

C I S C O S Y S T E M S

Doc. No. 78-1489-01

Upgrading Boot ROMs in the Cisco HyperSwitch A100

Cisco Product Numbers: SW-A100-K7=

Upgrading the ROM in the Cisco HyperSwitch A100 requires opening the chassis, removing the old ROMs, and installing new ROMs. This publication will guide you step-by-step in the process.

The following are the sections in this publication:

- “Read-Only Memory Upgrade”
- “Safety Recommendations”
- “Safety with Electricity”
- “Software Upgrade”

Read-Only Memory Upgrade

This section provides the procedure to upgrade read-only memory (ROM) chips. Upgrades require use of the PROC card, a Versa Module Eurocard (VME) board mounted with a reduced instruction set computing (RISC) processor.

Required Equipment for Upgrading ROM

Have the following items available when upgrading the system ROM:

- Four replacement ROM integrated circuit (IC) chips
- Electrostatic protection kit
- ROM extraction tool
- Number 1 Phillips screwdriver

Note This procedure assumes that the console terminal and the HyperSwitch A100 are properly installed and configured.

Safety Recommendations

Follow these guidelines to ensure general safety:

- Keep the chassis area clear and dust-free during and after installation.
- Put the removed chassis cover in a safe place.
- Keep tools away from walk areas where you or others could trip over them.
- Do not wear loose clothing that could get caught in the chassis. Fasten your tie or scarf and roll up your sleeves.
- Wear safety glasses when working under any conditions that might be hazardous to your eyes.
- Do not perform any action that creates a potential hazard to people or makes the equipment unsafe.

Safety with Electricity



Warning Before working on equipment that is connected to power lines, remove jewelry (including rings, necklaces, and watches). Metal objects will heat up when connected to power and ground and can cause serious burns or can weld to the terminals.

Follow these guidelines when working on equipment powered by electricity:

- Locate the emergency power-off switch in the room in which you are working. Then, if an electrical accident occurs, you can quickly shut the power OFF.
- Before working on the system, turn OFF the power and unplug the power cord.
- Disconnect all power before doing the following:
 - Installing or removing a router chassis
 - Working near power supplies
 - Performing a software upgrade
- Do not work alone if potentially hazardous conditions exist.
- Never assume that power is disconnected from a circuit. Always check.
- Look carefully for possible hazards in your work area, such as moist floors, ungrounded power extension cables, and missing safety grounds.
- If an electrical accident occurs, proceed as follows:
 - Use caution; do not become a victim yourself.
 - Turn OFF power to the system.
 - If possible, send another person to get medical aid. Otherwise, determine the condition of the victim and then call for help.
 - Determine if the person needs rescue breathing or external cardiac compressions; then take appropriate action.

Preventing Electrostatic Discharge Damage

Electrostatic discharge (ESD) can damage equipment and impair electrical circuitry. It occurs when electronic printed circuit cards are improperly handled and can result in complete or intermittent failures. Always follow ESD prevention procedures when removing and replacing cards. Ensure that the router chassis is electrically connected to earth ground. Wear an ESD-preventive wrist strap, ensuring that it makes good skin contact. Connect the clip to an unpainted chassis frame surface to safely channel unwanted ESD voltages to ground. To properly guard against ESD damage and shocks, the wrist strap and cord must operate effectively. If no wrist strap is available, ground yourself by touching the metal part of the chassis.



Caution For safety, periodically check the resistance value of the antistatic strap, which should be within the range of 1 through 10 megohm.

ROM Upgrade Procedure

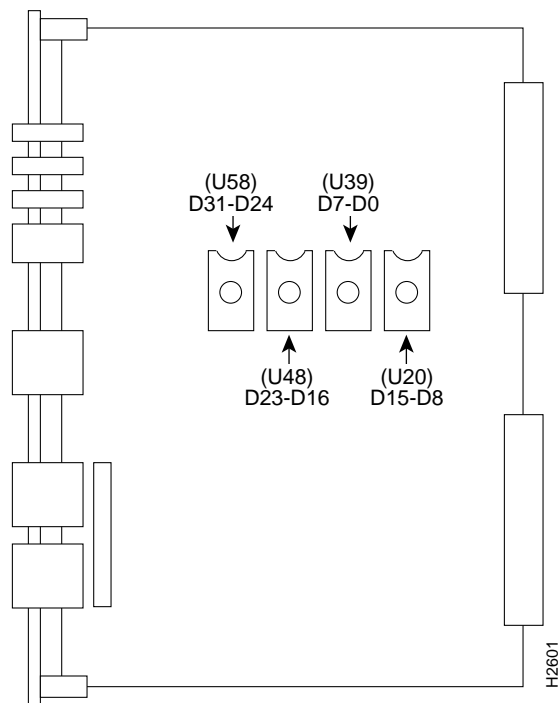
Perform the following procedure to replace the ROM integrated circuit chips:

- Step 1** Provide protection against static electricity. Work on an antistatic mat, if possible, and always use an ESD preventive wrist strap attached to a metal grounding point on the chassis.
- Step 2** Turn OFF the console terminal power switch, and disconnect the EIA/TIA-232 cable connected to the console terminal from the HyperSwitch A100 front panel.
- Step 3** Set the power switch on the back of the HyperSwitch A100 main unit to the OFF position. Unplug the power cable from the power outlet and then from the HyperSwitch A100.
- Step 4** Using the Phillips screwdriver, remove the six screws from the PROC card panel. Grasp the card ejectors on the PROC card panel and pull the card outward.
- Step 5** Using the ROM extraction tool, remove the four ROM IC chips. (See Figure 1.)
- Step 6** Insert new ROM IC chips on the PROC card securely. Each ROM IC chip is labeled according to the version and mounting position on the package.

Note Ensure the orientation of the ROM IC chips is correct. The notch in each IC should be oriented as shown in Figure 1.

- Step 7** Replace the PROC card in the HyperSwitch A100.
- Step 8** Using the Phillips screwdriver, reinsert the screws and fasten the PROC card cover.
- Step 9** Replug the HyperSwitch A100 power cable into the power outlet.
- Step 10** Reconnect the EIA/TIA-232 cable to the HyperSwitch A100 front panel.

Figure 1 ROM Integrated Circuit Chips Positions



Setting Communications Software Parameters

To set communications software parameters, perform the following procedure:

Step 1 Turn ON the console terminal power switch.

Step 2 Set the following communications parameters on the console terminal:

- Line transmission rate: 9600 bps
- Data: 8 bits
- Parity: none
- Stop bit: 1 bit
- Flow control: ON

Verifying Console Terminal Settings after Upgrading the ROM

To verify operation, perform the following:

Step 1 Set the power switch on the back of the HyperSwitch A100 to the ON position. The HyperSwitch A100 starts to execute a self-diagnostic test.

Step 2 Confirm that the ROM or software version changed on the console terminal and that no errors display.

This completes the ROM upgrade procedure.

Cisco Information Online

Cisco Information Online (CIO) is Cisco Systems' primary, real-time support channel. You can use your product serial number to activate CIO for a single user during your warranty period. Maintenance customers and partners can self-register on CIO to obtain additional content and services.

Available 24 hours a day, 7 days a week, CIO provides a wealth of standard and value-added services to Cisco's customers and business partners. CIO services include product information, software updates, release notes, technical tips, the Bug Navigator, configuration notes, brochures, descriptions of service offerings, and download access to public and authorized files.

CIO serves a wide variety of users through two interfaces that are updated and enhanced simultaneously—a character-based version and a multimedia version that resides on the World Wide Web (WWW). The character-based CIO (called "CIO Classic") supports Zmodem, Kermit, Xmodem, FTP, Internet e-mail, and fax download options, and is excellent for quick access to information over lower bandwidths. The WWW version of CIO provides richly formatted documents with photographs, figures, graphics, and video, as well as hyperlinks to related information.

You can access CIO in the following ways:

- WWW: <http://www.cisco.com>.
- Telnet: [cio.cisco.com](telnet://cio.cisco.com) (198.92.32.130).
- Modem: From North America, 408 526-8070; from Europe, 33 1 64 46 40 82. Use the following terminal settings: VT100 emulation; data bits: 8; parity: none; stop bits: 1; and baud rates up to 14.4 kbps.

For a copy of CIO's Frequently Asked Questions (FAQ), contact cio-help@cisco.com. For additional information, contact cio-team@cisco.com.

Note If you are a network administrator and need personal technical assistance with a Cisco product that is under warranty or covered by a maintenance contract, contact Cisco's Technical Assistance Center (TAC) at 800 553-2447, 408 526-7209, or tac@cisco.com. To obtain general information about Cisco Systems, Cisco products, or upgrades, contact 800 553-6387, 408 526-7208, or cs-rep@cisco.com.

This document is to be used in conjunction with the *Cisco HyperSwitch A100 User Guide*.

Access Without Compromise, Catalyst, CD-PAC, CiscoFusion, CiscoView, CiscoWorks, HyperSwitch, Internetwork Operating System, IOS, Netscape, Point and Click Internetworking, SMARTnet, SynchroniCD, The Packet, UniverCD, Workgroup Director, and Workgroup Stack are trademarks; Access by Cisco and Bringing the power of internetworking to everyone are service marks; and Cisco, Cisco Systems, and the Cisco logo are registered trademarks of Cisco Systems, Inc. All other trademarks, service marks, registered trademarks, or registered service marks mentioned in this document are the property of their respective owners.

Copyright © 1994, Cisco Systems, Inc.
All rights reserved. Printed in USA

949R

