



Maintaining the Cisco Security Packet Analyzer 2400 Series Appliances

This chapter provides instructions for maintaining your Cisco Security Packet Analyzer 2400 series appliance.

These instructions are intended for technicians who are experienced with installing, replacing, and removing the hardware components from electronic devices and are familiar with the Cisco Security Packet Analyzer 2400 series appliances. Additionally, site planners, network administrators, and facility maintenance personnel might also find this chapter helpful.

This chapter contains the following sections:

- [General Maintenance Guidelines](#)
- [Reading the LEDs](#)
- [Replacing Appliance Components](#)
- [Removing or Replacing the Cisco Security Packet Analyzer 2400 Series Appliances](#)

General Maintenance Guidelines

For information about general maintenance tasks, see the *Preparing the Site* section in the *Cisco UCS Site Preparation Guide*.

Reading the LEDs

There are several LEDs on a Cisco Security Packet Analyzer 2400 series appliance. LEDs serve the following purposes:

- Indicate that basic power is available to the appliance
- Guide you to a broken adapter card, or to one that has failed its diagnostics
- Give an indication that traffic is flowing through the adapter card to the appliance

The LEDs on the front panel of the Cisco Security Packet Analyzer 2400 series appliance and corresponding adapter card are aids for determining appliance and adapter performance and operation.

This section describes the location and meaning of LEDs and buttons and includes the following topics:

- [Cisco Packet Analyzer 2400 LEDs](#)

- Reading the NIC LEDs
- Reading the AC Power Supply LED

Cisco Packet Analyzer 2400 LEDs

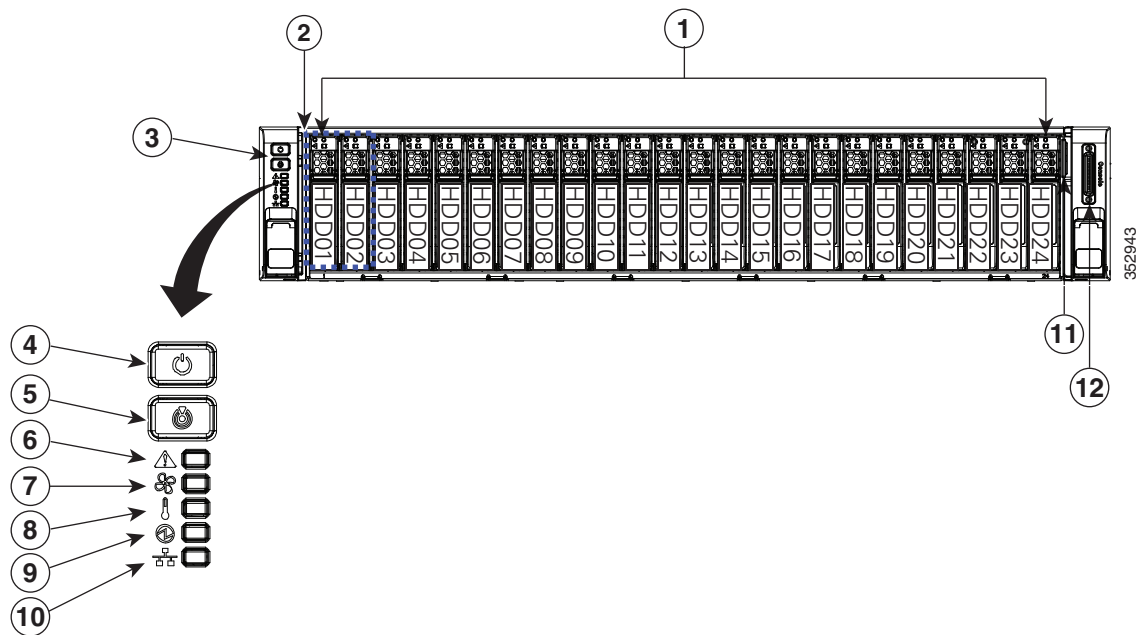
These sections describe the location and meaning of the LEDs for the Cisco Security Packet Analyzer 2400 appliance.

