

# **Introducing the Cisco Security Packet Analyzer 2400 Series Appliance**

Cisco Packet Analyzer 2400 appliance which is based on UCS C240 server. The Cisco Security Packet Analyzer 2400 appliance has the option for one of three capture interface card types according to your requirement.

- 4x1GE optical
- 4x 1GE RJ45
- 2x 10GE Optical

This chapter contains the following sections:

- About the Cisco Security Packet Analyzer 2400 Series Appliance, page 1-1
- Summary of Appliance Features, page 1-7

# About the Cisco Security Packet Analyzer 2400 Series Appliance

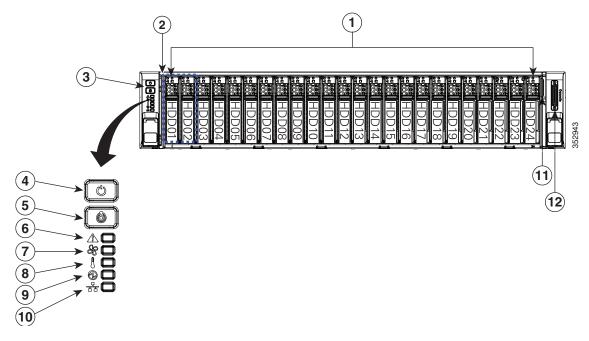
Cisco Security Packet Analyzer 2400—This model has three monitoring interfaces card types with an option to select one according to your requirement. This model receives collected data over up to four 1 GbE ports at a data rate of 1 Gb/s each or two 10 GbE ports at a data rate of 10 Gb/s each, uses fiber-optic or copper cables, and connects to the data collection devices with SFP, SFP+ or RJ-45 connectors. The data ports also support 1GbE SFP modules. The Cisco Security Packet Analyzer come preloaded with Cisco Prime Network Analysis Module software and are contained in a standard shelf-rack enclosure.

The following sections describe:

- Cisco Security Packet Analyzer 2400 Appliance Views and LEDs
- Input/Output Ports and Connectors
- KVM Console
- AC Power Supplies

## **Cisco Security Packet Analyzer 2400 Appliance Views and LEDs**

Figure 1-1 Cisco Security Packet Analyzer 2400 Appliance Front View



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		

For a description of the Cisco Packet Analyzer 2400 appliance front panel LEDs and their state definitions, see "Reading the LEDs" section on page 5-1.

PCIe 03
PCIe 05
PCIe 01
PCIe 04
PCIe 04
PCIe 04
PSU 01
PSU

Figure 1-2 Cisco Security Packet Analyzer 2400 Appliance Rear View

1	PCIe riser 1 (slots 1, 2, 3*)	7	Serial connector (RJ-45)
	*Slot 3 not present in all versions.		
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		

#### **Related Topics**

For Information About	See
Cisco Packet Analyzer 2400 rear panel LEDs and their state definitions	, page 5-4
NIC LEDs and their state descriptions	Reading the NIC LEDs, page 5-5
AC power supply LED and its state descriptions	Reading the AC Power Supply LED, page 5-6

#### **Input/Output Ports and Connectors**

The Cisco Packet Analyzer 2400 appliance support the following ports on the rear of the appliance:

• Packet Analyzer management port (LAN1, marked "1")

Additional ports include:

- The video connector is not required for normal day-to-day operation of the Packet Analyzer appliances.
- The built-in port labeled "M" is the Cisco Integrated Management Controller (CIMC) port.



You can either use a single connection on port "1" for both Packet Analyzer management and CIMC or use port "1" for Packet Analyzer management and port "M" for CIMC to connect them to different switches.

The Cisco Packet Analyzer 2400 series appliances use the following connector types:

Table 1-1 Packet Analyzer Series Connector Types

Appliance Model	Number of Ports	Connector	Required Cable Type
CISCO SECURITY PACKET ANALYZER2400-K9	4 or 2	• 1G SFP/RJ- 45 • 1G SFP/10 G SFP+ The data ports on the 2400 also support 1G SFP.	<ul> <li>Fiber optic or copper cables.</li> <li>Single-mode fiber or multi-mode fiber. For SFP cabling specifications, see <i>Installing the GBIC</i>, SFP, SFP+, and XFP Optical Modules in Cisco CPT and Cisco ONS Platforms, SFP and SFP+ Description and Specifications.</li> </ul>

#### Packet Analyzer Management Port (LAN 1)

The Cisco Security Packet Analyzer 2400 series appliances use the LAN 1 port, an integrated Ethernet controller (10/100/1000 Mb/s), as the management port. When you connect this port to a gateway, you enable management and Packet Analyzer application access to the Cisco Security Packet Analyzer 2400 series appliances.



Do not use the built-in port labeled "M", which is the Cisco Integrated Management Controller (CIMC) port, as the management port; the LAN 1 port provides additional functionality.



We recommend that you use no less than a Category 5e (or better) unshielded twisted-pair (UTP) cable for the management port connection.

To access the Ethernet port, connect a Category 5e (or better) unshielded twisted-pair (UTP) cable to the RJ-45 connector on the back of the appliance. (See Table 1-2). The appliance comes with an Ethernet RJ-45-to-RJ-45 yellow cable.

