CISCO SYSTEMS

Doc. No. 78-1863-02 Rev B0

Installing the Cisco LightStream100 Processor Card and Software Version 2.5 Upgrade

These instructions explain how to upgrade the Cisco LightStream100 processor card and install Software Version 2.5. For Software Release 2.5 and later releases, it is necessary to upgrade the processor card to accommodate the software. The old processor card does not have enough Flash memory to accommodate Software Release 2.5 or later releases.

Note   You cannot install software releases prior to 2.5 on the new processor card.

Required Equipment

Have the following equipment available:

- A TFTP server
- A LightStream 100 switch
- A console terminal
- An Ethernet cable

Note   This procedure assumes that the TFTP server, LightStream100, console terminal, and Ethernet cable are properly installed and configured.
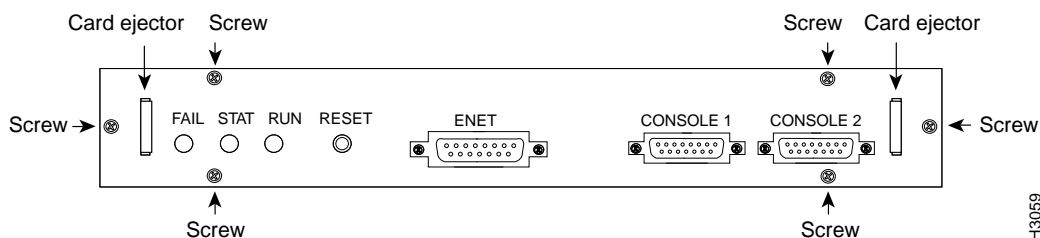
Installing the New Processor Card

To install the new processor (PROC) card, follow these steps:

Step 1   Provide protection against static electricity.

Step 2   Set the console terminal power switch to the OFF (O) position.

Step 3   Set the power switch on back of the LightStream100 to the OFF (O) position. Unplug the power cable from the power outlet and then from the LightStream100.

**Step 4**   Disconnect all cables from the PROC card on the front panel.

Step 5 Using a 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. (See Figure 1.)

Figure 1   Old PROC Card Panel

Step 6 Remove the new processor card from its packing material and carefully slide in the new PROC card (see Figure 2). Make sure the card is securely seated in the connector sockets.

Figure 2   New PROC Card Panel
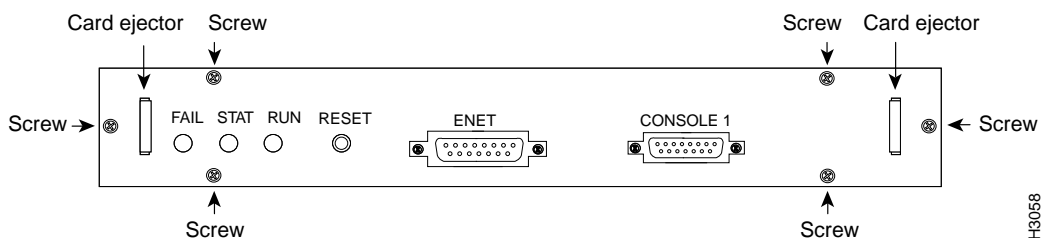
Step 7 With a Phillips screwdriver, use the six screws you removed in Step 5 to secure the new PROC card to the chassis. (See Figure 2.)

Step 8 Reconnect the cables you removed from the PROC card.

Step 9 Reconnect the power cable to the main unit.

Step 10 Set the console terminal power switch to the ON (|) position. The following message appears:

```
The system is coming up now.
If you want to enter boot program, push [ESC] key immediately. If the [ESC] key is
detected within 3 seconds, boot program is loaded. Otherwise, online program will
be loaded from the flash memory.
```

Step 11 Press the **Esc** key within three seconds and the BOOT# prompt appears on the terminal console screen.

Note   The Alarm LED lights up when the system detects an alarm. If the red alarm LED lights up, refer to the section "Alarms" in the chapter "Troubleshooting" in the *Cisco LightStream 100 User Guide* for information about how to resolve the alarm.

Upgrading the Software

This section explains how to install Software Release 2.5 on a DOS-based or UNIX-based TFTP server and download the software to the new processor card.

Installing the Software

Software Release 2.5 is available on the diskettes that shipped with the processor card upgrade or from Cisco Information Online (CIO).

Using a DOS-Based TFTP Server

To install the software from the diskettes on a DOS-based TFTP server, follow these steps:

Step 1 Insert the first diskette (labeled 1 of *x*) into the 3.5-inch diskette drive.

Step 2 Create a TFTP boot directory. The software must be installed in a TFTP boot directory.

Step 3 Enter *A*: **install**. Replace **A** with the drive letter of your 3.5-inch diskette drive. The **a_0251t.doc** and **a_0251t** files are installed in the \tftpboot directory.

Step 4 Enter **copy a:\ a_0251t** to extract the contents of the a_0251t file. The installation script installs the ab0251 boot file and load modules in the \a100\025-1 subdirectory, which is created automatically in the \tftpboot directory. The ab0251 boot file contains the absolute path of the load modules.

Note There are 18 load modules for Software Release 2.5.

Step 5 Enable TFTP on the server. Refer to the manual that accompanied your TFTP software for information about enabling TFTP.

Proceed with the section "Downloading the Software."

Using a UNIX-Based TFTP Server

This section provides guidelines for installing Software Release 2.5 from the diskettes that shipped with the processor card upgrade using a UNIX-based TFTP server. In the examples that follow, the command syntax might vary for your particular UNIX operating system. Refer to the instructions that accompanied your operating system software for command syntax.

Note This procedure assumes that TFTP is enabled on the server. Refer to the manual that accompanied your operating system for information about enabling TFTP.