Cisco Security Packet Analyzer 2400

Packet Analyzer 2400

Figure 5-1 shows the front-panel LEDs for the Cisco Packet Analyzer 2400. Table below defines the LED states

Figure 5-1 Cisco Security Packet Analyzer 2400 Front-Panel LEDs



1	Drive bays 1–24 (up to 24 2.5-inch drives)	7	Temperature status LED
2	Operations panel buttons and LEDs	8	Power supply status LED
3	Power button/LED	9	Network link activity LED
4	Unit Identification button/LED	10	Pull-out asset tag
5	System status LED	11	KVM connector (used with KVM cable that provides two USB 2.0, one VGA, and one serial connector)
6	Fan status LED		

Table 5-1 Cisco Security Packet Analyzer 2400 Front-Panel LEDs

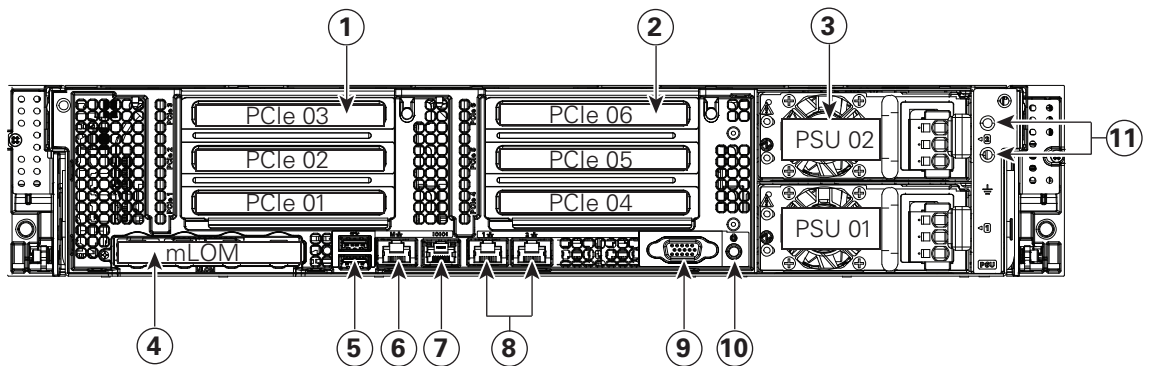
LED Name	State
Power button/Power status LED	<ul style="list-style-type: none"> • Off—There is no AC power to the appliance. • Amber—The appliance is in standby power mode. Power is supplied only to the CIMC and some motherboard functions. • Green—The appliance is in main power mode. Power is supplied to all appliance components.
Identification	<ul style="list-style-type: none"> • Off—The Identification LED is not in use. • Blue—The Identification LED is activated.
Cisco Security Packet Analyzer status	<ul style="list-style-type: none"> • Green—The appliance is running in normal operating condition. • Green, blinking—The appliance is performing system initialization and memory check. • Amber, steady—The appliance is in a degraded operational state. For example: <ul style="list-style-type: none"> – Power supply redundancy is lost. – CPUs are mismatched. – At least one CPU is faulty. – At least one DIMM is faulty. – At least one drive in a RAID configuration failed. • Amber, blinking—The appliance is in a critical fault state. For example: <ul style="list-style-type: none"> – Boot failed. – Fatal CPU and/or bus error is detected. – The appliance is in over-temperature condition.
Fan status	<ul style="list-style-type: none"> • Green—All fan modules are operating properly. • Amber, steady—One fan module has failed. • Amber, blinking—Critical fault, two or more fan modules have failed.
Temperature status	<ul style="list-style-type: none"> • Green—The appliance is operating at normal temperature. • Amber, steady—One or more temperature sensors have exceeded a warning threshold. • Amber, blinking—One or more temperature sensors have exceeded a critical threshold.
Power supply status	<ul style="list-style-type: none"> • Green—All power supplies are operating normally. • Amber, steady—One or more power supplies are in a degraded operational state. • Amber, blinking—One or more power supplies are in a critical fault state.

