Troubleshooting

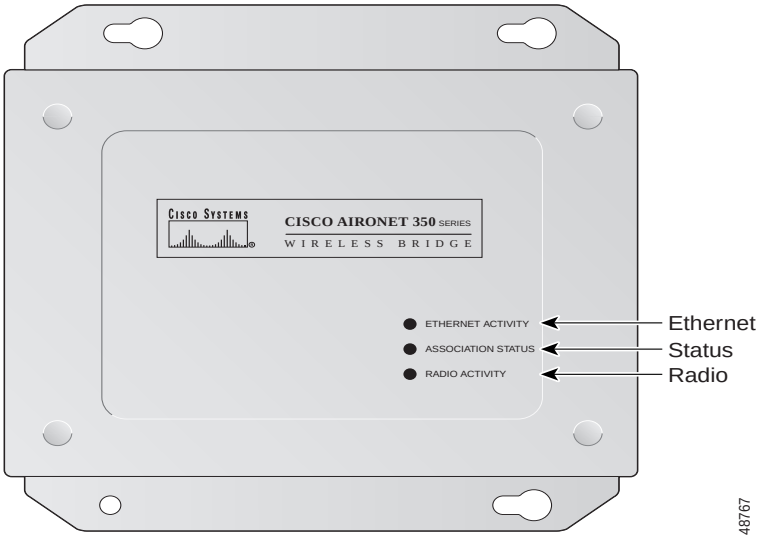
This chapter provides troubleshooting procedures for basic problems with the bridge. For the most up-to-date, detailed troubleshooting information, refer to the Cisco TAC website at http://www.cisco.com/tac. Select **Wireless LAN** under Top Issues.

Sections in this chapter include:

Checking the Top Panel Indicators

If your bridge is not communicating, check the three indicators on the top panel. You can use them to quickly assess the unit's status. Figure 4-1 shows the indicators, and Table 4-1 lists the meanings of the indicator signals.

Figure 4-1 Indicator Lights on the Bridge



The indicator lights have the following meanings:

- The Ethernet indicator signals traffic on the wired LAN, or Ethernet infrastructure. This indicator blinks green when a packet is received or transmitted over the Ethernet infrastructure.
- The status indicator signals operational status. Blinking green indicates that the bridge is operating normally but is not associated with any wireless devices. Steady green indicates that the bridge is associated with a wireless client.

  For repeater bridges, blinking 1/2 on, 1/2 off indicates the repeater is not associated with the root bridge; blinking 7/8 on, 1/8 off indicates that the repeater is associated with the root bridge but no client devices are associated with the repeater; steady green indicates that the repeater is associated with the root bridge and client devices are associated with the repeater.
- The radio indicator blinks green to indicate radio traffic activity. The light is normally off, but it blinks green whenever a packet is received or transmitted over the bridge's radio.

Table 4-1 Top Panel Indicator Signals

Message Type	Radio Indicator	Status Indicator	Ethernet Indicator	Meaning
Association status		Steady green		At least one wireless client device is associated with the unit.
		Blinking green		Not associated with a wireless device. Check the device SSID and WEP encryption key settings. Verify that all wireless devices have identical settings.

Table 4-1 Top Panel Indicator Signals (continued)

Message Type	Radio Indicator	Status Indicator	Ethernet Indicator	Meaning
Operational	Blinking green	Steady green		Transmitting/receiving packets over radio.
		Steady green	Blinking green	Transmitting/receiving packets over Ethernet.
	Blinking amber	Steady green		Maximum retries or buffer-full condition occurred on the radio because it is unable to transmit all the data packets. The bridge might be overloaded, or radio reception might be poor. Contact technical support for assistance if necessary.
Error/warning		Steady green	Blinking amber	Transmit/receive errors. Contact technical support for assistance if necessary.
		Blinking amber		General warning.
Failure	Steady red	Steady red	Steady red	Firmware failure; disconnect power from the unit and reapply power. If the failure persists, contact technical support for assistance.
Firmware upgrade		Steady red		Unit is loading new firmware.

