Updating the Catalyst 3920 Software

As enhancements are made to the Catalyst 3920, you may need to update the software, or microcode, that is contained in the Catalyst 3920. This chapter describes how to upgrade the Catalyst 3920 flash electrically erasable programmable read-only memory (EEPROM).

> **Caution**   After downloading the new software you must reset the switch. The Catalyst 3920 is not operational while it is resetting. Before starting this procedure, make sure the network will not be effected.

The download procedures depend on the download method you choose. This chapter provides information about the following:

- TFTP Considerations
- Downloading New Code via TFTP
- Storing and Retrieving Configuration Parameters via TFTP
- Downloading via a Serial Link
- Downloading via the System Request Menu

TFTP Considerations

When using TFTP to update the Catalyst 3920 software, remember the following:

- Do not configure multiple TFTP servers to download code updates using TFTP to a single Catalyst 3920 (or to multiple VLANs).
- If the download is interrupted or corrupted, you must download a new image using the serial port download. For more information on updating software via the serial link, refer to the "Downloading via a Serial Link" section.
- If the network broadcast traffic is 200 packets per second or more, the TFTP request might not be initiated by the Catalyst 3920. You must reset the Catalyst 3920 and download a new image using the serial port download. For more information on updating software via the serial link, refer to the "Downloading via a Serial Link" section.

Downloading New Code via TFTP

You can use TFTP to update the main image of the Catalyst 3920. To perform a software download via TFTP, the Catalyst 3920 must have access to a TFTP server. Perform the following steps to download the software:

Step 1   Copy the binary file cat3900-main-gz.*x-y-z*.bin from CCO to the TFTP server and prepare the TFTP server.

Note   If you are coping the file from diskette, the name may differ due to DOS naming limitations.

Step 2   If you have not already done so, start a console session as described in the section "Planning for Configuration and Management."
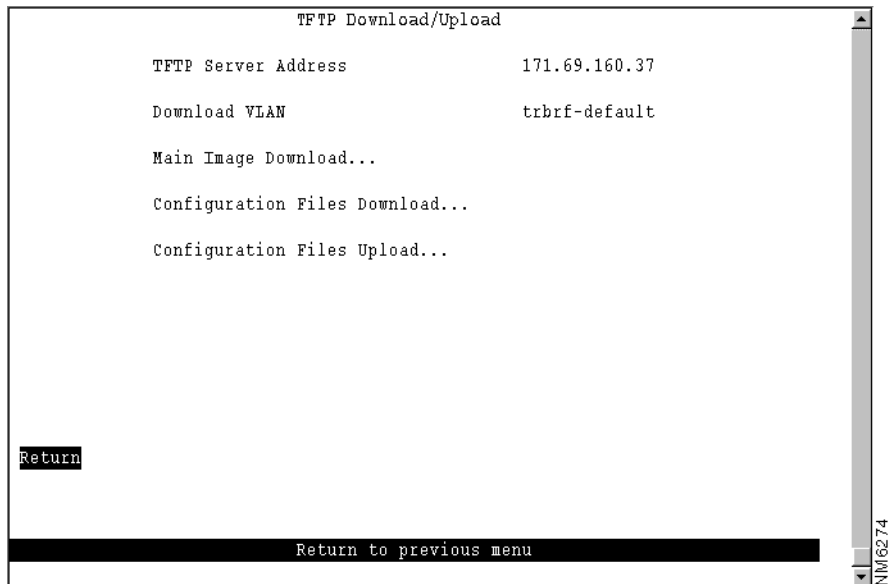
Step 3   Select **Download/Upload** on the Main Menu. The Download/Upload panel (Figure 9-1) is displayed.

Figure 9-1   Download/Upload Panel


```
                          Download/Upload                    ▲
                       Serial Link Download...

                       TFTP Download/Upload...




















 Return


                       Return to previous menu                ▼
```

Step 4   Select **TFTP Download/Upload**. The TFTP Download/Upload panel (Figure 9-2) is displayed.

