



# Introduction to the Cisco SCE 8000 GBE Platform

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## Introduction

This chapter provides an introduction to the Cisco SCE 8000 GBE platform, the Service Control hardware component.

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- [Service Control Module \(Cisco SCE 8000-SCM-E\), page 2-3](#)
- [Introduction to SIPs and SPAs, page 2-5](#)
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# Information About the Cisco SCE 8000 GBE Platform

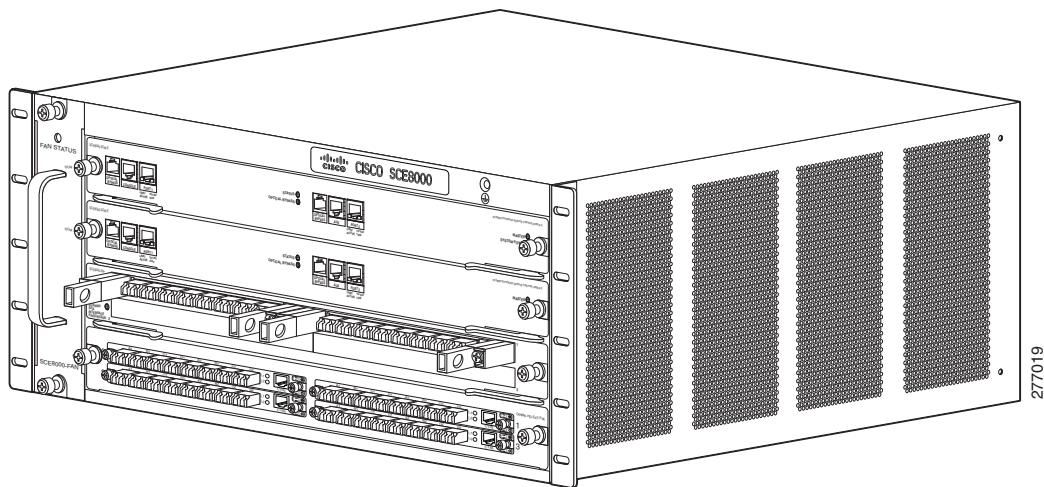
The Cisco Service Control Engine (Cisco SCE) platform, which is the hardware component of the Cisco Service Control solution, is designed to support observation, analysis, and control of Internet IP traffic. [Table 2-1](#) summarizes model information for the Cisco SCE 8000 GBE platform.

**Table 2-1 Cisco SCE Platform Model Information**

Link Type	Gigabit Ethernet
Number of Ports	8 or 16
Number of Links	4 or 8

The Cisco SCE 8000 GBE is a transparent element with up to eight GBE links service throughput. It can be installed inline in the network where the entire traffic passes through it or in receive-only mode where it receives replication of the traffic through SPAN ports or optical splitters (see [Figure 2-1](#)).

**Figure 2-1 Cisco SCE 8000 GBE Platform**



The Cisco SCE 8000 GBE supports the following network insertion models:

- single appliance (inline)
- single appliance (receive-only)
- cascade configuration

The Cisco SCE 8000 GBE platform is a 4-slot chassis hosting the following modules:

- One or two Service Control Modules (Cisco SCE 8000-SCM-E) that each contain special purpose fast path chipset, traffic processors, and control processor.
- One SPA Interface Processor card (Cisco SCE 8000-SIP) that holds up to four SPA interface modules.
- One optional optical bypass module hosting panel that holds a maximum of four optical bypass modules.

In addition, the Cisco SCE 8000 GBE chassis contains two power supply modules in a 1+1 configuration, as well as a fan tray module.

## Service Control Module (Cisco SCE 8000-SCM-E)

The Cisco SCE 8000 GBE contains one or two Cisco SCE 8000-SCMs located in slots 1 and 2 (the top two slots). If only one Cisco SCE 8000-SCM module is installed, it must be installed in slot 1.

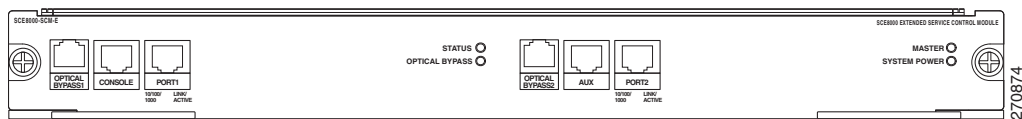
The Cisco SCE 8000-SCM in slot 1 performs the following functions:

- Service engine (Deep Packet Inspection [DPI]) and traffic processing
- Management interfaces and functionality
- Chassis control and management

The Cisco SCE 8000-SCM in slot 2 serves only DPI and traffic processing purposes, doubling the performance and capacity of the Cisco SCE 8000. Although the two modules are identical (with the same ports and LEDs), this second SCM module does not run chassis management or control software.

The Service Control module contains ports and LEDs as shown in [Figure 2-2](#), [Table 2-1](#), and [Table 2-2](#).

**Figure 2-2** Cisco SCE 8000-SCM-E



### Note

Although the Cisco SCE 8000-SCM module in slot 2 contains all the ports listed in [Table 2-2](#), these ports are not used. All connections should be made to the Cisco SCE 8000-SCM module in slot 1.

