



# Software Activation on Cisco Integrated Services Routers

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**First Published: June 2, 2008**

This document describes the software activation process for Cisco software licensing on Cisco integrated services routers (ISRs). Cisco routers support Cisco IOS software entitlement and enforcement on various platforms. This document supports the following products:

- Cisco 890 Series ISR
- Cisco 880 Series ISR
- Cisco 860 Series ISR



**Note**

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For software activation information for the Cisco Unified Communications 500 Series for Small Business, see the *Cisco Software Licensing Information for Cisco Unified Communications 500 Series for Small Business* document.

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## Finding Feature Information in This Module

Your Cisco IOS software release may not support all of the features documented in this module. To reach links to specific feature documentation in this module and to see a list of the releases in which each feature is supported, see the “[Additional References](#)” section on page 5.

## 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.

## Contents

This document contains the following topics:

- [Prerequisites for Software Activation on Cisco ISRs, page 2](#)
- [Restrictions for Software Activation on Cisco ISRs, page 2](#)



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- [Information About Software Activation on Cisco ISRs, page 3](#)
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## Prerequisites for Software Activation on Cisco ISRs

The following prerequisites apply to using the software activation feature on Cisco ISRs:

- Understand the licenses available for your router. For information about the license types available, refer to the *Cisco Software Activation Conceptual Overview*.
- Use the **show version** command to display the license level you have on your router.
- Download and install Cisco Licensing Manager (CLM) if you are installing several licenses for your router. Cisco License Manager is available at no cost and can be downloaded by registered Cisco.com users from <http://www.cisco.com/cgi-bin/tablebuild.pl/clm10>.
- Register for a Cisco.com password if you do not have one already.

## Restrictions for Software Activation on Cisco ISRs

This section discusses the restrictions that apply to the Cisco 800 series ISRs and contains the following topics:

- [Cisco IOS Software Releases Supported, page 2](#)
- [Cisco Licensing Manager, page 2](#)

## Cisco IOS Software Releases Supported

- Cisco 800 series ISRs running Cisco IOS Release images earlier than Cisco IOS Release 12.4(15)XZ do not support software activation.
- Cisco 800 series ISRs running Cisco IOS Release 12.4(15)XZ or later support either the noncryptographic image or the cryptographic image.

## Cisco Licensing Manager

- Cisco License Manager (CLM) only runs on a server with Windows XP.
- Firewalls are not allowed between the Cisco License Manager server and a GUI client.
- For device notification to be successful, ensure that the Cisco License Manager hostname exists in the Domain Name Service (DNS) or that the device has the Cisco License Manager hostname and IP address configured to receive messages.

- Configure your router to allow Cisco License Manager to manage software licenses by using the **ip http server**, **license agent listener**, and **ip http authentication** privileged EXEC commands.



**Note** For a summary of these commands, see the [Getting Started with Cisco License Manager on Windows XP](#) guide. For detailed instructions about enabling Cisco License Agent on your device, see the Cisco License Agent documentation.

- Make sure that there is a valid connection from the Cisco License Manager server to Cisco.com.



**Note** For additional requirements and guidelines, see the [Getting Started with Cisco License Manager for Windows XP](#) guide on Cisco.com.

## Information About Software Activation on Cisco ISRs

When you order a new router, you specify the software image and feature set that you want. They are installed on your router before you receive it, so you do not need to purchase a software license. The router stores the software license file on the flash memory. This section provides information you should be familiar with when working with Cisco software licenses.

For more information not found in this section or document, see the following documents:

- [Cisco Software Activation Conceptual Overview](#)
- [Cisco Software Activation Tasks and Commands](#)

## Selecting Feature Sets

Feature sets are bundled and offered as a software license that is then installed on hardware platforms. [Table 1](#) lists the software licenses supported on Cisco ISR platforms. See the [Cisco 860 Series Integrated Services Routers](#) data sheet and the [Cisco 880 Series Integrated Services](#) data sheet for a list of features available with the different feature sets.



**Note** The Advanced Security feature set for the Cisco 800 Series ISR platforms do not include the same features that are available in the Advanced Security software for the modular Cisco 800 Series ISR platforms. For a full list of the features available for the Cisco 800 Series ISR platforms, see the [Cisco 860 Series Integrated Services Routers](#) data sheet and the [Cisco 880 Series Integrated Services](#) data sheet.

[Table 1](#) lists the feature sets and software licenses that are available by platform.