Table 5-1 Cisco Security Packet Analyzer 2400 Front-Panel LEDs (continued)

LED Name	State
Network link activity	<ul style="list-style-type: none"> Off—The Ethernet link is idle. Green—One or more Ethernet LOM ports are link-active, but there is no activity. Green, blinking—One or more Ethernet LOM ports are link-active, with activity.
Hard drive fault	<ul style="list-style-type: none"> Off—The hard drive is operating properly. Amber—This hard drive has failed. Amber, blinking—The device is rebuilding.
Hard drive activity	<ul style="list-style-type: none"> Off—There is no hard drive in the hard drive sled (no access, no fault). Green—The hard drive is ready. Green, blinking—The hard drive is reading or writing data.

Reading the Cisco Cisco Security Packet Analyzer 2400 Rear-Panel LEDs

Figure 5-2 shows the rear-panel LEDs for the Cisco Cisco Security Packet Analyzer 2400.

Figure 5-2 Cisco Security Packet Analyzer 2400 Rear-Panel LEDs

1	PCIe riser 1 (slots 1, 2, 3*) *Slot 3 not present in all versions.	7	Serial connector (RJ-45)
2	PCIe riser 2 (slots 4, 5, 6)	8	Two embedded (on the motherboard) Intel i350 GbE Ethernet controller ports (LAN1, LAN2)

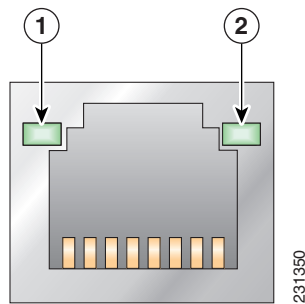
3	Power supplies (DC power supplies shown)	9	VGA video port (DB-15 connector)
4	Modular LAN-on-motherboard (mLOM) card slot	10	Rear Unit Identification button/LED
5	USB 3.0 ports (two)	11	Grounding-lug holes (for DC power supplies)
6	1-Gbps dedicated management port		

Table 5-3 Cisco Security Packet Analyzer 2400 Rear-Panel LEDs

LED Name	State
Power supply fault	<ul style="list-style-type: none"> Off—The power supply is operating normally. Amber, blinking—An event warning threshold has been reached, but the power supply continues to operate. Amber, solid—A critical fault threshold has been reached, causing the power supply to shut down (for example, a fan failure or an over-temperature condition).
Power supply AC OK	<ul style="list-style-type: none"> Off—There is no AC power to the power supply. Green, blinking—AC power OK, DC output not enabled. Green, solid—AC power OK, DC outputs OK.
1-Gb Ethernet dedicated management link speed	<ul style="list-style-type: none"> Off—link speed is 10 Mbps. Amber—link speed is 100 Mbps. Green—link speed is 1 Gbps.
1-Gb Ethernet dedicated management link status	<ul style="list-style-type: none"> Off—No link is present. Green—Link is active. Green, blinking—Traffic is present on the active link.
1-Gb Ethernet link speed	<ul style="list-style-type: none"> Off—Link speed is 10 Mbps. Amber—Link speed is 100 Mbps. Green—Link speed is 1 Gbps.
1-Gb Ethernet link status	<ul style="list-style-type: none"> Off—No link is present. Green—Link is active. Green, blinking—Traffic is present on the active link.
Identification	<ul style="list-style-type: none"> Off—The Identification LED is not in use. Blue—The Identification LED is activated.

Reading the NIC LEDs

Figure 5-3 shows the NIC 1 LEDs located on the rear of the Cisco Security Packet Analyzer appliance. These LEDs indicate the connection activity and speed of the NIC ports. Table 5-4 describes the activity and connection speed associated with each LED state.

Figure 5-3 NIC 1 LEDs**Table 5-4 NIC 1 LED Descriptions**

Location	LED	Color	State	Description
1	Left		Off	No network connection
		Green	Solid	Network connection
		Green	Blinking	Transmit/receive activity
2	Right		Off	10-Mb/s connection (if left LED is on or blinking)
		Green	Solid	100-Mb/s connection
		Amber	Solid	1000-Mb/s (or 1-Gb/s) connection

Reading the AC Power Supply LED

The rear of Cisco Security Packet Analyzer 2400 series appliances include LEDs that indicate the power status of the AC power supply. (See location 2 in [Figure 5-2](#).) [Table 5-5](#) describes the power status associated with the AC power supply LED.

