



# Release Notes for Catalyst 6500 Series Switch and Cisco 7600 Series Router MSFC3 ROMMON Software

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**Current Release:** 12.2(17r)S4—May 16, 2005

**Past Release:** 12.2(17r)S2, 12.2(14r)S9, 12.2(14r)S8

This publication describes how to upgrade the ROMMON on your Catalyst 6500 series switch or Cisco 7600 series router MSFC3.



## Note

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In systems running Catalyst operating system release 8.1(1) on the Supervisor Engine 720 and Cisco IOS software on the MSFC3, the minimum required ROMMON release is 12.2(14r)S8. Due to CSCeb69141, the recommended ROMMON release for systems running IOS on both the Supervisor Engine 720 and the MSFC3 is 12.2(14r)S9. To determine if you need to upgrade the ROMMON on your system, enter the **show version** command to view the ROMMON version currently running on your system.

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

MSFC3 ROMMON software release 12.2(14r)S8 and later releases are supported in Catalyst 6500 and Cisco 7600 series systems that are running either of the following:

- Catalyst operating system on the Supervisor Engine 720 and Cisco IOS software on the MSFC3
- or
- Cisco IOS software on the Supervisor Engine 720 and on the MSFC3



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## System Software Requirements

The MSFC3 ROMMON software upgrade requires the following minimum system software releases:

- MSFC3 ROMMON software releases 12.2(14r)S1 or later.
- For Catalyst 6500 and Cisco 7600 series systems running Cisco IOS software on the Supervisor Engine 720 and on the MSFC3, Cisco IOS Release 12.2 (14)SX is the first software release that supports a software upgrade of the MSFC3 ROMMON.
- For Catalyst 6500 series and Cisco 7600 series systems running Catalyst operating system on the Supervisor Engine 720 and Cisco IOS software on the MSFC3, Cisco IOS Release 12.2(14)SX2 is the first software release that supports a software upgrade of the MSFC3 ROMMON.

## Software Images

Table 1 lists the available software releases for the MSFC3 ROMMON software.

**Table 1 Upgradable Modules**

MSFC3 ROMMON Software Release	Filename
12.2(17r)S4 upgradable module ROMMON image	c6msfc3_rm2.srec.122-17r.S4
12.2(17r)S2 upgradable module ROMMON image	c6msfc3_rm2.srec.122-17r.S2
12.2(14r)S9 upgradable module ROMMON image	c6msfc3_rm2.srec.122-14r.S9

# ROMMON Image Overview

The MSFC3 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

The following sections list new features:

- [MSFC3 ROMMON Release 12.2\(17r\)S4, page 3](#)
- [MSFC3 ROMMON Release 12.2\(17r\)S2, page 3](#)
- [MSFC3 ROMMON Release 12.2\(14r\)S9, page 3](#)
- [MSFC3 ROMMON Release 12.2\(14r\)S8, page 3](#)

## MSFC3 ROMMON Release 12.2(17r)S4

**Note**

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Before being able to use the bootdisk feature, the bootdisk in the MSFC3 module must be formatted by a Cisco IOS 12.2(18)SXF or later software release.

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MSFC3 ROMMON release 12.2(17r)S4 supports bootdisk.

## MSFC3 ROMMON Release 12.2(17r)S2

There are no new features in ROMMON release 12.2(17r)S2.

## MSFC3 ROMMON Release 12.2(14r)S9

There are no new features in ROMMON release 12.2(14r)S9.

## MSFC3 ROMMON Release 12.2(14r)S8

MSFC3 ROMMON release 12.2(14r)S8 adds support for systems running Catalyst operating system on the Supervisor Engine 720 and Cisco IOS software on the MSFC3.