Checking Basic Settings

Mismatched basic settings are the most common causes of connectivity problems with wireless clients and bridge-to-bridge or bridge-to-access point connections. If the bridge does not communicate with wireless devices, check the following settings.

SSID

Wireless devices attempting to associate with the bridge must use the same SSID as the bridge. The default SSID is *tsunami*.

WEP Keys

The WEP key you use to transmit data must be set up exactly the same on your bridge and any wireless devices with which it associates. For example, if you set WEP Key 3 on your wireless LAN adapter to 0987654321 and select it as the transmit key, you must also set WEP Key 3 on the bridge to exactly the same value.

Refer to the “Security Setup” section in Chapter 3 of the *Cisco Aironet 350 Series Bridge Software Configuration Guide* for instructions on setting the bridge’s WEP keys.

Encryption Enabled/Disabled

Verify that the wireless devices are using the same encryption setting as the bridge. When encryption is enabled, the bridge uses 40-bit or 128-bit encryption. If enabled, the wireless device must support the same setting. If the wireless device does not support 40-bit or 128-bit encryption, you must disable encryption.

Device Out of Range

The bridge supports a limited communication distance with wireless clients. When a wireless client exceeds this distance, it cannot communicate reliably with the bridge. Indoors, this range is typically 150 feet at 11 Mbps or 350 feet at 1 Mbps when using an omnidirectional 2.2dBi antenna. However, internal building structures might interfere with radio communication, dramatically reducing communication distances.

If basic radio parameters in the bridge and the wireless client are set correctly, communication problems might be related to structural interference or distance from the bridge. To isolate these problems, move the wireless client close to the bridge (able to see the bridge antenna), and attempt to associate with the bridge.

Note If the bridge is using a high-gain omnidirectional or directional antenna, the antenna radiation pattern may prevent communications with close devices or devices on the edge of the radiation pattern. Typically, high-gain antennas compress the radiation pattern in some directions to increase the gain in other directions.

Resetting to the Default Configuration

If you forget the password that allows you to configure the bridge you might need to completely reset the configuration. Follow these steps to delete the current configuration and return all settings to the factory defaults.

Note The following steps reset *all* configuration settings to factory defaults, including passwords, WEP keys, the IP address, and the SSID. If you do not need to reset the entire configuration, use the Configuration Reset buttons on the System Configuration Setup page in the web-browser interface. Consult the *Cisco Aironet 350 Series Bridge Software Configuration Guide* for more information on the reset buttons in the web-browser interface.

Step 1 Use a straight-through cable with 9-pin male to 9-pin female connectors to connect the COM 1 or COM 2 port on your computer to the RS-232 port on the bridge.

Step 2 Open a terminal-emulation program on your computer.

Note These instructions describe HyperTeminal; other programs are similar.

Step 3 In the Connection Description window, enter a name and select an icon for the connection and click **OK**.

Step 4 In the Connect To window, select the port to which the cable is connected and click **OK**.

Step 5 In the Port Settings window, enter the following settings:

- **9600** baud,
- **8** data bits,
- **No** parity,
- **1** stop bit, and
- **Xon/Xoff** flow control

Step 6 Click **OK**, and press **Enter**.

Step 7 When the Summary Status screen appears, reboot the bridge by unplugging the power connector and then plugging it back in.

Step 8 When the bridge reboots and the Summary Status screen reappears, type **:resetall**, and press **Enter**.

Step 9 Type **yes**, and press **Enter** to confirm the command.

Note The **resetall** command is valid for only 2 minutes immediately after the bridge reboots. If you do not enter and confirm the resetall command during that 2 minutes, reboot the bridge again.

Step 10 After the bridge reboots and the Express Setup screen appears, reconfigure the bridge by using the terminal emulator or an Internet browser.