Release Notes for Catalyst 6500 Series and Cisco 7600 Series Internet Router CEF720 Module ROMMON Software

Current Release: 12.2(18r)S1—May 28, 2004

This publication describes how to upgrade the ROMMON on your Catalyst 6500 series or Cisco 7600 series Internet Router CEF720 modules.

The following CEF720 modules are supported by this ROMMON image:

- WS-X6748-GE-TX
- WS-6724-SFP
- WS-X6748-SFP
- WS-X6704-10GE

Tip You should consider the 12.2(18r)S1 ROMMON software upgrade if you need the bug fixes documented in the "Caveats" section on page 3.

With this procedure, you can upgrade the ROMMON image similar to the way that you upgrade the Cisco IOS operating system software.

ROMMON software release 12.2(18r)S1 is supported in Catalyst 6500 series and Cisco 7600 series systems that are running Cisco IOS software on the Supervisor Engine 720.

Contents

This publication consists of these sections:

System Software Requirements

The CEF720 module ROMMON software upgrade requires Cisco IOS Release 12.1(17d)SXB on the Supervisor Engine and MSFC.

Software Images

Table 1 lists the software releases for the dCEF module ROMMON software.

Table 1   Upgradable Modules

CEF720 Module ROMMON Software Releases	Filenames
12.2(18r)S1 upgradable module ROMMON image	c2lc-rm2.srec.122-18r.S1

ROMMON Image Overview

The CEF720 module ROMMON consists of two modules:

- A resident module that is not changed during the upgrade procedure.
- An upgradable module that is updated during the upgrade procedure. This is the only module that you will download from Cisco.com.

New and Changed Information

CEF720 module ROMMON software release 12.1(18r)S1 contains bug fixes; no new feature support is added.

Caveats

The following section contains resolved caveat information:

Resolved Caveats in ROMMON Software Release 12.1(18r)S1

• ROMMON is not able to boot a compressed offline diagnostics image from bootflash. This problem is resolved in ROMMON software release 12.2(18r)S1. (CSCdy65817)

• After an RPR+ switchover, some modules to not come back online. This problem is resolved in ROMMON software release 12.2(18r)S1. (CSCeb23191)

Upgrading the CEF720 Module ROMMON

Note Before performing this procedure, you must download the new ROMMON image from Cisco.com. The download procedure is the same as downloading Catalyst software images.

To upgrade the ROMMON version on your CEF720 module, perform these steps (in this example, the module is in slot 4):

Step 1 Check the active ROMMON information:

```
Router# show rom-monitor slot 4

    Region F1:APPROVED, preferred
    Region F2:INVALID
    Currently running ROMMON from F1 region
Router#
```

The display indicates that the active ROMMON is running in region1.

Step 2 Program the new ROMMON image to the Flash device on the module (in this example, the image is stored in the route processor bootflash):

```
Router# upgrade rom-monitor slot 4 file bootflash:c2lc-rm2.srec.122-18r.S1
Copying bootflash:c2lc-rm2.srec.122-18r.S1 onto bootflash of dfc#4 CCCCCCCCC
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
Router#
19:40:08: DFC4: ROMMON image upgrade in progress
19:40:08: DFC4: Erasing flash
19:40:11: DFC4: Programming flash
19:40:13: DFC4: Verifying new image
19:40:13: DFC4: ROMMON image upgrade complete
 The card must be reset for this to take effect

Router#
```

Step 3 Check the new active ROMMON information:

```
Router# show rom-monitor slot 4
    Region F1:APPROVED
    Region F2:FIRST_RUN, preferred
```

```
      Currently running ROMMON from F1 region
Router#
```

Step 4   Reload the module for the change to take effect:

```
Router# hw-module module 4 reset
Proceed with reload of module? [confirm]
% reset issued for module 4

<output truncated>
```

Step 5   After the system comes up, check the ROMMON information again:

```
Router# show rom-monitor slot 4
   Region F1:APPROVED
   Region F2:APPROVED, preferred
   Currently running ROMMON from F2 region
Router#
```

The "Region2" field should show "APPROVED, preferred." The ROMMON stored in the Region2 is now the active ROMMON.

Storing More Than One ROMMON Image

The procedure in this section is optional and should be used only if you have multiple versions of the upgraded ROMMON image stored on the module. These procedures describe how to select a particular ROMMON image for booting and how to disqualify a particular ROMMON region.

Selecting a Stored ROMMON Image

There are three regions (including the Gold region) where versions of the ROMMON image can be stored. You can use the **upgrade rom-monitor slot preference** command to switch between regions.