Table 5-5 AC Power Supply LED

LED	Color	State	Description
Below AC power supply input connector		Off	No AC input power to power supply
	Green	Blinking	AC power applied to power supply and standby voltages are available
	Green	Solid	All power available
	Amber	Blinking	AC power supply warning due to overcurrent or overtemperature condition or slow fan
	Amber	Solid	AC power supply failed or shut down due to blown fuse, high overcurrent or overtemperature condition, or fan failure

Replacing Appliance Components

Table 5-6 lists the Field Replaceable Units (FRUs) of the Cisco Security Packet Analyzer 2400 series appliances.

Table 5-6 Cisco Cisco Security Packet Analyzer 2400 Appliances FRUs

Description	Notes
SFP, SFP+	See Replacing Transceiver Modules , page 5-7.
Hard Disk Drive, 1 TB	See Removing and Replacing a Hard Disk Drive , page 5-8.
AC Redundant Power Supply	See Installing or Replacing a Power Supply. , page 5-8.
Hard Disk, 2 TB for 2400	See Installing or Replacing a Power Supply. , page 5-8.
UCS PCIe NIC Card	See Installing or Removing a UCS PCIe NIC Card , page 5-7

Installing or Removing a UCS PCIe NIC Card

For information about installing or removing a UCS PCIe NIC Card in Cisco Security Packet Analyzer 2400 series appliances, see the [Replacing a PCIe Card](#) section in the *Cisco UCS C240 Server Installation and Service Guide* for Cisco Security Packet Analyzer 2400 appliance.

Replacing Transceiver Modules

To replace an SFP or an SFP+ transceiver module in a Cisco Security Packet Analyzer 2400 series appliance:

- Step 1** Locate the new transceiver module you plan to install, remove any protective packaging, and examine it for any signs of damage.
- Step 2** Determine which module you want to replace on the Cisco Security Packet Analyzer rear panel.
- Step 3** Remove the fiber optical cable from the module to be replaced.
- Step 4** With your finger, pull the latch down to release the module from its latched position (see [Figure 2-2](#)).
- Step 5** Using the latch, pull the SFP+ out of the appliance and place it in a safe location.
- Step 6** Insert the new SFP+ into the slot and slide it in until you feel resistance, then push the SFP+ harder until you feel (or hear) it click into its socket.
- Step 7** With your finger, pull the latch upwards to lock the SFP+ into its slot (see [Figure 2-3](#)).
- Step 8** Replace the fiber optical cable.



Note

If you use NIC card with RJ45 ports, do not install the transceiver modules.

Removing and Replacing a Hard Disk Drive

For information about replacing hard disk drives in Cisco Security Packet Analyzer 2400 series appliances, see the *Replacing Hard Drives or Solid State Drives* section in the *Cisco UCS C240 Server Installation and Service Guide* for Cisco Security Packet Analyzer 2400 appliance.

Customer should not swap any disk with another disk inside the same Packet Analyzer appliance. This will make the RAID unrecoverable and all data on the RAID will be lost.



Note

A single disk failure per RAID can be fixed in the field by replacing the failed disk with an exactly matching disk. You should not swap any disk with another disk inside the same Packet Analyzer appliance. It makes the RAID unrecoverable and all data on the RAID is lost.

Installing or Replacing a Power Supply.

For information about replacing power supplies in Cisco Security Packet Analyzer 2400 series appliances, see the *Replacing Power Suppliers* section in the *Cisco UCS C240 Server Installation and Service Guide* for Cisco Security Packet Analyzer 2400 appliance.

Removing or Replacing the Cisco Security Packet Analyzer 2400 Series Appliances

Always use the Packet Analyzer CLI command **shutdown** to shut down the Packet Analyzer application.



Warning

Power off the unit before you begin. Statement 237



Warning

Ultimate disposal of this product should be handled according to all national laws and regulations. Statement 1040

To remove a Cisco Security Packet Analyzer 2400 series appliance from your network, use the Packet Analyzer CLI command **shutdown** to shut down the Packet Analyzer application.

The appliance is in constant communication on your network, which means that when the network notices that the appliance is no longer responding to it, the network stops sending requests to the appliance. This change is transparent to users. If other appliances are attached to the network, the network continues sending requests to the other appliances.

To replace an appliance, remove it from the network. Then, install a new appliance and configure it using the same configuration parameters that you used for the removed appliance.