

Troubleshooting

This chapter provides the following information for troubleshooting problems.

- Understanding POST Results
- Recovering from Corrupted Software
- Recovering from a Lost or Forgotten Password
- Upgrading the Module Software

Understanding POST Results

When an ATM module is installed in a Catalyst 2900 XL switch that is powered on, the expansion slot LED on the switch and the LED on the ATM module are green, and the module POST starts automatically. If the ATM module passes the POST, the expansion slot LED remains green; if the module fails, the LED turns amber. The “Physical Description” section of the “Overview” chapter describes how to use the module LEDs to interpret the POST failures for the ATM module.

If the module LED does not illuminate, use Table 4-1 to determine the appropriate corrective action.

Table 4-1 Troubleshooting the ATM Module Installation

Symptom	Possible Cause	Corrective Action
Module LED is off.	No cable connected.	Connect both ends of a cable to a device.
	Device has no power.	Ensure that both devices have power.

Table 4-1 Troubleshooting the ATM Module Installation (Continued)

Symptom	Possible Cause	Corrective Action
	Wrong cable type.	Verify the cable type. The ATM 155 MM Fiber module typically uses an orange fiber-optic cable and the ATM 155 SM Fiber module typically uses a yellow fiber-optic cable; the ATM 155 UTP module uses Category 5 UTP cable.
	Bad cable.	Replace with known good cable.
Switch expansion slot LED is off.	Module not installed properly.	Remove module and reinstall.

Recovering from Corrupted Software

Module software can be corrupted. If the software is corrupted, the module does not pass POST, and there is no connectivity. Use the following procedure to recover from a corrupt or wrong image file:

Step 1 At the switch prompt, change to privileged EXEC mode by entering the **enable** command:

```
Switch> enable
```

Step 2 Enter the switch password, if applicable.

```
Password: <password>  
Switch#
```

Step 3 Enter the **copy** command to copy the image.

```
Switch# copy tftp://server//filename slot1:boot
```

If this command is successful, go to the next step. Otherwise, skip Step 4 and go to Step 5.

Step 4 Restart the module using the following command:

```
Switch# hw-module 1 restart
```

If this Step is successful, the remaining Steps are not necessary. Otherwise, go to Step 5.

Step 5 (Optional) If Steps 1 through 4 did not provide successful results, enter the following command to ensure that the defective IOS image does not come up:

```
Switch# hw-module 1 maint
```

Using this command allows you to bypass the IOS image and connect to the module through the boot loader when you restart the module.

Step 6 Restart the module using the following command:

```
Switch# hw-module 1 restart
```

Step 7 (Optional) Enter the **copy** command to copy the image.

```
Switch# copy tftp://server//filename slot1:boot
```

Step 8 (Optional) Restart the module by entering the following command:

```
Switch# hw-module 1 restart
```

Step 9 If there is still a problem, do one of the following:

- Restart the switch by entering the **reload** command.

```
Switch> reload
```

- Ensure that there is enough space available on the module by entering the **dir** command.

```
Switch> dir slot1:
```

```
Switch> dir slot2:
```

Recovering from a Lost or Forgotten Password

Follow the steps in this procedure if you have forgotten or lost the module password.

Step 1 At the switch prompt, change to privileged EXEC mode by entering the **enable** command:

```
Switch> enable
```

Step 2 Enter the switch password, if applicable.

```
Password: <password>  
Switch#
```

Step 3 Rename the configuration file as shown in the following example:

```
Switch# rename slot1:config.text slot1:config.text.old  
  
Switch# rename slot2:config.text slot2:config.text.old
```

Step 4 Restart the switch and module by entering the following command at the switch prompt:

```
Switch# reload
```

Step 5 At the switch prompt, change to privileged EXEC mode by entering the **enable** command:

```
Switch> enable
```

Step 6 Enter the switch password, if applicable.

```
Password: <password>  
Switch#
```

Step 7 Start a session on the module:

```
Switch# session  
ATM#
```

Step 8 At the module prompt, change to configuration mode by entering the **configure terminal** command.

```
ATM# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
ATM(config)#
```

Step 9 Rename the configuration file to its original name by entering the **rename** command:

```
ATM# rename flash:config.text.old flash:config.text
```

Step 10 Copy the configuration file into memory with the **copy** command:

```
ATM# copy flash:config.text system:running-config
Source filename [config.text]?
Destination filename [running-config]?
ATM(config)#
```

Press **Return** in response to the confirmation prompts. The configuration file is now reloaded, and you can use the normal commands to change the password.

Step 11 Enter the enable password command to change the password:

```
ATM(config)# enable <password string>
ATM#
```

(where *string* is the password)

Step 12 Exit configuration mode by using the **end** command.

```
ATM# end
```

Step 13 Enter the **write mem** command to save the configuration.

```
ATM# write mem
```

The new password is now included in the startup configuration.

Upgrading the Module Software

New ATM module software releases can be downloaded from Cisco Connection Online, the Cisco Systems customer web site.

Downloading Files from CCO

Follow these steps to download the new software and TFTP server application:

Step 1 Display the Cisco home page by pointing your browser to one of the following URLs:

`http://www.cisco.com`

`http://www-china.cisco.com`

`http://www-europe.cisco.com.`

Step 2 Log into CCO. You might need to register the first time you log in.

Step 3 To locate the software files from the home page, select **Service and Support > Software Center > Cisco IOS Software > Cisco IOS 12.0 > 2900atm**.

Step 4 Follow the instructions on the page to download the IOS image.

Step 5 Follow the instructions on the page to download and configure the TFTP server.

Displaying the IP Address of the TFTP Server

Before you can download new software to your module, you need to enter the IP address of your PC or workstation on the System Management page. If you are running the Cisco TFTP server, the PC IP address is displayed on the application title bar.

If you do not know the IP address, follow these steps to display it:

- For a Windows NT system, enter the command **ipconfig** at the DOS prompt.
- For a Windows 95 system, enter the command **winipcfg** from the Windows **Start > Run** menu.
- From a UNIX workstation, enter **ifconfig -a** or look at the `/etc/hosts` file.

Upgrading the Software Using the CLI

Follow these steps to upgrade the module software:

- Step 1** At the switch prompt, change to privileged EXEC mode by entering the **enable** command:

```
Switch> enable
```

- Step 2** Enter the switch password, if applicable.

```
Password: <password>  
Switch#
```

- Step 3** Enter the **copy** command to copy the image in slot 1 or slot 2.

```
Switch# copy tftp://server//filename slot1:boot
```

```
Switch# copy tftp://server//filename slot2:boot
```

Note When copying the image, Cisco recommends that you overwrite the old file. This decreases potential problems in the future when you restart the module. When the module restarts, it uses the first image it finds.

- Step 4** Restart the switch using the **reload** command:

```
Switch# reload
```

Upgrading the Software Using CVSM

To upgrade the module software using CVSM, do the following from the CVSM System Configuration page:

Note To avoid errors during the upgrade process, close all other CVSM pages.

- Step 1** In the **Combined Cisco IOS and Visual Switch Manager Upgrade** section, enter the IP address of your TFTP server into the **Server IP Address** or **Name of TFTP Server** field.

Upgrading the Module Software

Step 2 In the **Cisco ATM Upgrade Filename** field, enter the name of the image file that you downloaded from CCO.

This might be a name like C29atm-m-m-120-2.bin. Do not enter the path.

Step 3 Click **Upgrade ATM Module on Slot 1** or **Upgrade ATM Module on Slot 2**.

The upgrade can take several minutes. The TFTP server window displays a successful message when the upgrade is complete.

Step 4 Click **Reboot System** to restart the switch.