**Table 2-2** Cisco SCE 8000-SCM-E Ports

Port	Quantity	Description	Connect This Port To...
10/100/1000	2 (Port1 and Port2)	10/100/1000 Ethernet RJ-45 ports for management of the Cisco SCE 8000 GBE. CLI designation: interface GigabitEthernet 1/1, 1/2. OR interface MNG 01, 0/2	A LAN using a GBE cable with an RJ-45 connector.  If both interfaces are used to provide a redundant management interface, connect both ports to the LAN via a switch.
Console	1	RS-232 RJ-45 port used by technicians	A local terminal (console) using an RS-232 cable with an RJ-45 connector, as provided in the Cisco SCE 8000 GBE kit.
AUX	1	RS-232 RJ-45 port used by technicians	—
Bypass	2	RJ-11 port	The control connector on the optical bypass module.

**Table 2-3 Cisco SCE 8000-SCM-E LEDs**

LEDs	Description
Power	<ul style="list-style-type: none"> <li>Green—Installed power supplies are functioning normally.</li> <li>Amber—Only one power supply is functioning normally.</li> <li>Unlit—No power from either power supply.</li> </ul>
Status	<p>The Status LED indicates the operational status of the Cisco SCE 8000 GBE system, as follows:</p> <ul style="list-style-type: none"> <li>Unlit—No power from either power unit.</li> <li>Amber—System is booting up.</li> <li>Flashing amber—System is operational, but is in a warning state.</li> <li>Green—System is fully operational.</li> <li>Red—There is a problem or failure.</li> </ul> <p><b>Note</b> Alarms are hierarchical: Failure takes precedence over Warning, which takes precedence over Operational.</p>
Optical bypass	<ul style="list-style-type: none"> <li>Green—Optic bypass modules are present, but not operating.</li> <li>Amber—Optic bypass modules are present and operating.</li> <li>Unlit—Optic bypass modules are not present or there is no power.</li> </ul> <p>On a slave Cisco SCE 8000-SMC-E module (in slot 2), this LED is always off.</p> <p><b>Note</b> This functionality is consistent even when the Cisco SCE 8000 GBE is turned off.</p>
Master	<p>Master Service Control module indicator.</p> <ul style="list-style-type: none"> <li>Steady green—Master Service Control module (in slot 1)</li> <li>Unlit—Slave Service Control module (in slot 2)</li> </ul>
Port1 and Port2 (Management interfaces)	<p>Port1 and Port2 LEDs indicate the operational status of the Cisco SCE 8000 out-of-band LAN-based management port, as follows:</p> <ul style="list-style-type: none"> <li>Link or Active <ul style="list-style-type: none"> <li>Steady green—Port link is up</li> <li>Flashing green—Activity on the port link</li> <li>Unlit—Port link is down</li> </ul> </li> <li>Speed <ul style="list-style-type: none"> <li>Unlit—Port is set to 10 Mbps</li> <li>Steady green—Port is set to 100 Mbps</li> <li>Steady amber—Port is set to 1000 Mbps</li> </ul> </li> </ul> <p>On a slave Cisco SCE 8000-SMC-E module (in the second slot), this LED is always off.</p>

# Introduction to SIPs and SPAs

SIPs and SPAs are a new Cisco carrier card and port adapter architecture used to increase modularity, flexibility, and density for network connectivity. This section describes the SIPs and SPAs and provides some guidelines for their use.

- [SPA Interface Processors, page 2-5](#)
- [Specifying the SIP Subslot Location for a SPA, page 2-5](#)
- [Shared Port Adapters, page 2-6](#)
- [8-Port Gigabit Ethernet SPA Cables and Connectors, page 2-7](#)

## SPA Interface Processors

The SIP module supported by the Cisco SCE 8000 GBE chassis is the Cisco SCE 8000-SIP.

The following list describes some of the general characteristics of a SIP:

- SIP is a carrier card that inserts into a slot in the chassis like a line card. It provides no network connectivity on its own.
- SIP contains one or more subslots (bays), which are used to house one or more SPAs. The SPA provides interface ports for network connectivity.
- During normal operation the SIP should reside in the Cisco SCE 8000 GBE chassis fully populated either with functional SPAs in all subslots, or with a blank filler plate (SPA-BLANK=) inserted in all empty subslots.

## Specifying the SIP Subslot Location for a SPA

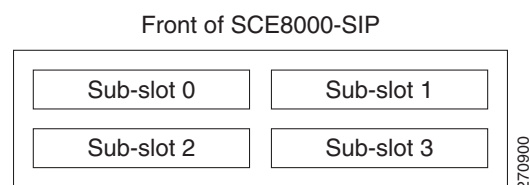
Cisco SCE 8000-SIP subslots begin their numbering with “0” and have a horizontal orientation.

[Figure 2-3](#) shows the subslot numbering for the Cisco SCE 8000-SIP.