Figure 9-2   TFTP Download/Upload Panel

```
                    TFTP Download/Upload                          ▲

       TFTP Server Address              171.69.160.37

       Download VLAN                    trbrf-default

       Main Image Download...

       Configuration Files Download...

       Configuration Files Upload...




 Return

                                                                 NM6274
                      Return to previous menu
 ▼
```
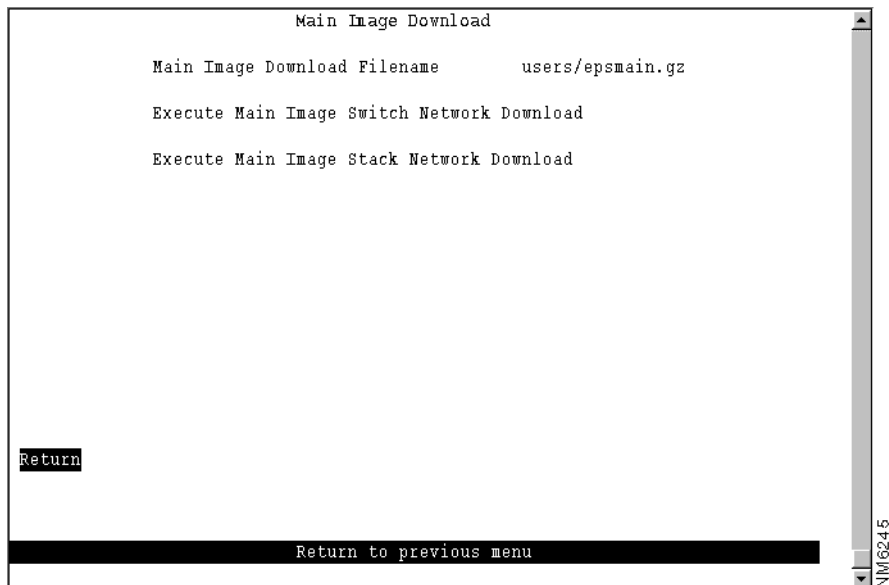
Step 5   Fill in the following fields:

- TFTP Server Address—IP address of the TFTP server.

- Download VLAN—Name of the TrBRF in which the TFTP server resides. The default is trbrf-default.

Step 6   Select **Main Image Download**. The Main Image Download panel (Figure 9-3) is displayed.

Figure 9-3   Main Image Download Panel

```
                    Main Image Download                           ▲

       Main Image Download Filename        users/epsmain.gz

       Execute Main Image Switch Network Download

       Execute Main Image Stack Network Download








 Return

                                                                 NM6245
                      Return to previous menu
 ▼
```

Step 7   Specify the path and filename as it exists on the TFTP server.

Step 8   Select **Execute Main Image Switch Network Download**. Or, if the switch is part of a stack, select **Execute Main Image Stack Network Download**.

Step 9   If the Catalyst 3920 is participating in a stack, you will be prompted to specify whether you want to download the new software to a single switch or to the entire stack.

Step 10   Enter **Y** or **N** to confirm the download when the following message is displayed:

```
Please confirm new code download via network (Y or N):
```

Note   Do not interrupt the download while it is writing to Flash or the image will be corrupted and need to be reloaded. While the Catalyst 3920 is writing to Flash the Mode LED will be blinking.

Step 11   Press **Enter** when you see the message:

```
Download complete - reset switch to activate new software.
Press <Enter> to continue......
```

Step 12   Reset the Catalyst 3920 to activate the new code by selecting Reset on the Main Menu panel or by pressing the Reset button.

Storing and Retrieving Configuration Parameters via TFTP

You can also use TFTP to store and retrieve the configuration parameters for the Catalyst 3920. To store and retrieve parameters, do the following:

Step 1   If you have not already done so, start a console session as described in the section "Planning for Configuration and Management."

Step 2   Select **Download/Upload** on the Main Menu. The Download/Upload panel (Figure 9-1) is displayed.

Step 3   Select **TFTP Download/Upload**. The TFTP Download/Upload panel (Figure 9-2) is displayed.

Step 4   Fill in the following fields:

- TFTP Server Address—IP address of the TFTP server.

- Download VLAN—Name of the TrBRF in which the TFTP server resides. The default is trbrf-default.

Step 5   Select the desired option.

To store the current configuration on the TFTP server, do the following:

- Select **Config Files Upload**. The Configuration Files TFTP Upload panel (Figure 9-4) is displayed.

