



Operating System Conversion Procedure for Supervisor Engine 720 and Supervisor Engine 32

This document provides the procedure for converting a Cisco IOS software image to a Catalyst operating system software image on a replacement Supervisor Engine 720 or Supervisor Engine 32 using a removable media card.

Converting from Catalyst Operating System to Cisco IOS for Dual Supervisor Engines and High Availability

This procedure is applicable for chassis with dual supervisor engines and operating in high availability mode. After you complete the installation of the replacement supervisor engine, follow the procedure to convert the system from the Catalyst operating system image to a Cisco IOS image.

Installing the Replacement Supervisor Engine

To install the replacement supervisor engine, follow these steps:

- Step 1** Remove the defective supervisor engine from the Catalyst 6500 series switch.
- If you are unsure about the correct procedure for removing a supervisor engine from the switch chassis, refer to the removal and replacement procedures at this URL:
http://www.cisco.com/univercd/cc/td/doc/product/lan/cat6000/cfgnotes/78_15767.htm
- Step 2** Slide the replacement supervisor engine half way into the chassis.
- Refer to the module installation procedure in the module installation note located at the URL in Step 1.
- Step 3** Insert the PCMCIA card into the supervisor engine PCMCIA slot 0.



Note If your previous supervisor engine had a PCMCIA card installed that contained the correct Cisco IOS software release, you can use it for this step. If your supervisor engine does not have a PCMCIA card that contains the correct Cisco IOS release, use the PCMCIA card that comes with the software conversion kit.



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Step 4 Connect the console terminal cable to the replacement supervisor engine CONSOLE port.



Note Use an EIA/TIA-232 (RS-232) cable to connect the console terminal to the supervisor engine CONSOLE port.

Step 5 Slide the supervisor engine the rest of the way into the chassis slot.

If you are unsure about the correct procedure for installing a supervisor engine in the switch chassis, refer to the module removal and replacement procedures at this URL:

http://www.cisco.com/univercd/cc/td/doc/product/lan/cat6000/cfgnotes/78_15767.htm

Step 6 Press the **Ctrl** plus **Break** keys to enter the break sequence.

You might need to repeat this keystroke sequence several times before the supervisor engine enters the ROMMON mode.

Changing ROMMON Configuration to Convert from the Catalyst Operating System to the Cisco IOS Operating System

This procedure is applicable for chassis with dual supervisor engines and operating in redundant mode with high availability. After you complete the installation of the removable media card as specified in the “Installing the Replacement Supervisor Engine” section on page 1, follow these steps to convert a system from a Catalyst operating software image to a Cisco IOS image:

	Command	Purpose
Step 1	<pre>rommon 1> set CONFIG_FILE=bootflash:switch.cfg BOOT=bootflash:cat6000-sup720k8.8-3-2.bin,1: Note For Supervisor Engine 32, the file name is cat6000-sup32pfc3cvk8.8-4-4.bin</pre>	Displays the boot variables.
Step 2	<pre>rommon 2> BOOT= rommon 3> CONFIG_FILE=</pre>	Clears the boot variables.
Step 3	<pre>rommon 4> BOOT=slot0:c6msfc3-psv-mz.121-17d.SXB1.bin Note slot0: could also be disk0: if you are using an ATA flash disk. Note For Supervisor Engine 32, the image name is c6msfc2a-jsv-mz.122-17dSXB11a.bin</pre>	Sets the boot variable to point to the Cisco IOS image on the PCMCIA card.
Step 4	<pre>rommon 5> sync</pre>	Causes the above changes to take effect.
Step 5	<pre>rommon 6> reset :: <output omitted> :: Router-sdby> Standby console disabled Router-sdby> Standby console disabled</pre>	Resets the supervisor engine from the ROMMON prompt.