The Cisco SCE 8000-SIP supports four subslots for the installation of SPAs, as follows:

- SIP subslot 0—Top-left subslot
- SIP subslot 1—Top-right subslot
- SIP subslot 2—Bottom-left subslot
- SIP subslot 3—Bottom-right subslot

**Figure 2-3** SPA Module Subslot Location



## Shared Port Adapters

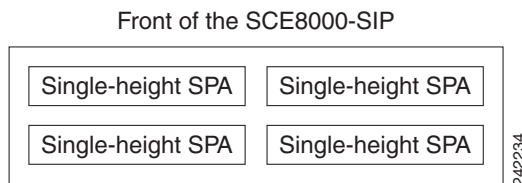
The following SPA modules are supported by the Cisco SCE 8000-SIP:

- For traffic interfaces: 8-port Gigabit Ethernet SPA, SPA-8X1GE-V2
- For cascade interfaces: 1-Port 10-Gigabit Ethernet SPA, SPA-1X10GE-L-V2 (for cascaded systems only)

The following list describes some of the general characteristics of a SPA:

- SPA is a modular type of port adapter that inserts into a subslot of a compatible SIP carrier card to provide network connectivity and increased interface port density. The Cisco SCE 8000-SIP can hold up to four SPAs.
- Supported SPA is a single-height SPAs, which inserts into one SIP subslot. (See [Figure 2-4](#).)

**Figure 2-4**      **Single-Height SPA Size**



- Each 8-port Gigabit Ethernet SPA provides eight GBE ports, which interface with either subscriber or network traffic. These interfaces can be individually configured using the Cisco command-line interface (CLI).

8-port Gigabit Ethernet SPAs can be installed in subslots 0 and 1 only.

- Each 1-Port 10-Gigabit Ethernet SPA provides a one 10GBE port to connect to the corresponding cascade interface on the peer Cisco SCE 8000 GBE platform in a cascaded pair. These interfaces are not explicitly configured.

1-Port 10-Gigabit Ethernet SPAs can be installed in subslots 2 and 3 only.

- Either a blank filler plate or a functional SPA should reside in every subslot of an SIP during normal operation to maintain cooling integrity. Blank filler plates are available in single-height form only.

# Modular Optics

SPAs implement small form-factor pluggable (SFP) optical transceivers to provide network connectivity. An SFP module is a transceiver device that mounts into the front panel to provide network connectivity.



## Note

It is highly recommended only to use the SFP modules listed as supported in this document. Use of unsupported or unqualified SFP modules may affect reliability of operation.

The interface connectors on the 8-Port Gigabit Ethernet SPA are fiber optic receivers that each support one SFP.

## 8-Port Gigabit Ethernet SPA Cables and Connectors

The interface connectors on the 8-Port Gigabit Ethernet SPA are eight individual fiber-optic receivers that support SFP modules. Each port can send and receive traffic using the optical fiber connections.

## SFP Module Connections

The small form-factor pluggable (SFP) module is an input/output (I/O) device that plugs into the Gigabit Ethernet ports on the 8-Port Gigabit Ethernet SPA, linking the port with a fiber-optic network.



## Note

The 8-Port Gigabit Ethernet SPA accepts only the SFP modules listed as supported in this document. An SFP module check is run every time an SFP module is inserted into the 8-Port Gigabit Ethernet SPA, and only SFP modules that pass this check can be used by the 8-Port Gigabit Ethernet SPA. SFP modules exist for technologies other than Gigabit Ethernet and for products other than the 8-Port Gigabit Ethernet SPA. However, the information in this document pertains only to SFP modules that plug into the 8-Port Gigabit Ethernet SPA ports.

The SFP module has a receiver port (RX) and a transmitter port (TX) that compose one optical interface. [Table 2-4](#) and [Table 2-5](#) provide SFP module information and specifications.

**Table 2-4 SFP Module Options**

SFP Module Product Number	SFP Module	Description
SFP-GE-S	Short wavelength (1000BASE-SX)	Contains a Class 1 laser of 850 nm for 1000BASE-SX (short-wavelength) applications.
SFP-GE-L	Long wavelength/long haul (1000BASE-LX/LH)	Contains a Class 1 laser of 1310 nm for 1000BASE-LX/LH (long-wavelength) applications.
SFP-GE-Z	Extended wavelength (1000BASE-ZX)	Contains a Class 1 laser of 1550 nm for 1000BASE-ZX (extended-wavelength) applications.

**Table 2-5 SFP Module Specifications**

Specification	SFP-GE-S	SFP-GE-L	SFP-GE-Z
Wavelength	770 to 860 nm	1270 to 1355 nm	1500 to 1580 nm
Cabling distance (maximum)	500 m on 50/125µm MMF; 300 m on 62.5/125µm MMF	6.2 miles (10 km)	49.7 miles (80 km)
Operating case temperature range	23° to 185° F (-5° to 85° C)	23° to 185° F (-5° to 85° C)	23° to 185° F (-5° to 85° C)
Storage temperature range	-40° to 185° F (-40° to 85° C)	-40° to 185° F (-40° to 85° C)	-40° to 185° F (-40° to 85° C)
Supply voltage range	3.1 to 3.5 V	3.1 to 3.5 V	3.1 to 3.5 V

### SFP-GE-S Modules

The 1000BASE-SX (short-wavelength) module operates on standard multimode fiber-optic link spans of up to 500 m on 50/125µm multimode fiber (MMF) and 300 m on 62.5/125µm MMF.

