ROMMON Release Notes for WS-X4013+10GE and WS-X4516-10GE

Current Release: 12.2(31r)SGA7—September 7, 2011

Previous Releases
12.2(31r)SGA4, 12.2(31r)SGA3

This publication describes how to download the new ROMMON image from Cisco.com and then upgrade the ROMMON on WS-X4013+10GE (Supervisor Engine II+10GE).

This document consists of these sections:

ROMMON Image Overview

This is a new ROMMON software image, which can be installed with the ROMMON upgrade procedure outlined below. This ROMMON image can be installed on WS-X4013+10GE, WS-X4013+, WS-X4013+TS, WS-X4015, WS-X4516, WS-X4516-10GE, WS-C4948, WS-C4948-10GE.

Guidelines for Upgrading the ROMMON

> ⚠️
>
> **Caution** If your supervisor engine is shipped with a newer version of ROMMON then do not downgrade! The new ROMMON will have board settings based on a hardware revision of components, and old settings will not work.

Americas Headquarters:
Cisco Systems, Inc., 170 West Tasman Drive, San Jose, CA 95134-1706 USA

Upgrading the Supervisor Engine ROMMON

⚠ **Caution** To avoid actions that might make your system unable to boot, read this entire section before starting the upgrade.

✎ **Note** The examples in this section use the programmable read-only memory (PROM) upgrade version 12.2(31r)SGA7 and Cisco IOS Release 12.2(50)SG. For other releases, replace the ROMMON release and Cisco IOS software release with the appropriate releases and filenames. This document describes the procedure for a single supervisor system. You must perform the process on each supervisor in a dual supervisor system.

Follow this procedure to upgrade your supervisor engine ROMMON:

Step 1 Directly connect a serial cable to the console port of the supervisor engine.

Step 2 Download the cat4500-e-ios-promupgrade-122_31_SGA7 program from Cisco.com, and place it on a TFTP server in a directory that is accessible from the switch that is upgraded.

The cat4500-e-ios-promupgrade-122_31_SGA7 programs are available on Cisco.com at the same location from which you download Catalyst 4500 system images and this release note.

Step 3 Use the **dir bootflash:** command to ensure that sufficient space exists in Flash memory to store the PROM upgrade image. If you are using a CompactFlash card, replace **bootflash:** with **slot0:**

If more space is needed, delete an existing file and run the **squeeze** command to reclaim the space.

Step 4 Download the cat4500-e-ios-promupgrade-122_31r_SGA7 program into Flash memory using the **copy tftp** command.

The following example shows how to download the PROM upgrade image cat4500-e-ios-promupgrade-122_31r_SGA7 from the remote host 172.20.58.78 to bootflash:

```
Switch# copy tftp: bootflash:
Address or name of remote host [172.20.58.78]?
Source filename [cat4500-e-ios-promupgrade-122_31r_SGA7]?
Destination filename [cat4500-e-ios-promupgrade-122_31r_SGA7]?
Accessing tftp://172.20.58.78/cat4500-e-ios-promupgrade-122_31r_SGA7...
Loading cat4500-e-ios-promupgrade-122_31r_SGA7 from 172.20.58.78 (via
FastEthernet2/1):!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
!!!!!!!!!!
[OK - 2404172 bytes]

2404172 bytes copied in 28.536 secs (84250 bytes/sec)
Switch#
```

Step 5 On a dual-supervisor system, copy the same ROMMON image to the standby supervisor engine with the **copy bootflash:cat4500-e-ios-promupgrade-122_31r_SGA7 slavebootflash** command.

Step 6 From the console, enter the **reload** command to reset the switch, press **Ctrl-C** to stop the boot process, then re-enter ROMMON mode.

✎ **Note** On a redundant system, this action causes a switchover.

The following example shows the output after a reset into ROMMON:

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

03:57:16:%SYS-5-RELOAD:Reload requested


 Rom Monitor Program Version 12.1(12r)EW


.
.(output truncated)
.

 Established physical link 1Gb Full Duplex
 Network layer connectivity may take a few seconds
rommon 1 >
```

Step 7   Run the PROM upgrade program by entering this command:
boot bootflash:cat4500-e-ios-promupgrade-122_31r_SGA7

⚠
Caution   No intervention is necessary to complete the upgrade. To ensure a successful upgrade, do not interrupt the upgrade process. Do not perform a reset, power cycle, or OIR of the supervisor engine until the upgrade is complete.

The following example shows the output from a successful upgrade, followed by a system reset:

```
rommon 2 > boot bootflash:cat4500-e-ios-promupgrade-122_31r_SGA7

**********************************************************
*                                                        *
* Rom Monitor Upgrade Utility For WS-X4516-10GE System   *
*                                                        *
* Copyright (c) 2003-2006  by Cisco Systems, Inc.        *
* All rights reserved.                                   *
*                                                        *
**********************************************************

Upgrading Image... DO NOT RESET the system
unless instructed or upgrade will fail !!!