	Command	Purpose
Step 6	<pre>Router> Router> en Router# sh bootvar BOOT variable = slot0:c6msfc3-psv-mz.121-17d.SXB1.bin CONFIG_FILE variable does not exist BOOTLDR variable= Configuration register is 0x2102 Standby is up Note</pre>	<p>Plug the console cable back into the active supervisor engine and verify the boot variables.</p>
Step 7	<pre>Router# format slavesup-bootflash:</pre>	<p>Formats the slave supervisor engine bootflash.</p> <p>Note If the slave supervisor engine bootflash is not formatted, the standby supervisor engine will retain the Hybrid mode algorithm. The configuration changes will not be copied between the active and standby supervisor engines.</p>
Step 8	<pre>>show mod</pre>	<p>Verifies that the replacement supervisor engine is recognized by the system.</p> <p>Note Both supervisor engines should be recognized by the system; one supervisor engine shown as being active and the other supervisor engine as standby.</p>

After you have completed the operating system conversion task, finish the process by attaching the network interface cables to the interface ports.

Converting from Catalyst Operating System to Cisco IOS for a Single Supervisor Engine

This procedure is applicable for chassis equipped with a single supervisor engine. After you complete the installation of the replacement supervisor engine, follow the procedure to convert the system from the Catalyst operating system image to a Cisco IOS image.

Installing the Replacement Supervisor Engine

To install the replacement supervisor engine, follow these steps:

Step 1 Obtain and save the current the switch configuration.



Note You might need to consult with the system administrator to see if they have a copy of the current system configuration. If you do not have a copy of the configuration, obtain the enable password and save a copy of the current configuration to your computer or by contacting the NOC, the customer, a site representative, or by using the configuration from a PCMCIA card.

Step 2 Power down the chassis by turning the power supply power switch to the 0 position. If there is a second power supply in the chassis, turn its power switch to the 0 position.



Note You must power down the switch in chassis equipped with only one supervisor engine. Network traffic will be lost during the period of time the system is shut down.

Step 3 Remove the defective supervisor engine from the Catalyst 6500 series switch.

If you are unsure about the correct procedure for removing a supervisor engine from the switch chassis, refer to the removal and replacement procedures at this URL:

http://www.cisco.com/univercd/cc/td/doc/product/lan/cat6000/cfgnotes/78_15767.htm

Step 4 Slide the replacement supervisor engine half way into the chassis.

Refer to the module installation procedure in the module installation note located at the URL in Step 3.

Step 5 Insert the PCMCIA card into the supervisor engine PCMCIA slot 0.



Note If your previous supervisor engine had a PCMCIA card installed that contained the correct Cisco IOS software release, you can use it for this step. If your supervisor engine does not have a PCMCIA card that contains the correct Cisco IOS release, use the PCMCIA card that comes with the software conversion kit.

Step 6 Connect the console terminal cable to the replacement supervisor engine CONSOLE port.



Note Use an EIA/TIA-232 (RS-232) cable to connect the console terminal to the supervisor engine CONSOLE port.

Step 7 Finish installing the supervisor engine in the chassis slot. If you are unsure about the correct procedure for installing a supervisor engine in the switch chassis, refer to the module removal and replacement procedures at this URL:

http://www.cisco.com/univercd/cc/td/doc/product/lan/cat6000/cfgnotes/78_15767.htm

Step 8 Power up the switch chassis by turning the power supply power switch to the I position. If the chassis is equipped with a second power supply, power it up by turning the power switch to the I position.

Step 9 Press the Ctrl plus Break keys to enter the break sequence. You might need to repeat this keystroke sequence several times before the supervisor engine enters the ROMMON mode.

Changing ROMMON Configuration to Convert from Catalyst Operating System to Cisco IOS on Chassis with One Supervisor Engine

This procedure is applicable for chassis with one supervisor engine. After you complete the installation of the replacement supervisor engine, follow these steps to convert a system from the Catalyst operating system image to a Cisco IOS image:

	Command	Purpose
Step 1	<pre>rommon 1> set CONFIG_FILE=bootflash:switch.cfg BOOT=bootflash:cat6000-sup720k8.8-3-2.bin,1:</pre> <p>Note For the Supervisor Engine 32, the image name is cat6000-sup32pfc3cvk8.8-4-4.bin</p>	Displays the boot variables.
Step 2	<pre>rommon 2> BOOT= rommon 3> CONFIG_FILE=</pre>	Clears the boot variables
Step 3	<pre>rommon 4> BOOT=slot0:c6msfc3-psv-mz.122-17d.SXB1.bin</pre> <p>Note slot0: could also be disk0: if you are using an ATA flash disk.</p> <p>Note For the Supervisor Engine 32, the image name is c6msfc2a-jsv-mz.122-17d.SXB11a.bin</p>	Sets the boot variable to point to the Cisco IOS image on the PCMCIA card.
Step 4	<pre>rommon 5> sync</pre>	Forces the previous changes to take effect.
Step 5	<pre>rommon 6> reset :: <output omitted> ::</pre> <p>Note The supervisor engine reloads normally.</p>	Resets the supervisor engine from the ROMMON prompt.

The following example shows how to convert your system from running Cisco IOS to Catalyst operating software:

```

Router>
Router> enable
Router#
Router# format bootflash:
Format operation may take a while. Continue? [confirm]y
Format of bootflash complete
Router# dir bootflash:
Directory of bootflash:/
No files in directory
65536000 bytes total (65536000 bytes free)
Router# dir disk0:
Directory of disk0:/
1 -rw- 15031472 May 28 2004 22:35:38 cat6000-sup720k8.8-3-2.bin (or
cat6000-sup32pfc3cvk8.8-4-4.bin for Supervisor Engine 32)
2 -rw- 17036892 May 28 2004 14:13:50 c6msfc3-psv-mz.122-17d.SXB1 (or
c6msfc2a-jsv-mz.122-17d.SXB1a.bin bootflash: for Supervisor Engine 32)
63873024 bytes total (31801344 bytes free)
Router# copy disk0:c6msfc3-psv-mz.122-17d.SXB1 bootflash:
Destination filename [c6msfc3-psv-mz.122-17d.SXB1]? (hit enter)
Copy in progress...CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
17036892 bytes copied in 88.320 secs (192900 bytes/sec)
Verifying compressed IOS image checksum...
Verified compressed IOS image checksum for bootflash:c6msfc3-psv-mz.122-17d.SXB1
Router# dir bootflash:
Directory of bootflash:/
1 -rw- 17036892 January 13 2005 17:00:49 c6msfc3-psv-mz.122-17d.SXB1
65536000 bytes total (48498980 bytes free)
Router# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)# no boot system
Router(config)# boot system flash disk0:
Router(config)# boot system flash bootflash:
Router(config)# config-register 0x2102
Router(config)# end
Router#
Router# write memory
Building configuration...
[OK]
Router# show boot
Router# reload
Proceed with reload? [confirm]
Console> enable
Console> (enable) set boot system flash disk0: prepend
Console> (enable) set boot config-register 0x2102

```

Related Documentation

For additional information on the operating system conversion process, refer to the following URLs:

- <http://www.cisco.com/warp/customer/473/80.shtml>
- <http://www.cisco.com/warp/customer/473/81.html>

Obtaining Documentation

Cisco documentation and additional literature are available on Cisco.com. This section explains the product documentation resources that Cisco offers.

Cisco.com

You can access the most current Cisco documentation at this URL:

<http://www.cisco.com/techsupport>

You can access the Cisco website at this URL:

<http://www.cisco.com>

You can access international Cisco websites at this URL:

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

Product Documentation DVD

The Product Documentation DVD is a library of technical product documentation on a portable medium. The DVD enables you to access installation, configuration, and command guides for Cisco hardware and software products. With the DVD, you have access to the HTML documentation and some of the PDF files found on the Cisco website at this URL:

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

The Product Documentation DVD is created monthly and is released in the middle of the month. DVDs are available singly or by subscription. Registered Cisco.com users can order a Product Documentation DVD (product number DOC-DOCDVD= or DOC-DOCDVD=SUB) from Cisco Marketplace at the Product Documentation Store at this URL:

<http://www.cisco.com/go/marketplace/docstore>

Ordering Documentation

You must be a registered Cisco.com user to access Cisco Marketplace. Registered users may order Cisco documentation at the Product Documentation Store at this URL:

<http://www.cisco.com/go/marketplace/docstore>

If you do not have a user ID or password, you can register at this URL:

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

Documentation Feedback

You can provide feedback about Cisco technical documentation on the Cisco Technical Support & Documentation site area by entering your comments in the feedback form available in every online document.