### SFP-GE-L Modules

The 1000BASE-LX/LH (long-wavelength/long-haul) module interfaces fully comply with the IEEE 802.3z 1000BASE-LX standard. However, their higher optical quality allows them to reach 6.2 miles (10 km) over single-mode fiber (SMF) versus the 3.1 miles (5 km) specified in the standard.

### SFP-GE-Z Modules

The 1000BASE-ZX (extended-wavelength) module operates on ordinary single-mode fiber-optic link spans of up to 49.7 miles (80 km). Link spans of up to 62.1 miles (100 km) are possible using premium single-mode fiber or dispersion-shifted single-mode fiber. (Premium single-mode fiber has a lower attenuation per unit length than ordinary single-mode fiber; dispersion-shifted single-mode fiber has both lower attenuation and less dispersion.)

The 1000BASE-ZX module must be coupled to single-mode fiber-optic cable, which is the type of cable typically used in long-haul telecommunications applications. The 1000BASE-ZX module does not operate correctly when coupled to multimode fiber, and it is not intended to be used in environments in which multimode fiber is frequently used (for example, building backbones or horizontal cabling).

The 1000BASE-ZX module is intended to be used as a Physical Medium Dependent (PMD) component for Gigabit Ethernet interfaces. It operates at a signaling rate of 1250 Mbaud, transmitting and receiving 8B/10B encoded data.

When shorter lengths of single-mode fiber are used, it may be necessary to insert an inline optical attenuator in the link to avoid overloading the receiver. Use the following guidelines:

- Insert a 10-dB inline optical attenuator between the fiber-optic cable plant and the receiving port on the 1000BASE-ZX module at each end of the link whenever the fiber-optic cable span is less than 15.5 miles (25 km).
- Insert a 5-dB inline optical attenuator between the fiber-optic cable plant and the receiving port on the 1000BASE-ZX module at each end of the link whenever the fiber-optic cable span is equal to or greater than 15.5 miles (25 km) but less than 31 miles (50 km).



## The Cisco SCE 8000-SIP

The Cisco SCE 8000-SIP is installed in slot 3 of the Cisco SCE 8000 GBE chassis. It hosts up to four single-width, single-height SPA modules. [Table 2-6](#) lists the Cisco SCE 8000-SIP LED and its status descriptions.

**Table 2-6** Cisco SCE 8000-SIP LED

LEDs	Description
Status	<ul style="list-style-type: none"> <li>Green—Operational</li> <li>Flashing Amber - Electrical bypass in operation</li> <li>Red - Not initialized or failed</li> <li>Unlit—No power</li> </ul>

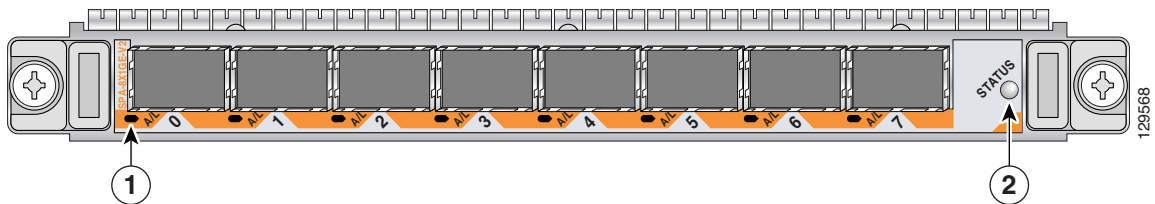
## The 8-Port GBE SPA Interface Module

Either one or two 8-port GBE SPAs may be installed. Possible configurations are as follows:

- One 8-port GBE SPA in sub-slots 0 (four traffic links)
- Two 8-port GBE SPAs in sub-slots 0 and 1 (eight traffic links)
- Cascade: 8-port GBE SPAs in sub-slots 0 and 1, cascade SPAs (1-port 10GBE) in slots 2 and 3

For an illustration of the 8-Port GBE SPA Interface Module see [Figure 2-5](#).

**Figure 2-5** 8-Port GBE SPA Interface Module



<b>1</b>	A/L (Active/Link) LED	<b>2</b>	Status LED
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Table 2-7 lists the SPA port information and Table 2-8 lists SPA LEDs and describes their indications.

