Flash Loading

This appendix explains how to load new software into the flash EPROMs on the cards in a LightStream 2020 multiservice ATM switch (LS2020 switch). Flash memory contains card initialization software, power-on self-tests, and the SWACC loader, which loads software from the hard disk into the card when the card powers up.

Whenever you install a new line card, switch card, or network processor (NP) in a LightStream 2020 switch, do the following:

- Use the "Verifying Flash" procedure in this appendix to determine whether the contents of the new card's flash is up to date.
- If the new card's flash is not up to date, reload it as described in the section "Reloading Flash."

Verifying Flash

After installing a new card, follow these instructions to find out whether the content of the card's flash memory is up to date.

- **Step 1** Log in to the primary NP as root.
- **Step 2** To display the flash checksums of all the cards in the chassis, enter:

```
LSnode:2# sysver -a | more
```

- **Step 3** Refer to your *LightStream 2020 Release Notes* for a list of the correct checksums for your software version.
- **Step 4** If the checksum displayed for the new card matches the one listed in the release notes, stop here—the flash is up to date. If the checksum does not match, use the procedure in the following section, "Reloading Flash," to load an up-to-date flash image into the card.

Reloading Flash

If the "Verifying Flash" procedure above reveals that you have out-of-date flash contents on an NP, line, or switch card, follow this procedure to reload flash on that card.

- **Step 1** Warn anyone who relies on this LS2020 system that it is about to go out of service. (The outage will probably last only a few minutes.)
- **Step 2** If you have not already done so, log in to the primary NP console as root.

Step 3 Enter the following command to load the new image into flash memory:

```
LSnode:2# fcload -s <slot#> -flash -force
```

- <slot#> represents the slot number of the card with the incorrect flash checksum.
- **Step 4** Repeat the "Verifying Flash" procedure at the beginning of this appendix. If the card still has an incorrect flash checksum, contact your customer support representative.