BootROM Installation for Cisco 2620 and Cisco 2621 Routers

Product Numbers:
MEM2620-32FSBOOT=

This document describes the procedures for replacing the BootROM in a Cisco 2620 or Cisco 2621 router. Cisco 2620 and Cisco 2621 routers can be upgraded to support a maximum of 32MB of Flash memory when using both the Cisco 2600 BootROM version 12.1(3r)T2 (supplied with Cisco p/n MEM2620-32FSBoot=) and Cisco IOS Release 12.1.3T, 12.2, 12.2T, or later Cisco IOS versions.

Note You can upgrade the BootROM to support 32MB Flash in the following routers: Cisco 2620 and Cisco 2621.
Cisco 2620XM and Cisco 2621XM routers already support 32MB Flash; they do not require a BootROM upgrade.

Additional information about Cisco 2600 series routers is in the *Cisco 2600 Series Routers Hardware Installation Guide*. This document can be accessed on the Documentation CD-ROM or online through Cisco.com at: **Cisco Product Documentation > Access Servers and Access Routers > Modular Access Routers > Cisco 2600 Series Routers > Hardware installation documents for Cisco 2600 series > Cisco 2600 Series Routers Hardware Installation Guide**.

The Regulatory Compliance and Safety Information document provides essential safety information applicable to your router. You can access this document at: **Cisco Product Documentation > Access Servers and AccessRouters > Modular Access Routers > Cisco 2600 Series Routers > Regulatory compliance and safety documents for the Cisco 2600 Series**

This document contains the following sections:

CISCO SYSTEMS

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Warning **Only trained and qualified personnel should be allowed to install or replace this equipment.**

Warning **Before performing any procedures described in this document, review the Safety Recommendations in your Regulatory Compliance and Safety Information document.**

Note When a procedure refers to the left side or right side of the chassis, it means as viewed from the front.

Opening the Chassis

This section describes the procedure for opening the chassis by removing the chassis cover.

Warning **Do not touch the power supply when the power cord is connected. For systems with a power switch, line voltages are present within the power supply even when the power switch is OFF and the power cord is connected. For systems without a power switch, line voltages are present within the power supply when the power cord is connected. To see translations of the warnings that appear in this publication, refer to the *Regulatory Compliance and Safety Information* document that accompanied this device.**

Warning **To prevent personal injury or damage to the chassis, never attempt to lift or tilt the chassis using the handles on modules (such as power supplies, fans, or cards); these types of handles are not designed to support the weight of the unit. To see translations of the warnings that appear in this publication, refer to the *Regulatory Compliance and Safety Information* document that accompanied this device.** Statement 1032

Tools Required

You will need the following tools to remove and replace the BootROM on the router:

• Number 2 Phillips screwdriver

• Electrostatic discharge (ESD)-preventive wrist strap

• BootROM required for your planned upgrade

Removing the Chassis Cover

You must open the chassis to access the internal components.

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Warning **Before opening the chassis, disconnect the telephone-network cables to avoid contact with telephone-network voltages.**

To remove the chassis cover:

Step 1 Attach an ESD-preventive wrist strap and ensure that it makes good contact with your skin. Connect the equipment end of the wrist strap to the metal backplane of the chassis, avoiding contact with the connectors.

Step 2 Power OFF the router.

Step 3 Disconnect all cables from the rear panel of the router.

Step 4 Remove the screws located on the top of the chassis. Note that the chassis is comprised of two sections: top and bottom.

Step 5 Holding the chassis with both hands, position it as shown in Figure 1.

Step 6 Slide the top section away from the bottom section as shown in Figure 2. Set the cover aside.