**Table 2-7 SPA Ports**

Port	Quantity	Description	Connect This Port To...
GBE Line port	eight on each SPA	Any one of the following: <ul style="list-style-type: none"> <li>SFP-GE-S (1000BASE-SX SFP (DOM))</li> <li>SFP-GE-L (1000BASE-LX/LH SFP (DOM))</li> <li>SFP-GE-Z (1000BASE-ZX Gigabit Ethernet SFP (DOM))</li> </ul> CLI designation: interface TenGigabitEthernet 3/0/0-7, 3/1/0-7, 3/2/0-7, 3/3/0-7.	Any one of the following: <ul style="list-style-type: none"> <li>Subscriber side network component</li> <li>Network side network component</li> <li>Optical bypass GBE line port</li> <li>10GBE line port of a cascaded Cisco SCE 8000 GBE platform</li> </ul> See <a href="#">“Connecting the GBE Line Ports to the Network”</a> section on page 6-2 for further information.

**Table 2-8 SPA LEDs**

LEDs	Description
Active/Link (1)	<ul style="list-style-type: none"> <li>Green—Port is enabled by software and the link is up.</li> <li>Amber—Port is enabled by software and the link is down.</li> <li>Unlit—Port is not enabled by software.</li> </ul>
Status (2)	The Status LED indicates the operational status of the SPA module, as follows: <ul style="list-style-type: none"> <li>Green—SPA is ready and operational.</li> <li>Amber—SPA power is on and good, and SPA is being configured.</li> <li>Off—SPA power is off.</li> </ul>

# Cisco SCE 8000 GBE Optical Bypass

The Cisco SCE 8000 GBE platform optical bypass module preserves the service provider traffic links under all circumstances. At power failure the bypass is automatically activated. It can also be activated by the Cisco SCE 8000 GBE software or hardware.

- [Optical Bypass Functionality, page 2-11](#)
- [Optical Bypass Module \(OPB-SCE8K-2L\), page 2-12](#)

The Cisco SCE 8000-SIP module already includes an internal electrical bypass, but it is strongly recommended that you use the optical bypass module for addressing the following scenarios:

- During platform reboot (software reload)—If the external bypass module is not used, there is a 11-second period during which the link is forced down (cutoff functionality). If any routing or spanning-tree protocols are used in the network, this delay may be extended.
- During a power failure—The Cisco SCE 8000 GBE has two power supplies. A power failure occurs only when both of them fail.

In a case where the Cisco SCE 8000 GBE platform must be replaced, it is possible to remove the bypass modules from the Cisco SCE 8000 GBE chassis without disconnecting them from the network and then reinstall them in the new Cisco SCE platform, so that traffic links are preserved even in a case of complete failure and replacement of the Cisco SCE 8000 GBE platform. (See the [“Replacing the Optical Bypass Module without Disrupting Traffic on the Link”](#) section on page 9-33.)

## Optical Bypass Functionality

The optical bypass module is connected bump-in-the-wire in the traffic link. It is then connected to the Cisco SCE 8000 GBE platform with two types of connections:

- GBE optical connections for data link traffic—Connections from the optical bypass module to one pair of the SPA ports.
- Control connection—Connection to the RJ-11 External Bypass connector on the Cisco SCE 8000-SCM, so the optical bypass is activated if the Cisco SCE 8000 GBE platform fails.  
“Y” RJ-11 control cables that control two optical bypass modules are provided with the Cisco SCE 8000 GBE platform.

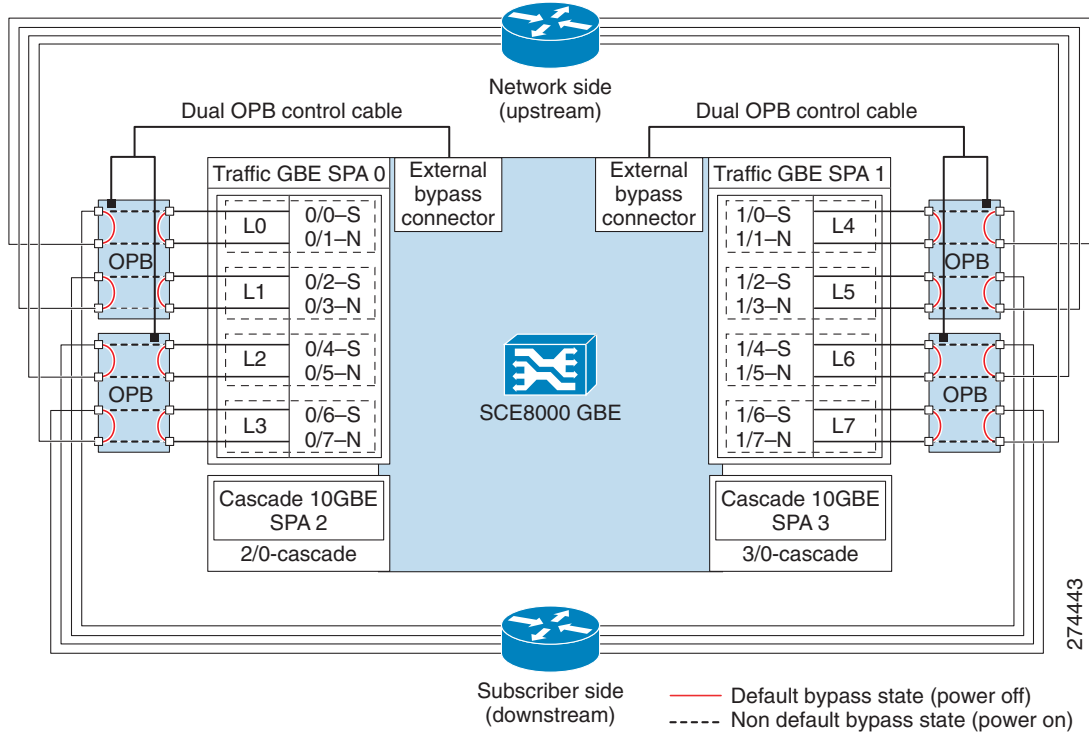
## Optical Bypass Module Connectivity

The optical bypass module functions as follows:

- Under normal conditions, the bypass module directs traffic to flow via the Cisco SCE 8000 GBE GBE.
- Under failure conditions, the optical bypass shortcuts the interfaces that are connected to the traffic link, and all traffic flows through the optical bypass module, bypassing the Cisco SCE platform.

Figure 2-6 displays the Cisco SCE 8000 GBE optical bypass module connectivity.

Figure 2-6 Optical Bypass Module Connectivity: Cisco SCE 8000 GBE



## Optical Bypass Module (OPB-SCE8K-2L)

There are two types of optical bypass modules to support different optic types:

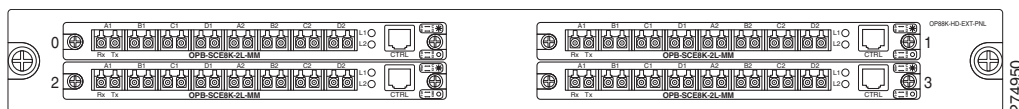
- OPB-SCE8K-2L-SM supports Single-Mode optics and should be used with Cisco SCE 8000 GBE equipped with Single-Mode optics.
- OPB-SCE8K-2L-MM supports Multi-Mode optics and should be used with Cisco SCE 8000 GBE equipped with Multi-Mode optics.

The optical bypass module is installed either internally, in slot 4 of the Cisco SCE 8000 GBE chassis or in an external mounting panel in the rack.

Up to four optical bypass modules can be mounted internally, supporting inline insertion into all eight links.

Figure 2-7 displays the Optical Bypass Module. Table 2-9 lists the Optical Bypass Module ports and Table 2-10 describes the Optical Bypass Module LEDs.

Figure 2-7 Optical Bypass Module



**Table 2-9** *Optical Bypass Module Ports*

Port	Quantity	Description	Connect This Port To
GBE Line port	8	GBE ports A1 through D1 and A2 through D2  Duplex LC, panel mount adaptor for LC/UPC connectors	SPA interfaces on the Cisco SCE 8000 GBE.  See the <a href="#">“Cabling the Line Interface Ports: Using the External Optical Bypass Module”</a> section on page 6-11 for further information.
CTRL	1	RJ-11 port	RJ-11 Optical Bypass port on the Cisco SCE 8000-SCM-E

**Table 2-10** *Optical Bypass Module LEDs*

LEDs	Description
L1/L2	The L1 and L2 LEDs indicate the operational status of the optical bypass for the relevant traffic link as follows: <ul style="list-style-type: none"> <li>• Green—Bypass module on the link has been de-activated (traffic flows through the Cisco SCE 8000 GBE platform)</li> <li>• Off—Bypass module on the link is active (traffic does not flow through the Cisco SCE 8000 GBE platform)</li> </ul>

## Optical Bypass Module Specifications

### Fiber Cable Type

The fiber cable type within the Optical Bypass Module area as follows:

- OPB-SCE8K-2L-MM: 50 micron Multi-Mode Fiber (MMF).
- OPB-SCE8K-2L-SM: SMF-28

Maximum optical path (fiber length of two ports) is 600 m.

### Switching Time

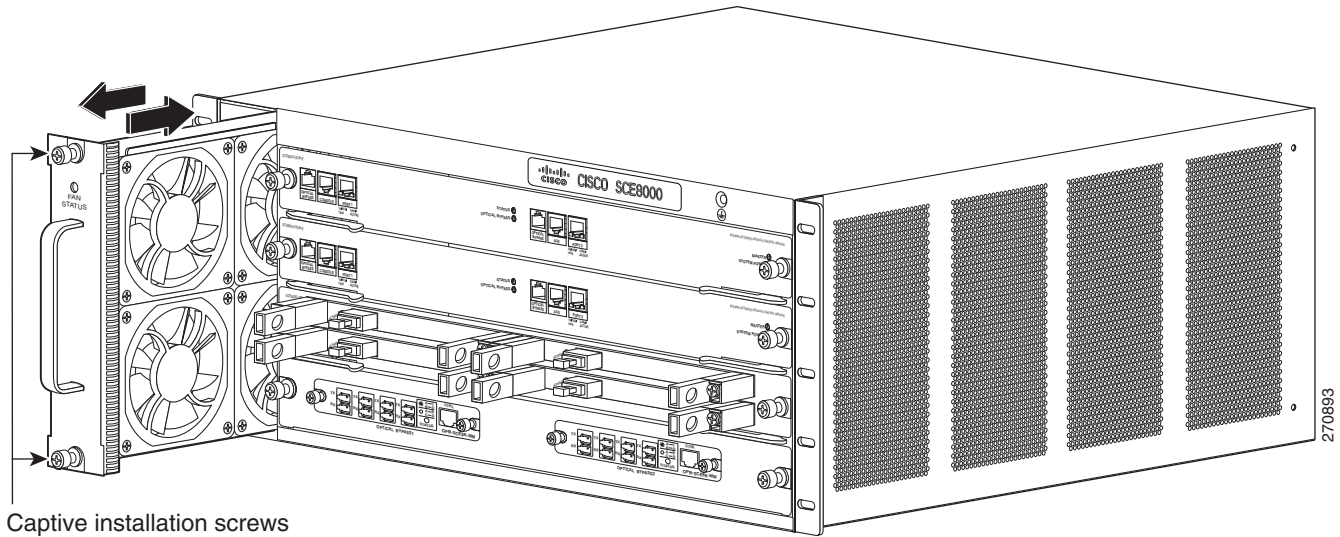
Switching time is measured from trigger to stable 90% optical output.