Figure 9-4   Configuration Files TFTP Upload Panel

```
                    Configuration files TFTP Upload                    ▲

        Filename on the server                          c3900-01.1

        Execute Config File Switch Network Upload

        Execute Config File Stack Network Upload








Return




                          Return to previous menu
                                                                       ▼
```

- Specify the name that you want to use for storing the configuration information.

Note   If the switch is part of a stack, you should back up the configuration of each switch in the stack. The filenames for the configuration backups should be in the format *filename*.1, *filename*.2, *filename*.3 ... *filename*.x. Where *filename*.1 is the backup file for the configuration of switch 1 in the stack, *filename*.2 is the backup file for the configuration of switch 2 in the stack, and so forth.

- Select **Execute Config File Network Upload**. Or, if the switch is part of a stack, select **Execute Config File Stack Network Upload**.

To retrieve configuration information that has been stored on a TFTP server:

- Select **Config Files Download**. The Configuration Files TFTP Download panel (Figure 9-5) is displayed.

Figure 9-5   **Configuration Files TFTP Download Panel**

```
                    Configuration files TFTP Download

        Filename on the server                      c3900-01.1

        Execute Config File Switch Network Download

        Execute Config File Stack Network Download




    Return




                        Return to previous menu
```

- 3920Specify the name that was used in storing the configuration information.

- Select **Execute Config File Network Download**. Or, if the switch is part of a stack, select **Execute Config File Stack Network Download**.

Step 6   Confirm the download or upload.

Note Do not interrupt the download or upload while it is writing to Flash or the information will be corrupted. While the Catalyst 3920 is writing to Flash the Mode LED will be blinking.

Step 7   Press **Enter** when you see the message:

```
Download complete - reset switch to activate new software.
Press <Enter> to continue......
```

Step 8   Reset the Catalyst 3920 to activate the new code by selecting the Reset option on the Main Menu panel or by pressing the Reset button.

Downloading via a Serial Link

You can use the serial link to update the main image of the Catalyst 3920. To perform a software upgrade through the serial port, your terminal emulator must support the Xmodem protocol. To download software through the serial port, do the following:

Step 1   Insert the upgrade disk in your terminal drive.

Step 2   If you have not already done so, start a console session as described in the "Planning for Configuration and Management" section.

Step 3   Select **Download/Upload** on the Main Menu. The Download/Upload panel (Figure 9-1) is displayed.

Step 4   Select **Serial Link Download**. The Serial Link Download panel (Figure 9-6) is displayed.

Figure 9-6   Serial Link Download Panel

```
                          Serial Link Download                         ▲

                       Main Image Download




 Return


                       Return to previous menu                         ▼
```

Step 5   Select **Main Image Download**.

Step 6   Confirm the download. The download takes approximately 12 minutes at 9600 baud.

When the download is complete, the following messages appear:

```
Console: Beginning Xmodem download of main image
Console: Waiting for binary file.... Done
Console: Preparing Flash....Done.
Console: Saving Main Image into Flash...Done
Please confirm switch reset (Y or N):
```

Step 7   Enter **Y** to confirm the reset. The procedure is complete.

Downloading via the System Request Menu

This section provides information on initiating the download procedure with the System Request Menu.

Note   This function should be used only with the direction of Cisco service personnel.

Follow these steps to begin a software upgrade:

Step 1   If you have not already done so, start a console session as described in the "Planning for Configuration and Management" chapter and advance to the Copyright panel.

Step 2   Press the System Request button (SYSREQ). The System Request Menu is displayed.

Step 3   Select your download option from the console.

Step 4   The following messages appear:

```
SYSREQ: Beginning Xmodem download of main (or boot) image
SYSREQ: Waiting for binary file....
```

Step 5 Use a terminal emulator program on your PC to download the binary file using Xmodem protocol. The download takes approximately 12 minutes at 9600 baud.

When the download is complete, the following messages appear:

```
SYSREQ: Beginning Xmodem download of main image
SYSREQ: Waiting for binary file.... Done
SYSREQ: Preparing Flash....Done.
SYSREQ: Saving Main Image into Flash...Done
SYSREQ: Press any key to return to System Request menu.
```

Step 6 Once the download is complete, press any key.

Step 7 On the System Request Menu, select **Reset the system** to reset the Catalyst 3920.