Figure 1   *Holding Chassis for Cover Removal*
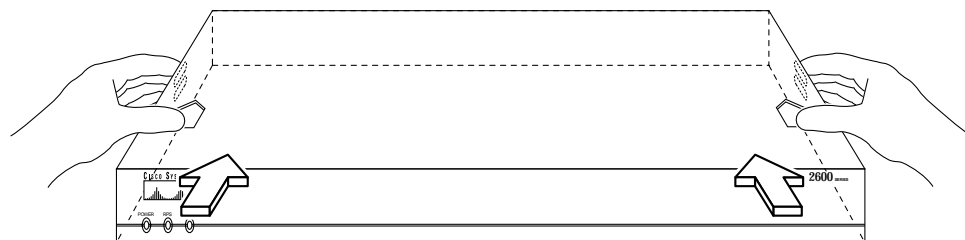
*Figure 2*   *Removing Chassis Cover*
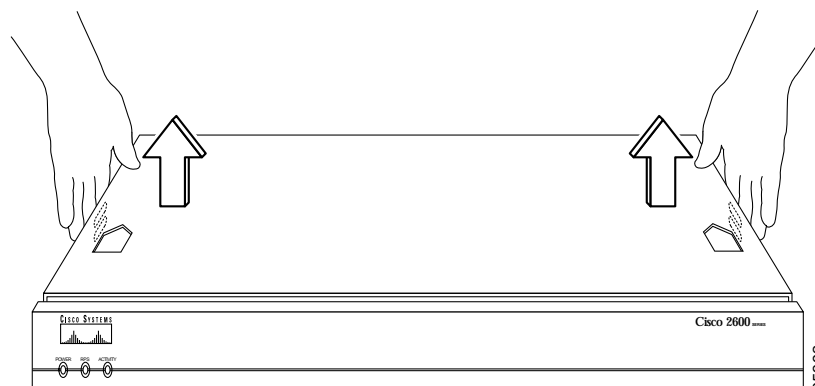
Replacing the ROM

To upgrade the router ROM software to a new ROM monitor version, you must replace the existing ROM. Follow this procedure to replace the ROM:

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Caution   Correct placement of the ROM is crucial. If improperly positioned, the new component could be damaged when the router is powered on. Read all instructions before proceeding. To prevent damage to the ROM from ESD (when handling the router and its components), follow the ESD procedures described in your hardware guide and see the Regulatory Compliance and Safety Information document. Be careful not to damage or scratch the printed circuit card under the ROM.

Step 1   Locate the ROM on the system board (motherboard) layout as shown in Figure 3.

Step 2   Gently remove the old ROM with a ROM extraction tool or a small flat-blade screwdriver, and set it aside.