The ROMMON software upgrade feature allows you to have two upgraded ROMMON images (one in region F1, the second in region F2) in addition to the "Gold" ROMMON stored on the one-time programmable (OTP) EPROM section of the ROMMON. Use the **upgrade rom-monitor slot preference** command to select which ROMMON will be the preferred ROMMON the next time the system is booted. You can change the preference as often as you like. The changes do not take effect until you reset the system.

To select a particular ROMMON image, perform these steps:

Step 1   Change the ROMMON preference:

```
Router# show rom-monitor slot 4
Region F1:FIRST_RUN
Region F2:FIRST_RUN, preferred
Currently running ROMMON from F2 region
Router# upgrade rom-monitor slot 4 preference region1

You are about to mark F1 region of DFC ROMMON in slot 4 as the boot preference region,
proceed[n]? y
Router#
```

Step 2   Reload the module for the change to take effect:

```
Router# hw-module module 4 reset
Proceed with reload of module? [confirm]
% reset issued for module 4

<output truncated>
```

Step 3   Verify the change:

```
Router# show rom-monitor slot 4
Region F1:APPROVED, preferred
Region F2:APPROVED
Currently running ROMMON from F1 region
```

You can also disqualify a specific region of ROMMON and use the other region or go back to using the "Gold" ROMMON stored in the OTP EPROM section by using the **upgrade rom-monitor slot invalidate** command.

To disqualify a specific ROMMON region, perform these steps:

Step 1   Disqualify a specific ROMMON region:

```
Router# show rom-monitor slot 4
Region F1:FIRST_RUN
Region F2:FIRST_RUN, preferred
Currently running ROMMON from F2 region

Router# upgrade rom-monitor slot 4 invalidate region2

You are about to mark F2 region of DFC ROMMON in slot 4 as an invalid region,
proceed[n]? y
Router#
```

Step 2   Reload the DFC for the change to take effect:

```
Router# hw-module module 4 reset
Proceed with reload? [confirm]

<output truncated>
```

Step 3   Verify the change:

```
Router# show rom-monitor slot 4
Region F1:FIRST_RUN
Region F2:INVALID
Currently running ROMMON from S (Gold) region
```

Additional Documentation

The following Cisco IOS software documents are available for the Catalyst 6500 series switches:

- *Catalyst 6500 Series Switch Cisco IOS Software Configuration Guide*
- *Catalyst 6500 Series Switch Cisco IOS Command Reference*
- *Catalyst 6500 Series Switch Cisco IOS System Message Guide*

The following Cisco IOS software documents are available for the Cisco 7600 series routers:

- *Cisco 7600 Series Switch Cisco IOS Software Configuration Guide*
- *Cisco 7600 Series Switch Cisco IOS Command Reference*
- *Cisco 7600 Series Switch Cisco IOS System Message Guide*

Obtaining Documentation

Cisco documentation and additional literature are available on Cisco.com. Cisco also provides several ways to obtain technical assistance and other technical resources. These sections explain how to obtain technical information from Cisco Systems.

Cisco.com

You can access the most current Cisco documentation on the World Wide Web at this URL:

http://www.cisco.com/univercd/home/home.htm

You can access the Cisco website at this URL:

http://www.cisco.com

International Cisco websites can be accessed from this URL:

http://www.cisco.com/public/countries_languages.shtml

Ordering Documentation

You can find instructions for ordering documentation at this URL:

http://www.cisco.com/univercd/cc/td/doc/es_inpck/pdi.htm

You can order Cisco documentation in these ways:

- Registered Cisco.com users (Cisco direct customers) can order Cisco product documentation from the Ordering tool:

    http://www.cisco.com/en/US/partner/ordering/index.shtml

- Nonregistered Cisco.com users can order documentation through a local account representative by calling Cisco Systems Corporate Headquarters (California, USA) at 408 526-7208 or, elsewhere in North America, by calling 800 553-NETS (6387).

Documentation Feedback

You can submit e-mail comments about technical documentation to bug-doc@cisco.com.

You can submit comments by using the response card (if present) behind the front cover of your document or by writing to the following address:

Cisco Systems
Attn: Customer Document Ordering
170 West Tasman Drive
San Jose, CA 95134-9883

We appreciate your comments.