**Table 1** Platforms and Feature Sets

Platforms	Feature Sets	Software License Type
Cisco 890 Series ISR	Advanced IP Services	Image-based
Cisco 880 Series ISR	Advanced Security	Image-based
	Advanced IP Services	
Cisco 860 Series ISR	Advanced Security	Image-based

## Purchasing and Upgrading Software Licenses

There are two methods for purchasing or updating software licenses:

- [Cisco License Manager](#)—lets you purchase, install, and register multiple software licenses through Cisco.com. See the “[Cisco License Manager](#)” section on page 4 for details.
- [Cisco Product License Registration Portal](#)—lets you purchase individual software licenses through a registration portal. See the “[Cisco Product License Registration Portal](#)” section on page 4 for details.

### Cisco License Manager

Cisco License Manager is a software application that assists you in obtaining licenses from Cisco, deploying the licenses to the Cisco devices in your network, discovering the devices, and managing and viewing your inventory of licenses and devices. Cisco License Manager is used with Cisco devices that require Cisco licensing. New or upgraded Cisco devices should be registered, and a product authorization key (PAK) must be provided to obtain licenses from Cisco.

You can use the Cisco License Manager application programming interface (API) to write programs for your specific licensing tasks. Cisco License Manager runs on Windows XP and uses Java to connect to Cisco.com and to Cisco devices. For information about downloading the free Cisco License Manager Client and Server applications or ordering the optional Cisco License Manager software development kit (SDK), go to this URL:

<http://www.cisco.com/go/clm>

Cisco License Manager supports devices running either the cryptographic universal software image or the noncryptographic universal software images. If your router runs the cryptographic software image, your router needs a device certificate to communicate with the Cisco License Manager server. For more information, see these documents on Cisco.com:

[http://www.cisco.com/en/US/products/ps7138/tsd\\_products\\_support\\_series\\_home.html](http://www.cisco.com/en/US/products/ps7138/tsd_products_support_series_home.html)

### Cisco Product License Registration Portal

Use the Cisco Product License Registration Portal to purchase a software license.



#### Note

You must have a CCO password to access the URLs in the following procedure.

Follow these steps to obtain a PAK and a software license for a specific feature set:

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- Step 1** Decide which feature set you want and purchase the appropriate PAK at this URL:
- [http://www.cisco.com/en/US/products/hw/routers/ps380/products\\_data\\_sheets\\_list.html](http://www.cisco.com/en/US/products/hw/routers/ps380/products_data_sheets_list.html)
- Step 2** Use that PAK to register the license at this URL: [www.cisco.com/go/license](http://www.cisco.com/go/license).
- Step 3** The software license is e-mailed to you.
- Step 4** Repeat Step 1 to Step 3 to obtain more licenses.
- Step 5** Refer to the *Cisco Software Activation Tasks and Commands* feature module for detailed information on how to install licenses on your router.
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## Using Cisco Product License Registration Portal and Cisco IOS CLI

If you obtain a software license from the Cisco Product License Registration Portal, you can use the command-line interface (CLI) commands to perform these tasks:

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- Step 1** Install a software license and reset the router. The router enables the feature set.
- Step 2** Manage the software licenses on the router.
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**Note** For information about the **license** and **show license** commands, see the [Cisco Software Activation Tasks and Commands](#) feature module.

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## Upgrading a Software License

Upgrading a software license on your router simply means that you will purchase a software license for a feature set that you currently do not have access to and that you can then install the license onto your router. To upgrade a software license on your existing router, see the [License Install Using License Call Home](#) or the [Installing a License](#) section of the [Cisco Software Activation](#) feature module.



**Note** For detailed descriptions of the tasks and commands used to activate software using the Cisco Software Activation, refer to the [Cisco Software Activation Conceptual Overview](#) and [Cisco Software Activation](#) documents.

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## Additional References

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

### Related Documents

Related Topic	Document Title
Cisco License Manager	<a href="#">User Guide for Cisco License Manger</a>
	<a href="#">Cisco License Manager Online Help</a>
	<a href="#">API Reference Guides for Cisco License Manager</a>
Software Activation	<a href="#">Cisco Software Activation Conceptual Overview</a>
	<a href="#">Cisco Software Activation Tasks and Commands</a>
ARTG Licensing	<a href="#">Cisco 860 Series Integrated Services Routers</a> data sheet
	<a href="#">Cisco 880 Series Integrated Services</a> data sheet

## 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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