## Caveats

The following sections contain caveat information:

- [MSFC3 ROMMON Release 12.2\(17r\)S4, page 4](#)

- [MSFC3 ROMMON Release 12.2\(17r\)S4, page 4](#)
- [MSFC3 ROMMON Release 12.2\(14r\)S9, page 4](#)
- [MSFC3 ROMMON Release 12.2\(14r\)S8, page 5](#)

## MSFC3 ROMMON Release 12.2(17r)S4

- [Resolved Caveats in MSFC3 ROMMON Software Release 12.2\(17r\)S4, page 4](#)

### Resolved Caveats in MSFC3 ROMMON Software Release 12.2(17r)S4

- MSFC3 ROMMON does not have adequate way to handle watchdog and timeout exceptions. This problem is resolved in ROMMON software release 12.2(17r)S4. (CSCeg87313)
- The MSFC3 console speed cannot be set above 9600 baud. This problem is resolved in ROMMON software release 12.2(17r)S4. (CSCeg47689)
- TFTP is terminated and the MSFC3 goes to boot mode if theCNTL-C command is entered while loading the Supervisor Engine image from sup-disk0:. This problem is resolved in ROMMON software release 12.2(17r)S4. (CSCin83211)

## MSFC3 ROMMON Release 12.2(17r)S2

- [Resolved Caveats in MSFC3 ROMMON Software Release 12.2\(17r\)S2, page 4](#)

### Resolved Caveats in MSFC3 ROMMON Software Release 12.2(17r)S2

- A configuration register value is programmed incorrectly on an ASIC. This problem is resolved in ROMMON software release 12.2(17r)S2. (CSCed58891)
- The wrong timer counter register is programmed at bootup. This problem is resolved in ROMMON software release 12.2(17r)S2. (CSCed10938)

## MSFC3 ROMMON Release 12.2(14r)S9

- [Resolved Caveats in MSFC3 ROMMON Software Release 12.2\(14r\)S9, page 4](#)

### Resolved Caveats in MSFC3 ROMMON Software Release 12.2(14r)S9

- In a system running Cisco IOS on the Supervisor Engine 720 and MSFC2, booting the system with the 12.2(14r)S8 ROMMON image causes the redundant Supervisor Engine 720 to reset. This problem is resolved in ROMMON release 12.2(14r)S9. (CSCeb69141)
- If the system attempts to boot the ROMMON image from F2 as the active region, the ROMMON image boots, but the display says "FIRST\_RUN." The Display output should say APPROVED. This problem is resolved in ROMMON release 12.2(14r)S9. (CSCea78564)

## MSFC3 ROMMON Release 12.2(14r)S8

- [Resolved Caveats in MSFC3 ROMMON Software Release 12.2\(14r\)S8, page 5](#)

### Resolved Caveats in MSFC3 ROMMON Software Release 12.2(14r)S8

- TFTP boot is not supported by the MSFC3 ROMMON. This problem is resolved in ROMMON release 12.2(14r)S8. (CSCea68829)
- CPU cache parity detection is not supported by the MSFC3 ROMMON. This problem is resolved in ROMMON release 12.2(14r)S8. (CSCea80665)
- The MSFC3 ROMMON does not support systems running Catalyst operating system on the Supervisor Engine 720 and Cisco IOS software on the MSFC3. This problem is resolved in ROMMON release 12.2(14r)S8. (CSCdz49649)

## Upgrading the MSFC3 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 operating system images.

## Upgrade Procedure for Systems Running Cisco IOS on the Supervisor Engine and MSFC

To upgrade the ROMMON version on your MSFC3 in a system that is running Cisco IOS software on the Supervisor Engine 720 and on the MSFC3, perform these steps:

**Step 1** Check the active ROMMON information:

```
Router# show rom-monitor slot 1 rp

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

The display indicates that the active ROMMON is running in region 1.

**Step 2** Program the new ROMMON image to the Flash device on the MSFC3:

```
Router# upgrade rom-monitor slot 1 rp file
tftp://dirt/tftpboot-users/c6msfc3_rm2.srec.122-14r.S9
ROMMON image upgrade in progress
Erasing flash
Programming flash
Verifying new image
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 1 rp
```

```

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

```

**Step 4** Reload the system:

```

Router# reload
Proceed with reload? [confirm]

```

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

```

Router# show rom-monitor slot 1 rp
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.