Cisco Product Security Overview

Cisco provides a free online Security Vulnerability Policy portal at this URL:

http://www.cisco.com/en/US/products/products_security_vulnerability_policy.html

From this site, you will find information about how to do the following:

- Report security vulnerabilities in Cisco products
- Obtain assistance with security incidents that involve Cisco products
- Register to receive security information from Cisco

A current list of security advisories, security notices, and security responses for Cisco products is available at this URL:

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

To see security advisories, security notices, and security responses as they are updated in real time, you can subscribe to the Product Security Incident Response Team Really Simple Syndication (PSIRT RSS) feed. Information about how to subscribe to the PSIRT RSS feed is found at this URL:

http://www.cisco.com/en/US/products/products_psirt_rss_feed.html

Reporting Security Problems in Cisco Products

Cisco is committed to delivering secure products. We test our products internally before we release them, and we strive to correct all vulnerabilities quickly. If you think that you have identified a vulnerability in a Cisco product, contact PSIRT:

- For emergencies only — security-alert@cisco.com

An emergency is either a condition in which a system is under active attack or a condition for which a severe and urgent security vulnerability should be reported. All other conditions are considered nonemergencies.

- For nonemergencies — psirt@cisco.com

In an emergency, you can also reach PSIRT by telephone:

- 1 877 228-7302
- 1 408 525-6532



Tip

We encourage you to use Pretty Good Privacy (PGP) or a compatible product (for example, GnuPG) to encrypt any sensitive information that you send to Cisco. PSIRT can work with information that has been encrypted with PGP versions 2.x through 9.x.

Never use a revoked encryption key or an expired encryption key. The correct public key to use in your correspondence with PSIRT is the one linked in the Contact Summary section of the Security

Vulnerability Policy page at this URL:

http://www.cisco.com/en/US/products/products_security_vulnerability_policy.html

The link on this page has the current PGP key ID in use.

If you do not have or use PGP, contact PSIRT to find other means of encrypting the data before sending any sensitive material.

Product Alerts and Field Notices

Modifications to or updates about Cisco products are announced in Cisco Product Alerts and Cisco Field Notices. You can receive Cisco Product Alerts and Cisco Field Notices by using the Product Alert Tool on Cisco.com. This tool enables you to create a profile and choose those products for which you want to receive information.

To access the Product Alert Tool, you must be a registered Cisco.com user. (To register as a Cisco.com user, go to this URL: <http://tools.cisco.com/RPF/register/register.do>) Registered users can access the tool at this URL: <http://tools.cisco.com/Support/PAT/do/ViewMyProfiles.do?local=en>

Obtaining Technical Assistance

Cisco Technical Support provides 24-hour-a-day award-winning technical assistance. The Cisco Technical Support & Documentation website on Cisco.com features extensive online support resources. In addition, if you have a valid Cisco service contract, Cisco Technical Assistance Center (TAC) engineers provide telephone support. If you do not have a valid Cisco service contract, contact your reseller.

Cisco Technical Support & Documentation Website

The Cisco Technical Support & Documentation website provides online documents and tools for troubleshooting and resolving technical issues with Cisco products and technologies. The website is available 24 hours a day at this URL:

<http://www.cisco.com/techsupport>

Access to all tools on the Cisco Technical Support & Documentation website requires a Cisco.com user ID and password. If you have a valid service contract but do not have a user ID or password, you can register at this URL:

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

**Note**

Use the **Cisco Product Identification Tool** to locate your product serial number before submitting a request for service online or by phone. You can access this tool from the Cisco Technical Support & Documentation website by clicking the **Tools & Resources** link, clicking the **All Tools (A-Z)** tab, and then choosing **Cisco Product Identification Tool** from the alphabetical list. This tool offers three search options: by product ID or model name; by tree view; or, for certain products, by copying and pasting **show** command output. Search results show an illustration of your product with the serial number label location highlighted. Locate the serial number label on your product and record the information before placing a service call.