Table 1-2 **Ethernet Cabling Guidelines** 

Туре	Description
10BASE-T	EIA Categories 3, 4, or 5 UTP (2 or 4 pairs) up to 328 ft. (100 m)
100BASE-TX	EIA Category 5e (or better) UTP (2 pairs) up to 328 ft. (100 m)
1000BASE-T	EIA Category 6 (recommended), Category 5E or 5 UTP (or better) (2 pairs) up to 328 ft. (100 m)

#### **Serial (Console) Port Connector and Cable**

The Cisco Security Packet Analyzer 2400 series appliances use the RJ-45 serial port connector, which is located on the back of the appliance, to connect a console terminal (an ASCII terminal or PC running terminal-emulation software).

Use the thin, flat, RJ-45-to-RJ-45 rollover cable that comes with the appliance to connect the console port to an ASCII terminal or a PC running terminal-emulation software.

If you do not want to use the serial RJ-45 in the back, the Packet Analyzer appliance comes with a KVM connector that hooks to the front (see Figure 1-1). This connector splits off into two USB ports: a DB-9-male port and a DB15-female port. The Cisco Security Packet Analyzer 2400 series appliances is equipped with a DC power supply.

#### **Small Form-Factor Pluggable (SFP) Modules**

The Cisco small form-factor pluggable (SFP) and SFP+ transceiver modules are hot-swappable input/output (I/O) devices that plug into module sockets. The transceiver connects the electrical circuitry of the module with the optical or copper network.

#### **Related Topics**

For Information About	See
The transceiver types used by the SFP-based Cisco Security Packet Analyzer 2400 series appliances and their cable requirements	Table 1-2 on page 1-5
SFP transceivers	Cisco SFP Optics for Packet-Over-Sonet/SDH and ATM Applications
SFP+ transceivers	Cisco Small Form-Factor Pluggable Modules for Gigabit Ethernet Applications Data Sheet

#### **KVM** Console

The KVM console is an interface accessible from the Cisco UCS Manager GUI or the KVM Launch Manager that emulates a direct KVM connection. The KVM console allows you to view the serial console remotely without any connection to a terminal server. It also provides the "Virtual Media" feature used for recovery/ISO install.

If you want to use the KVM console to access the Packet Analyzer appliance, you must ensure that either the appliance or the service profile associated with the appliance is configured with a CIMC IP address. The KVM console uses the CIMC IP address assigned to an appliance or a service profile to identify and connect with the correct Packet Analyzer appliance.

- If the management subnet you are connected to has a DHCP server deployed, the CIMC will automatically receive an IP address. This address will be displayed during initial bootup and can be seen from a serial console connection or a VGA screen.
- If the management subnet you are connected to does *not* have a DHCP server, you must enter a static IP address by entering the CIMC configuration setup during bootup. To do this, press <F8> during initial bootup. After the address is set, the CIMC GUI and ssh connections will be available.

For more information about the KVM console, see the Starting the KVM Console section in the *Cisco UCS Manager GUI Configuration Guide*.

#### **AC Power Supplies**

The Cisco Security Packet Analyzer 2400 series appliances are equipped with a wide input range AC power supply that supports both 110-V and 220-V.

For more information about the power supplies shipped with the Cisco Security Packet Analyzer 2400 series appliances see the *Power Specifications* section in the Cisco UCS C240 Server Installation and Service Guide for Packet Analyzer 2400 appliance.



Blank faceplates and cover panels serve three important functions: they prevent exposure to hazardous voltages and currents inside the chassis; they contain electromagnetic interference (EMI) that might disrupt other equipment; and they direct the flow of cooling air through the chassis. Do not operate the system unless all cards, faceplates, front covers, and rear covers are in place. Statement 1029

There will not be any blanking panels for the power supplies but there will be blanking panels for the 16 disk configuration. The server has 24 disk slots, so with the 16 disk configuration, there will be 8 blanking panels.

# **Summary of Appliance Features**

## **Cisco Security Packet Analyzer 2400 Feature**

The Cisco Security Packet Analyzer 2400appliance, which is based on UCS C220 M4 server, includes these features:

CPUs	One Intel E5-2660 v3 (Haswell) 2.60 GHz 105W 10C/25MB Cache/DDR4 2133MHZ.
Memory	Two 32GB DDR4-2133-MHz LRDIMM/PC4-17000/quad rank/x4/1.2v.
Storage	24 2TB 2.5" enterprise class SAS 7.2K RPM HDD - two in RAID 1 for system and CDB files; the other six are in RAID 5 for capture.
Network and Management I/O	Cisco Security Packet Analyzer 2400 - 4x1G Napatech NT4E-4T-STD or NT4E-4-STD - Supports RJ-45 or 1G SFP modules. See section Small Form-Factor Pluggable (SFP) Modules, page 1-5
Disk Management	Cisco 12G SAS Modular Raid Controller with 4G flash-backed write cache module.
Optical Drive	None
Hardware Filters	None

Summary of Appliance Features