## Upgrade Procedure for Systems Running Catalyst OS on the Supervisor Engine and Cisco IOS on the MSFC

To determine the existing ROMMON version running on your system, enter the **show version** command. To support a system running Catalyst OS 8.1(1) and later on the Supervisor Engine 720, the minimum required ROMMON version is 12.2(14r)S8.

To upgrade the ROMMON version on your MSFC3 in a system that is running Catalyst operating system on the Supervisor Engine 720 and Cisco IOS software on the MSFC3, perform these steps:

**Step 1** Copy the ROMMON image to the MSFC3 bootflash:

```

Router# upgrade rom-monitor slot rp_slot_number rp file
bootflash:c6msfc3-rm2.srec.122-14r.S9
00:01:17:ROMMON image upgrade in progress
00:01:17:Erasing flash
00:01:19:Programming flash
Router#
00:01:21:Verifying new image
00:01:21:ROMMON image upgrade complete

```

**Step 2** Before reloading, specify the configuration register:

```

Router(config)# config-register 0x2102

```

**Step 3** Confirm the configuration register setting:

```

Router# show boot
BOOT variable does not exist
CONFIG_FILE variable does not exist
BOOTLDR variable does not exist
Configuration register is 0x2102

```



**Note** If the configuration register is not set correctly, the MSFC3 will revert to ROMMON after the reload.

**Step 4** Reload the system:

```
Router# reload
Proceed with reload? [confirm]
```

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

```
Router# show rom-monitor slot rp_slot_number rp
Region F1:APPROVED, preferred
rommon upgrade
Region F2:INVALID
Currently running ROMMON from F1 region
```

---

# 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 MSFC3. 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 on the MSFC3

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 write-protected section of the ROMMON Flash. 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 stored on the MSFC3, perform these steps:

---

### Step 1 Change the ROMMON preference:

```
Router# show rom-monitor slot 1 rp
Region F1:FIRST_RUN
Region F2:FIRST_RUN, preferred
Currently running ROMMON from F2 region
Router# upgrade rom-monitor slot 1 rp preference region1
```

```
You are about to mark F1 region of RP ROMMON in slot 1 as the boot preference region,
proceed[n]? y
Router#
```

### Step 2 Reload the MSFC3 for the change to take effect:

```
Router# reload
Proceed with reload? [confirm]
```

<output truncated>

### Step 3 Verify the change:

```
Router# show rom-monitor slot 1 rp
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 write-protected 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 1 rp
Region F1:FIRST_RUN
Region F2:FIRST_RUN, preferred
Currently running ROMMON from F2 region
```

```
Router# upgrade rom-monitor slot 1 rp invalidate region2
```

```
You are about to mark F2 region of RP ROMMON in slot 1 as an invalid region,
proceed[n]? y
Router#
```

**Step 2** Reload the MSFC3 for the change to take effect:

```
Router# reload
Proceed with reload? [confirm]
```

```
<output truncated>
```

**Step 3** Verify the change:

```
Router# show rom-monitor slot 1 rp
Region F1:FIRST_RUN
Region F2:INVALID
Currently running ROMMON from S (Gold) region
```

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## Additional Documentation

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

- *Catalyst 6500 Series Switch Installation Guide*
- *Catalyst 6500 Series Switch Module Installation Guide*
- *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*
- *Cisco 7600 Series Router Cisco IOS Software Configuration Guide*
- *Cisco 7600 Series Router Cisco IOS Command Reference*

## 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](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\\_inpk/pdi.htm](http://www.cisco.com/univercd/cc/td/doc/es_inpk/pdi.htm)

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

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