**Tip**

Displaying and Searching on Cisco.com

If you suspect that the browser is not refreshing a web page, force the browser to update the web page by holding down the Ctrl key while pressing F5.

To find technical information, narrow your search to look in technical documentation, not the entire Cisco.com website. On the Cisco.com home page, click the **Advanced Search** link under the Search box and then click the **Technical Support & Documentation** radio button.

To provide feedback about the Cisco.com website or a particular technical document, click **Contacts & Feedback** at the top of any Cisco.com web page.

Submitting a Service Request

Using the online TAC Service Request Tool is the fastest way to open S3 and S4 service requests. (S3 and S4 service requests are those in which your network is minimally impaired or for which you require product information.) After you describe your situation, the TAC Service Request Tool provides recommended solutions. If your issue is not resolved using the recommended resources, your service request is assigned to a Cisco engineer. The TAC Service Request Tool is located at this URL:

<http://www.cisco.com/techsupport/servicerequest>

For S1 or S2 service requests, or if you do not have Internet access, contact the Cisco TAC by telephone. (S1 or S2 service requests are those in which your production network is down or severely degraded.) Cisco engineers are assigned immediately to S1 and S2 service requests to help keep your business operations running smoothly.

To open a service request 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 list of Cisco TAC contacts, go to this URL:

<http://www.cisco.com/techsupport/contacts>

Definitions of Service Request Severity

To ensure that all service requests are reported in a standard format, Cisco has established severity definitions.

Severity 1 (S1)—An existing 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.

Severity 2 (S2)—Operation of an existing network is severely degraded, or significant aspects of your business operations 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.

Severity 3 (S3)—Operational performance of the network is impaired while most business operations remain functional. You and Cisco will commit resources during normal business hours to restore service to satisfactory levels.

Severity 4 (S4)—You require information or assistance with Cisco product capabilities, installation, or configuration. There is little or no effect on your business operations.

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

- The *Cisco Product Quick Reference Guide* is a handy, compact reference tool that includes brief product overviews, key features, sample part numbers, and abbreviated technical specifications for many Cisco products that are sold through channel partners. It is updated twice a year and includes the latest Cisco channel product offerings. To order and find out more about the *Cisco Product Quick Reference Guide*, go to this URL:

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

- Cisco Marketplace provides a variety of Cisco books, reference guides, documentation, and logo merchandise. Visit Cisco Marketplace, the company store, at this URL:

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- 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 at this URL:

<http://www.ciscopress.com>

- *Packet* magazine is the magazine for Cisco networking professionals. Each quarter, *Packet* delivers coverage of the latest industry trends, technology breakthroughs, and Cisco products and solutions, as well as network deployment and troubleshooting tips, configuration examples, customer case studies, certification and training information, and links to scores of in-depth online resources. You can subscribe to *Packet* magazine at this URL:

<http://www.cisco.com/packet>

- *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>

- Networking products offered by Cisco Systems, as well as customer support services, can be obtained at this URL:
<http://www.cisco.com/en/US/products/index.html>
- Networking Professionals Connection is an interactive website where networking professionals share questions, suggestions, and information about networking products and technologies with Cisco experts and other networking professionals. Join a discussion at this URL:
<http://www.cisco.com/discuss/networking>
- “What’s New in Cisco Documentation” is an online publication that provides information about the latest documentation releases for Cisco products. Updated monthly, this online publication is organized by product category to direct you quickly to the documentation for your products. You can view the latest release of “What’s New in Cisco Documentation” at this URL:
<http://www.cisco.com/univercd/cc/td/doc/abtunicd/136957.htm>
- World-class networking training is available from Cisco. You can view current offerings at this URL:
<http://www.cisco.com/en/US/learning/index.html>

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