



Troubleshooting

Your Cisco 2600 series router goes through extensive testing and burn-in before leaving the factory. If you encounter problems, use the information in this appendix to help isolate problems or to eliminate the router as the source of the problem.

- [Isolating Problems, page A-1](#)
- [System Messages, page A-4](#)
- [Recovering a Lost Password, page A-4](#)
- [Cisco Technical Assistance Center, page A-4](#)



Note

To troubleshoot a network module, refer to the [Cisco Network Modules Installation Guide](#); to troubleshoot a WAN interface card, refer to the [Cisco Interface Cards Installation Guide](#).

If you cannot locate the source of the problem, contact a customer service representative for information on how to proceed. For information about obtaining technical support, see the [“Obtaining Technical Assistance” section on page xviii](#). Before you call, have the following information ready:

- Chassis type and serial number
- Maintenance agreement or warranty information
- Type of software and version number
- Date you received the new chassis
- Brief description of the problem
- Brief explanation of the steps you have taken to isolate the problem

Isolating Problems

The key to problem solving is to isolate the problem to a specific subsystem by comparing what the router is doing to what it should be doing.

The LEDs on the front and rear panel of the router enable you to determine router performance and operation. For a description of these LEDs, see the [“Reading the Front-Panel LEDs” section on page 1-3](#) and the [“Reading the Rear-Panel LEDs” section on page 1-5](#).

When problem solving, consider the following subsystems:

- Power and cooling systems—External power source, power cable, router power supply and circuit breaker, and router blower and fan. Also consider inadequate ventilation or air circulation.

- Modules—LEDs on the modules can help identify a failure.
- Cables—External cables that connect the router to the network.

Troubleshooting the Power and Cooling Systems

Both the system LED and the fans can help you troubleshoot a power problem. Check the following items to help isolate the problem:

- With the power switch on, does the system LED stay on or blink?
 - If the LED is green, the router is receiving power and is functional.
 - If the LED is off, check the power source and power cable.
- With the power switch on and the system LED on, do the fans operate?
 - If no, check the fans.
- With the power switch on and the system LED off, do the fans operate?
 - If yes, the router is receiving power. The fans are connected directly to the DC outputs of the power supply.
 - If no, check the power source and power cable.
- Does the router shut down after being on a short time?
 - Check for an environmentally induced shutdown. See the [“Environmental Reporting Features” section on page A-2](#).
 - Check the environmental site requirements in the [“General Site Requirements” section on page 2-3](#).
 - Check for a power supply failure by inspecting the system LED on the front panel. If the system LED is on or blinking, the power supply should be functional.
- Router partially boots, but LEDs do not come on.
 - Check for a power supply failure by inspecting the system LED on the front panel of the router. If the system LED is on, the power supply is functional.
 - If the system LED is not on, refer to the warranty information in the quick start guide that shipped with your router, or contact customer service. The quick start guide is also available on the Cisco Documentation CD-ROM and online.

Environmental Reporting Features

If the router is operating at an abnormally high temperature, you see the following message on the console screen:

```
%SYS-1-OVERTEMP: System detected OVERTEMPERATURE condition. Please resolve cooling problem immediately!
```

Some causes of abnormally high router temperature are:

- Fan failure
- Air conditioner failure in the room
- Air blockage to cooling vents

Take steps to correct the problem. See also the [“Site Environment” section on page 2-3](#), and the [“Equipment Racks” section on page 2-4](#).

Troubleshooting Modules, Cables, and Connections

Network problems can be caused by a module; cables or cable connections; or external devices such as a modem, transceiver, hub, wall jack, WAN interface, or terminal. Check for the following symptoms to help isolate the problem:

**Tip**

All the documents mentioned in this section are available both on the Documentation CD-ROM and online.

- Module is not recognized by the router.
 - Make sure that the module is firmly seated in its slot.
 - Check the LEDs on the module. Each module has its own set of LEDs. For information on these LEDs, refer to the online publication [Cisco Network Modules Installation Guide](#).
 - Make sure that you have a version of Cisco IOS software that supports the network module. Check the [Cisco Network Modules Installation Guide](#) or accompanying configuration note for the affected module's software requirements.
- Module is recognized, but interface ports do not initialize.
 - Make sure that the module and interface card are firmly seated in their slots.
 - Check external cable connections.
 - Make sure that you have a version of Cisco IOS software that supports the network module and interface card. Check the [Cisco Network Modules Installation Guide](#) and the [Cisco Interface Cards Installation Guide](#) or accompanying configuration notes for the affected network module's and interface card's software requirements.
- Router does not boot properly, or constantly or intermittently reboots.
 - Make sure that all modules are firmly seated in their slots.
 - Check the router chassis or software. Refer to the warranty information in the quick start guide that shipped with your router, or contact customer service.
- Router boots, but the console screen is frozen.
 - Check the external console connection.
 - Verify that the parameters for your terminal are set as follows:
 - (a) The same data rate as configured for the router (9600 bps is the default)
 - (b) 8 data bits
 - (c) No parity generated or checked
 - (d) 1 stop bit
- Router powers on and boots only when a particular module is removed.
 - Check the module. Refer to the warranty information in the quick start guide that shipped with your router, or contact customer service.
- Router powers on and boots only when a particular cable is disconnected.
 - There may be a problem with the module or cable. Refer to the warranty information in the quick start guide that shipped with your router, or contact customer service.

System Messages

This section describes system error and recovery messages that may appear when operating a Cisco 2600 series router. Error messages for Cisco 2600 series routers powered by the Cisco redundant power system are described in the publication *Cisco RPS Installation Guide*.

The Cisco IOS software displays system error and recovery messages on an external device console terminal screen. (For more information, see the “[Connecting to a Console Terminal or Modem](#)” section on page 3-20.)

The terminal should display one of the following prompts:

Router> (indicates user EXEC mode)

or

Router# (indicates privileged EXEC mode)

The Cisco IOS software checks the system condition once every 30 seconds. If the condition still exists, the system error message reappears; if the system error condition has cleared, a recovery message appears.

To see descriptions of the system error and recovery messages and LED conditions that might accompany them, refer to the *Cisco IOS System Error Messages* online document at the following URL:

<http://www.cisco.com/univercd/cc/td/doc/product/software/ios122/122sup/122sems/semsvol1/emfbgp.htm#xtocid10>

Recovering a Lost Password

You can recover a lost enable password, but an enable secret password is encrypted and is not recoverable. If you lose an enable secret password that is configured on your router, you can replace it with a new enable secret password.

For password recovery and replacement procedures for the Cisco 2600 series routers, refer to the *Password Recovery Procedure for the Cisco 2600 Series Routers* document at the following URL:

http://www.cisco.com/warp/public/474/pswdrec_2600.shtml

Cisco Technical Assistance Center

The following link connects you to release notes, field notices, security advisories, and troubleshooting information maintained by the Cisco Technical Assistance Center (TAC):

http://www.cisco.com/pcgi-bin/Support/browse/psp_view.pl?p=Hardware:2600&s=Troubleshooting