected Grid Router Hardware Installation Guide	

Feature History

Feature	Hardware	Release
Cisco IOS datak9 license	CGR 1000	Cisco IOS Release 15.4(1)CG
Cisco IOS ipbasek9 license		
Cisco IOS securityk9		

Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, using the Cisco Bug Search Tool (BST), submitting a service request, and gathering additional information, see [What's New in Cisco Product Documentation](#).

To receive new and revised Cisco technical content directly to your desktop, you can subscribe to the [What's New in Cisco Product Documentation RSS feed](#). The RSS feeds are a free service.

This document is to be used in conjunction with the documents listed in the <Xref_Color>"Related Documentation" section.

THE SPECIFICATIONS AND INFORMATION REGARDING THE PRODUCTS IN THIS MANUAL ARE SUBJECT TO CHANGE WITHOUT NOTICE. ALL STATEMENTS, INFORMATION, AND RECOMMENDATIONS IN THIS MANUAL ARE BELIEVED TO BE ACCURATE BUT ARE PRESENTED WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. USERS MUST TAKE FULL RESPONSIBILITY FOR THEIR APPLICATION OF ANY PRODUCTS.

THE SOFTWARE LICENSE AND LIMITED WARRANTY FOR THE ACCOMPANYING PRODUCT ARE SET FORTH IN THE INFORMATION PACKET THAT SHIPPED WITH THE PRODUCT AND ARE INCORPORATED HEREIN BY THIS REFERENCE. IF YOU ARE UNABLE TO LOCATE THE SOFTWARE LICENSE OR LIMITED WARRANTY, CONTACT YOUR CISCO REPRESENTATIVE FOR A COPY.

The Cisco implementation of TCP header compression is an adaptation of a program developed by the University of California, Berkeley (UCB) as part of UCB's public domain version of the UNIX operating system. All rights reserved. Copyright © 1981, Regents of the University of California.

NOTWITHSTANDING ANY OTHER WARRANTY HEREIN, ALL DOCUMENT FILES AND SOFTWARE OF THESE SUPPLIERS ARE PROVIDED "AS IS" WITH ALL FAULTS. CISCO AND THE ABOVE-NAMED SUPPLIERS DISCLAIM ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, THOSE OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OR ARISING FROM A COURSE OF DEALING, USAGE, OR TRADE PRACTICE.

IN NO EVENT SHALL CISCO OR ITS SUPPLIERS BE LIABLE FOR ANY INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES, INCLUDING, WITHOUT LIMITATION, LOST PROFITS OR LOSS OR DAMAGE TO DATA ARISING OUT OF THE USE OR INABILITY TO USE THIS MANUAL, EVEN IF CISCO OR ITS SUPPLIERS HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Any Internet Protocol (IP) addresses and phone numbers used in this document are not intended to be actual addresses and phone numbers. Any examples, command display output, network topology diagrams, and other figures included in the document are shown for illustrative purposes only. Any use of actual IP addresses or phone numbers in illustrative content is unintentional and coincidental.

All printed copies and duplicate soft copies are considered un-Controlled copies and the original on-line version should be referred to for latest version.

Cisco has more than 200 offices worldwide. Addresses, phone numbers, and fax numbers are listed on the Cisco website at www.cisco.com/go/offices.

No combinations are authorized or intended under this document.

© 2014-2016 Cisco Systems, Inc. All rights reserved.