To install the software from the diskettes on a UNIX-based TFTP server, follow these steps:

Step 1 Log in as root.

Step 2 Enter **cd /tftpboot** to change to the /tftpboot directory. The software must be installed in the /tftpboot directory.

Step 3 Enter **mount -rt pcfs /dev/fd0 /pcfs** to mount the first diskette as a PC file system.

Step 4   Enter **/pcfs//install.unx**. The README and A_0251t files are installed in the /tftpboot directory.

Step 5   Enter **/usr/bin/tar -xvf A_0251t** to extract the contents of the A_0251t file.

The installation script installs the A_0251 boot file and load modules in the /A100/025-1 subdirectory, which is created automatically in the /tftpboot directory by the installation script. The A_0251 boot file contains the absolute path of the load modules.

Note   There are 18 load modules for Software Release 2.5.

Step 6   Proceed with the section "Downloading the Software."

Using CIO

If you are a registered CIO user, you can obtain a copy of Software Release 2.5 by logging in to CIO and using TFTP to download the software to your server by entering the accesss code **25LS100**. Refer to the section "Cisco Information Online" at the end of this publication for instructions about accessing CIO.

Downloading the Software

After the software is installed on your TFTP server, you then download the software to Flash memory in the LightStream100.

To download the software to Flash memory, follow these steps at the LightStream100 console terminal:

Step 1   Enter the IP address of the TFTP server and absolute path of the boot file:

```
BOOT# set server SERVER_IP_ADDRESS PATH
```

In the following example, the TFTP server IP address is 170.65.255.122, and the absolute path of the boot file is /tftpboot/a100/AB0251:

```
BOOT# set server 170.65.255.122 /tftpboot/A100/AB0251
```

Step 2   Switch the IP address to:

```
BOOT# set ether SWITCH_IP_ADDRESS
```

Step 3   Set the default router address

```
BOOT# set router DEFAULT_ROUTER_IP_ADDRESS
```

Note   The following **set boot** command will erase the current configuration on the switch.

Step 4   Set the boot mode:

```
BOOT# set boot initialize
```

Step 5 Reset the LightStream100:

```
BOOT# exit
```

The LightStream100 is reset, and messages similar to the following appear on the console
terminal:

```
Network boot is in progress.
</tftpboot/A100/025-1/AB0251>..
</tftpboot/A100/025-1/Itron>...
</tftpboot/A100/025-1/usdb>...
</tftpboot/A100/025-1/resserv>..
</tftpboot/A100/025-1/Mstart>..
</tftpboot/A100/025-1/Mrsc>...........
</tftpboot/A100/025-1/Mdse>...............................
</tftpboot/A100/025-1/Mgwd>........................................
</tftpboot/A100/025-1/Miom>..........................
</tftpboot/A100/025-1/Mpath>..........................................
</tftpboot/A100/025-1/Mns>.............
</tftpboot/A100/025-1/Msnmpd>.......................
</tftpboot/A100/025-1/Mdebug>..
</tftpboot/A100/025-1/Mscmpw>..
</tftpboot/A100/025-1/Mconfig>..
</tftpboot/A100/025-1/Mscmod>................
</tftpboot/A100/025-1/Mscmod2>....
</tftpboot/A100/025-1/Msyscis>..
</tftpboot/A100/025-1/Mcrc>..
CRC check is in progress ...........OK.
Flash memory save is in progress
................................................................................
................................................................................
................OK.
The system is coming up now.
If you want to enter boot program, push [ESC] key immediately.
If the [ESC] key is detected within 3 seconds, boot program is loaded.
Otherwise, online program will be loaded from the flash memory.

Cisco Systems, Inc. ATM LightStream 100 (Formerly known as Hyperswitch A100)
LS100 Software Version 2.5(2)
Boot ROM Version K02 22 Mar 95
ATMSIG Version 2.5(0.4) 28 July 95: 0436

!!!

Hardware Configuration:
CPU Board     :  OK;
Bus Convertor :  OK;
Switch Core   :  OK;
Gateway PAD   :  OK;
Slot 0: OC-3C(MMF)              OK;
Slot 1: Not Installed;
Slot 2: OC-3C(MMF)              OK;
Slot 3: Not Installed;
Slot 4: OC-3C(MMF)              OK;
Slot 5: Not Installed;
Slot 6: OC-3C(MMF)              OK;
Slot 7: Not Installed;
Slot 8: OC-3C(MMF)              OK;
Slot 9: Not Installed;
Slot10: OC-3C(MMF)              OK;
Slot11: Not Installed;
Slot12: Not Installed;
Slot13: Not Installed;
Slot14: Not Installed;
Slot15: Not Installed;
```

```
System initialization Complete

passwd=c>
```

The dots (. . .) indicate that the software is downloading from the TFTP server to Flash memory in the LightStream100. The entire process might take a few minutes. When the `passwd=c>` prompt appears, the LightStream100 is ready to configure.

Verifying the Installation

To verify that Software Release 2.5 is installed and running, in enabled mode, enter the **show version** command on the LightStream100 console terminal. Messages similar to the following appear:

```
Cisco Systems, Inc. ATM LightStream 100 (Formerly known as Hyperswitch A100)
LS100 Software Version 2.5(2)
Boot ROM Version K02 22 Mar 95
ATMSIG Version 2.5(0.4) 28 July 95: 0436
```

Make sure that Software Version 2.5 appears in the command output.

Cisco Information Online

Cisco Information Online (CIO) is Cisco Systems' primary, real-time support channel. 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`.

- Modem: From North America, 408 526-8070; from Europe, 33 1 64 46 40 82. Use the following terminal settings: VT100 emulation; databits: 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`.

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`.