Obtaining Technical Assistance

For all customers, partners, resellers, and distributors who hold valid Cisco service contracts, the Cisco Technical Assistance Center (TAC) provides 24-hour-a-day, award-winning technical support services, online and over the phone. Cisco.com features the Cisco TAC website as an online starting point for technical assistance. If you do not hold a valid Cisco service contract, please contact your reseller.

Cisco TAC Website

The Cisco TAC website provides online documents and tools for troubleshooting and resolving technical issues with Cisco products and technologies. The Cisco TAC website is available 24 hours a day, 365 days a year. The Cisco TAC website is located at this URL:

http://www.cisco.com/tac

Accessing all the tools on the Cisco TAC website requires a Cisco.com user ID and password. If you have a valid service contract but do not have a login ID or password, register at this URL:

http://tools.cisco.com/RPF/register/register.do

Opening a TAC Case

Using the online TAC Case Open Tool is the fastest way to open P3 and P4 cases. (P3 and P4 cases are those in which your network is minimally impaired or for which you require product information.) After you describe your situation, the TAC Case Open Tool automatically recommends resources for an immediate solution. If your issue is not resolved using the recommended resources, your case will be assigned to a Cisco TAC engineer. The online TAC Case Open Tool is located at this URL:

http://www.cisco.com/tac/caseopen

For P1 or P2 cases (P1 and P2 cases are those in which your production network is down or severely degraded) or if you do not have Internet access, contact Cisco TAC by telephone. Cisco TAC engineers are assigned immediately to P1 and P2 cases to help keep your business operations running smoothly.

To open a case by telephone, use one of the following numbers:

Asia-Pacific: +61 2 8446 7411 (Australia: 1 800 805 227)
EMEA: +32 2 704 55 55
USA: 1 800 553-2447

For a complete listing of Cisco TAC contacts, go to this URL:

http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml

TAC Case Priority Definitions

To ensure that all cases are reported in a standard format, Cisco has established case priority definitions.

Priority 1 (P1)—Your network is "down" or there is a critical impact to your business operations. You and Cisco will commit all necessary resources around the clock to resolve the situation.

Priority 2 (P2)—Operation of an existing network is severely degraded, or significant aspects of your business operation are negatively affected by inadequate performance of Cisco products. You and Cisco will commit full-time resources during normal business hours to resolve the situation.

Priority 3 (P3)—Operational performance of your network is impaired, but most business operations remain functional. You and Cisco will commit resources during normal business hours to restore service to satisfactory levels.

Priority 4 (P4)—You require information or assistance with Cisco product capabilities, installation, or configuration. There is little or no effect on your business operations.

Obtaining Additional Publications and Information

Information about Cisco products, technologies, and network solutions is available from various online and printed sources.

- Cisco Marketplace provides a variety of Cisco books, reference guides, and logo merchandise. Go to this URL to visit the company store:

    http://www.cisco.com/go/marketplace/

- The Cisco *Product Catalog* describes the networking products offered by Cisco Systems, as well as ordering and customer support services. Access the Cisco Product Catalog at this URL:

    http://cisco.com/univercd/cc/td/doc/pcat/

- *Cisco Press* publishes a wide range of general networking, training and certification titles. Both new and experienced users will benefit from these publications. For current Cisco Press titles and other information, go to Cisco Press online at this URL:

    http://www.ciscopress.com

- *Packet* magazine is the Cisco quarterly publication that provides the latest networking trends, technology breakthroughs, and Cisco products and solutions to help industry professionals get the most from their networking investment. Included are networking deployment and troubleshooting tips, configuration examples, customer case studies, tutorials and training, certification information, and links to numerous in-depth online resources. You can access Packet magazine at this URL:

    http://www.cisco.com/packet

- *iQ Magazine* is the Cisco bimonthly publication that delivers the latest information about Internet business strategies for executives. You can access iQ Magazine at this URL:

    http://www.cisco.com/go/iqmagazine

- *Internet Protocol Journal* is a quarterly journal published by Cisco Systems for engineering professionals involved in designing, developing, and operating public and private internets and intranets. You can access the Internet Protocol Journal at this URL:

    http://www.cisco.com/ipj

- Training—Cisco offers world-class networking training. Current offerings in network training are listed at this URL:

    http://www.cisco.com/en/US/learning/index.html

This document is to be used in conjunction with the *Catalyst 6500 Series Cisco IOS Software Configuration Guide* , the *Catalyst 6500 Series Cisco IOS Command Referenc,* the *Cisco 7600 Series Router Cisco IOS Software Configuration Guide* and the *Cisco 7600 Series Router Cisco IOS Command Reference e* publications.