- Typical switching time: 3 ms
- Maximal switching time: 10 ms

## Fan Assembly

The system fan assembly, located in the chassis, provides cooling air for the installed modules. (See [Figure 2-8](#).) Sensors on the fan assembly and within the system monitor the internal air temperatures. If the air temperature exceeds a preset threshold, the environmental monitor displays warning messages.

**Figure 2-8** Fan Assembly



Captive installation screws

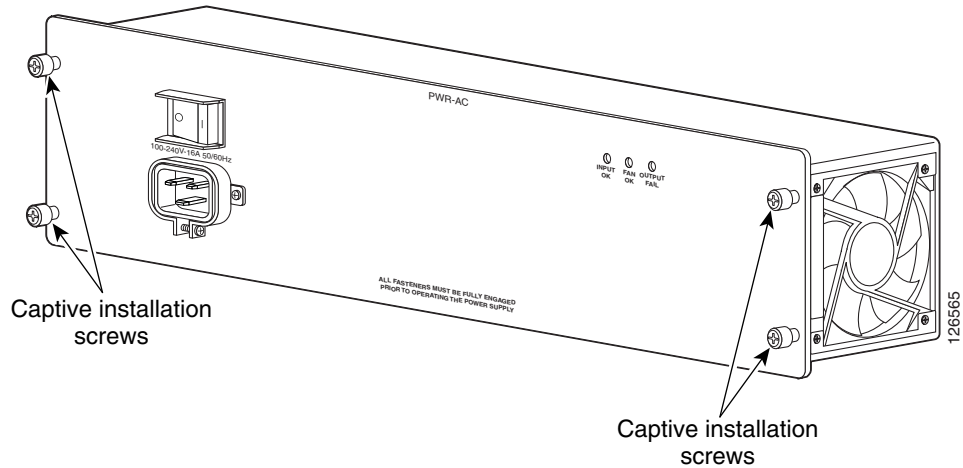
If an individual fan within the assembly fails, the FAN STATUS LED turns red. To replace a fan assembly, see [“Removing and Replacing the Fan Assembly”](#) section on page 9-13.

## Power Supplies

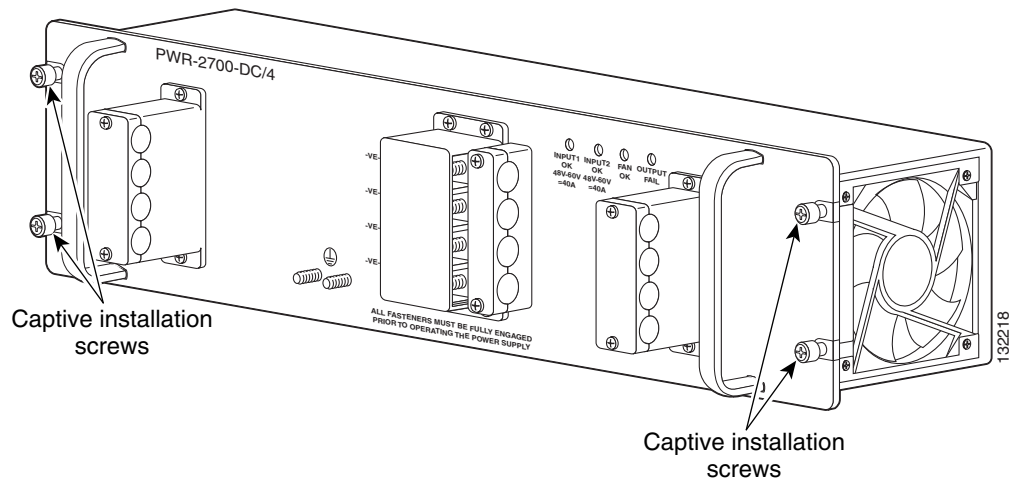
The Cisco SCE 8000 GBE platform supports redundant AC- or DC-input power supplies. The following power supplies are available for the Cisco SCE 8000 GBE platform:

- 2700 W DC input (PWR-2700-DC/4): uses an external terminal block on the back side of the chassis for input power connection (See [Figure 2-10](#)).
- 2700 W AC input (PWR-2700-AC/4): uses an external power cord directly connected to the AC power supply (See [Figure 2-9](#)).