Image Name : Cat4K_Mpc8540_Rommon
Image size : 1048576 bytes

Uncompressing image.....
Done!

Beginning erase operation......
Done!

Beginning write operation......
Done!

Verifying......
Done!


**********************************************************
System will now reset itself and reboot within few seconds
**********************************************************
```

```
*!*

************************************************************
 *                                                        *
 * Welcome to Rom Monitor for WS-X4516-10GE System.       *
 * Copyright (c) 2003-2006, 2008 by Cisco Systems, Inc.       *
 * All rights reserved.                                   *
 *                                                        *
************************************************************

 Rom Monitor Program Version 12.2(31r)SGA4
 Supervisor: WS-X4516-10GE  Chassis: WS-C4507R-E
 Hardware Revisions - Board: 4.10 CPLD Tie: 32 FPGA Pod: 16
 …
rommon 1 >
```

Step 8   Boot the Cisco IOS software image. This may happen automatically if the system is configured to auto-boot.

Step 9   On a redundant system, hook up a console to the now-active supervisor engine. After the system achieves an SSO state, repeat steps 6-8.

Step 10   Use the **show version** command to verify that you have upgraded the ROMMON:

```
Switch# show version
Cisco IOS Software, Catalyst 4500 L3 Switch Software (cat4500-IPBASEK9-M), Version
12.2(31)SGA8, RELEASE SOFTWARE (fc1)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2008 by Cisco Systems, Inc.
Compiled Tue 29-Jul-08 12:15 by tinhuang
Image text-base: 0x10000000, data-base: 0x115D3CD0

ROM: 12.2(31r)SGA7
Pod Revision 16, Force Revision 34, Tie Revision 32

…
Switch#
```

Step 11   Use the **delete** command on the active supervisor to delete the PROM upgrade program from bootflash.

The following example shows how to delete **cat4500-e-ios-promupgrade-122r_31_SGA7** image from bootflash:

```
Switch# delete bootflash:cat4500-e-ios-promupgrade-122_31r_SGA7
```

Step 12   On a redundant system, also delete the upgrade file from the standby supervisor engine:

```
Switch# delete slavebootflash:cat4500-e-ios-promupgrade-122_31r_SGA7
```

The ROMMON has now been upgraded.

Caveats

Caveats describe unexpected behavior in Cisco IOS releases.

Open Caveats in Cisco IOS Release 12.2(31r)SGA7

This section lists the open caveats in Cisco IOS Release 12.2(31r)SGA7.

- None

Resolved Caveats in Cisco IOS Release 12.2(31r)SGA7

The following caveat is resolved in this release:

- ROMMON 12.2(31r)SGA5 or 12.2(31r)SGA6 might fail when a certain sequence of the ROMMON commands (**dir slot0:**, **dir bootflash:**, and **dev**) are invoked from the **rommon>** prompt. The failure manifests itself as an UNHANDLED ROMMON EXCEPTION.

  Workaround: None.

  CSCtr65301

Open Caveats in Cisco IOS Release 12.2(31r)SGA4

This section lists the open caveats in Cisco IOS Release 12.2(31)SG4:

- None

Resolved Caveats in Cisco IOS Release 12.2(31r)SGA4

The following caveat is resolved in this release:

- While attempting to upgrade the IOS image on supervisor engine WS-X4013+10GE, the engine might fail to boot. An Unhandled Rommon Exception will display.

  Workaround: None.

  CSCsw91043

Open Caveats in Cisco IOS Release 12.2(31r)SGA3

This section lists the open caveats in Cisco IOS Release 12.2(31r)SGA3:

- None

Resolved Caveats in Cisco IOS Release 12.2(31r)SGA3

This section lists the resolved caveats in Cisco IOS Release 12.2(31r)SGA3:

- A redundant Supervisor on a Catalyst 4500 may become unresponsive due to missed keepalives. The standby supervisor engine status becomes unknown.

Workarounds:

- Continue to operate system in non-redundant mode.

- Reset active supervisor to operate in RPR redundant mode.

(CSCsl88908)

Related Documentation

Although their Release Notes are unique, the 4 platforms (Catalyst 4500, Catalyst 4900, Catalyst ME 4900, and Catalyst 4900M) use the same *Software Configuration Guide*, *Command Reference Guide*, and *System Message Guide*. Refer to the following home pages for additional information:

- Catalyst 4500 Series Switch Documentation Home

  http://www.cisco.com/go/cat4500/docs

- Catalyst 4900 Series Switch Documentation Home

  http://www.cisco.com/go/cat4900/docs

- Cisco ME 4900 Series Ethernet Switches Documentation Home

  http://www.cisco.com/en/US/products/ps7009/tsd_products_support_series_home.html

Hardware Documents

Installation guides and notes including specifications and relevant safety information are available at the following URLs:

- *Catalyst 4500 Series Switches Installation Guide*

  http://www.cisco.com/en/US/docs/switches/lan/catalyst4500/hardware/installation/guide/78-14409-08/4500inst.html

- *Catalyst 4500 E-series Switches Installation Guide*

  http://www.cisco.com/en/US/docs/switches/lan/catalyst4500/hardware/catalyst4500e/installation/guide/Eseries.html

- For information about individual switching modules and supervisors, refer to the *Catalyst 4500 Series Module Installation Guide* at:

  http://www.cisco.com/en/US/products/hw/switches/ps4324/prod_installation_guides_list.html

- *Regulatory Compliance and Safety Information for the Catalyst 4500 Series Switches*

  http://www.cisco.com/en/US/docs/switches/lan/catalyst4500/hardware/regulatory/compliance/78_13233.html

- Installation notes for specific supervisor engines or for accessory hardware are available at:

  http://www.cisco.com/en/US/products/hw/switches/ps4324/prod_installation_guides_list.html

- Catalyst 4900 and 4900M hardware installation information is available at:

  http://www.cisco.com/en/US/products/ps6021/prod_installation_guides_list.html

- Cisco ME 4900 Series Ethernet Switches installation information is available at:

  http://www.cisco.com/en/US/products/ps7009/prod_installation_guides_list.html

Software Documentation

Software release notes, configuration guides, command references, and system message guides are available at the following URLs:

- Catalyst 4500 release notes are available at:

  http://www.cisco.com/en/US/products/hw/switches/ps4324/prod_release_notes_list.html

- Catalyst 4900 release notes are available at:

  http://www.cisco.com/en/US/products/ps6021/prod_release_notes_list.html

- Cisco ME4900 4900 Series Ethernet Switch release notes are available at:

  http://www.cisco.com/en/US/docs/switches/lan/catalyst4500/release/note/OL_11511.html

Software documents for the Catalyst 4500 Classic, Catalyst 4500 E-Series, Catalyst 4900, and Cisco ME 4900 Series Ethernet Switches are available at the following URLs:

- *Catalyst 4500 Series Software Configuration Guide*

  http://www.cisco.com/en/US/products/hw/switches/ps4324/products_installation_and_configuration_guides_list.html

- *Catalyst 4500 Series Software Command Reference*

  http://www.cisco.com/en/US/products/hw/switches/ps4324/prod_command_reference_list.html

- *Catalyst 4500 Series Software System Message Guide*

  http://www.cisco.com/en/US/products/hw/switches/ps4324/products_system_message_guides_list.html

Cisco IOS Documentation

Platform-independent Cisco IOS documentation may also apply to the Catalyst 4500 and 4900 switches. These documents are available at the following URLs:

- Cisco IOS configuration guides, Release 12.x

  http://www.cisco.com/en/US/products/ps6350/products_installation_and_configuration_guides_list.html

- Cisco IOS command references, Release 12.x

  http://www.cisco.com/en/US/products/ps6350/prod_command_reference_list.html

  You can also use the Command Lookup Tool at:

  http://tools.cisco.com/Support/CLILookup/cltSearchAction.do

- Cisco IOS system messages, version 12.x

  http://www.cisco.com/en/US/products/ps6350/products_system_message_guides_list.html

  You can also use the Error Message Decoder tool at:

  http://www.cisco.com/pcgi-bin/Support/Errordecoder/index.cgi

- For information about MIBs, refer to:

  http://www.cisco.com/public/sw-center/netmgmt/cmtk/mibs.shtml

Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html

Subscribe to the *What's New in Cisco Product Documentation* as a Really Simple Syndication (RSS) feed and set content to be delivered directly to your desktop using a reader application. The RSS feeds are a free service and Cisco currently supports RSS version 2.0.