Figure 3   System Board Layout, Cisco 2620 and Cisco 2621 Only
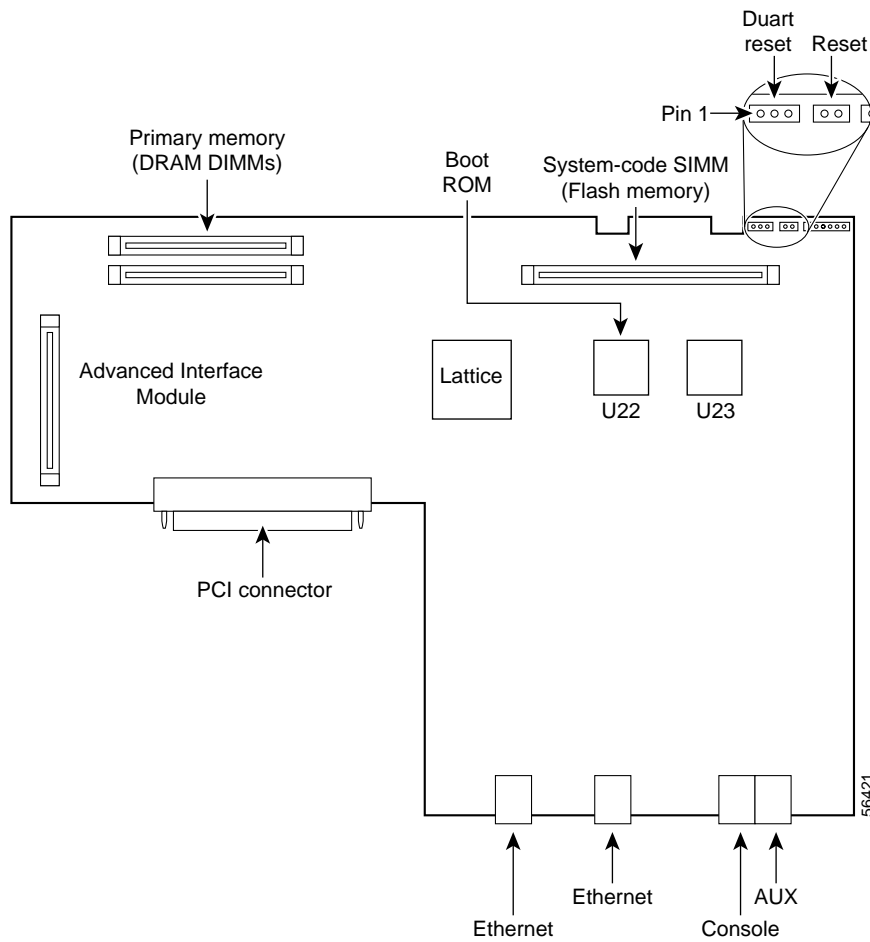
Step 3 Orient and insert the new ROM in its socket as shown in Figure 3, being careful to not bend or crush any of the bottom pins. To straighten out a bent pin, use needlenose pliers. Align the notch in the new ROM with the notch in the ROM socket, ignoring the orientation of the label.

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Caution The notch on the ROM must match the notch on the socket on the system board. Installing the ROM backward will damage it.

Closing the Chassis

Close the chassis by replacing the cover:

Step 1 Position the two chassis sections, as shown in Figure 2.

Step 2 Referring to Figure 2, press the two chassis sections together and verify the following:

- The top section fits *into* the rear of the bottom section. The bottom section fits *into* the front of the top section.

- Each side of the top and bottom sections fits together.

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Caution To fit the two sections together, it might be necessary to work them together at one end and then the other, working back and forth; however, use care to prevent bending the chassis edges.

Step 3 When the two sections fit together snugly, slide the chassis top so it fits into the front bezel.

Step 4 Replace the cover screws. Tighten the screws to no more than 8 or 9 inch/pound of torque.

Step 5 Reinstall the chassis on the wall, rack, desktop, or table.

Step 6 Reconnect all cables.

Testing ROM Installation

Test your installation by rebooting the router. If you installed the ROM correctly, the router will boot into the ROM monitor or operating system.

If you suspect that the ROM is inserted incorrectly, remove and reinstall the ROM as described in the "Replacing the ROM" section on page 4. Reboot the router again.

Obtaining Documentation

Cisco provides several ways to obtain documentation, 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

Documentation CD-ROM

Cisco documentation and additional literature are available in a Cisco Documentation CD-ROM package, which may have shipped with your product. The Documentation CD-ROM is updated regularly and may be more current than printed documentation. The CD-ROM package is available as a single unit or through an annual or quarterly subscription.

Registered Cisco.com users can order a single Documentation CD-ROM (product number DOC-CONDOCCD=) through the Cisco Ordering tool:

http://www.cisco.com/en/US/partner/ordering/ordering_place_order_ordering_tool_launch.html

All users can order annual or quarterly subscriptions through the online Subscription Store:

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

Click Subscriptions & Promotional Materials in the left navigation bar.

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 Networking Products MarketPlace:

  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).

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 (http://www.cisco.com/tac) 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.

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

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.

*   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://www.cisco.com/en/US/products/products_catalog_links_launch.html

*   Cisco Press publishes a wide range of general networking, training and certification titles. Both new and experienced user 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/en/US/about/ac123/ac147/about_cisco_the_internet_protocol_journal.html

*   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