**Figure 2-9 PWR-2700-AC/4**



**Figure 2-10 PWR-2700-DC/4**



The AC-input and DC-input power supplies support redundancy. When power is removed from one supply, the redundant power feature causes the second supply to produce full power.

## Power Supply Cooling

Power supplies have built-in fans and are completely self-cooling. Air enters from the right of the fan and exits through the left.

## Load Sharing

With two power supplies, each power supply concurrently provides approximately half of the required power to the system. If one power supply fails, the second power supply immediately assumes full power to maintain uninterrupted system operation. The second power supply enables load sharing and fault tolerance automatically; no software configuration is required.



# Checking the Shipping Container Contents

Use the Cisco SCE 8000 GBE Component List to check the contents of the Cisco SCE 8000 GBE platform shipping container.



Tip

Do not discard the shipping container when you unpack the Cisco SCE 8000 GBE. Flatten the shipping cartons and store them with the pallet. You will need these containers if you need to move or ship the Cisco SCE 8000 GBE in the future.

## Cisco SCE 8000 GBE Component and Accessory List

Table 2-12 lists the Cisco SCE 8000 GBE components.

**Table 2-11** Cisco SCE 8000 GBE Component List

Component	Description
Cisco SCE 8000-SCM-E	Cisco SCE 8000 GBE Service Control Module
Cisco SCE 8000-SIP	Cisco SCE 8000 GBE SPA Interface Processor
1 or 2 8-port GBE SPA modules with optionally 1 or 2 1-port 10GBE SPA modules for cascade	SPA modules.
2 to 16 Optics SFP optic modules	See the following lists of supported SFP models: <ul style="list-style-type: none"> <li>“SFP Module Connections” section on page 2-7.</li> </ul>
2 Cisco PWR-2700-AC/4 or 2 Cisco PWR-2700-DC/4	Cisco power supply units, AC or DC. Hot swappable, redundant power supply.
Cisco SCE 8000 GBE -FAN	Redundant fans unit.

Table 2-12 lists the Cisco SCE 8000 GBE accessories.

**Table 2-12** Cisco SCE 8000 GBE Accessory List

Accessory	Description
Management cables	<ul style="list-style-type: none"> <li>Gigabit Ethernet cable for connecting to the Management ports</li> <li>RS-232 serial cables (DB-9 to RJ-45 and DB-25 to RJ-45) for connecting to a local terminal</li> </ul>
Power cables	Two AC power supply cords, if ordered with AC-input power supply units
Grounding kit 69-0815-01	<ul style="list-style-type: none"> <li>Grounding lug</li> <li>Two M4 hex-head screws with locking washers</li> </ul>
Optical Bypass module kit	<ul style="list-style-type: none"> <li>Optical Bypass Module</li> <li>Control Cable (2 m)</li> <li>Control Cable (40 cm)</li> </ul>

**Note**

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Cisco does not ship the entire Cisco SCE 8000 GBE documentation set automatically with each system. You must specifically order the documentation as part of the sales order. If you ordered documentation and did not receive it, Cisco will ship the documents to you within 24 hours. To order documents, contact a customer service representative.

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# Cisco SCE 8000 GBE Installation Checklist

To assist you with your installation and to provide a historical record of what was done by whom, photocopy the following Cisco SCE 8000 GBE Installation Checklist (see [Table 2-13](#)). Indicate when each procedure or verification is completed. When the checklist is completed, place it in your site log along with the other records for your new Cisco SCE 8000 GBE platform.

**Table 2-13** Cisco SCE 8000 GBE Installation Checklist

Task	Verified By	Date
Date Cisco SCE 8000 GBE received		
Cisco SCE 8000 GBE and all accessories unpacked		
Safety recommendations and guidelines reviewed		
Topology verified: number of Cisco SCE 8000 GBE platforms, number of links, and whether inline or receive-only		
Installation Checklist copied		
Site log established and background information entered		
Site power voltages verified		
Site environmental specifications verified		
Required passwords, IP addresses, device names, and so on, needed for initial configuration available (see the <a href="#">“Initial Setup Parameters”</a> section on page 5-3.)		
Required tools available		
Network connection equipment available		
Cisco SCE 8000 GBE mounted in rack		
System grounding established, if required		
AC/DC power cables connected to AC/DC sources and Cisco SCE 8000 GBE chassis		
Optical bypass modules installed (optional)		
Console port set for 9600 baud, 8 data bits, no parity, and 1 stop bit (9600 8N1)		
ASCII terminal attached to console port		
Management port is operational		
Network interface cables and devices connected		
System power turned on		
System boot complete (Status LED is on)		
Line ports operational		
Correct hardware configuration displayed after system banner appears		

