



Switch Fabric Module (SFM) and SFM2 Reference

Product Number: CSS8-SFM1
CSS8-SFM2

The Switch Fabric Module (SFM) and SFM2 sets up and tears down flow connections, monitors switch operation, and performs switch functions. Throughout this document, SFM and SFM2 are referred as SFM, unless otherwise noted. The I/O modules use the SFM processors to perform routing functions, including resolution of unknown addresses, route determinations, protocol processing, and other exception events.

Each SFM provides 10-Gbps switch control element for switching functionality and flow processing for four I/O modules. You can install a second active SFM to service four additional I/O modules. Both active SFMs run simultaneously in the CSS 11800. The CSS 11800 chassis enables you to configure two additional SFM modules for SFM redundancy. Therefore, you can configure a total of four SFMs in a CSS 11800 chassis, of which only two would be active at any time.

Note: When you have two redundant SFMs installed and an active SFM switchover occurs, both passive SFMs switchover to become active SFMs.

If an active SFM fails, the CSS reboots and connections are terminated. The CSS restores all configurations using the startup-config file. Then, the passive SFM becomes active automatically.

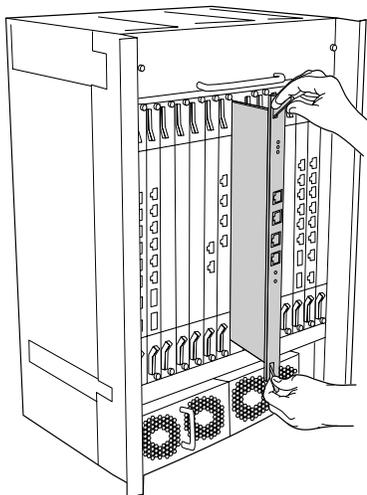
Removing an SFM

You must power down the CSS to remove an SFM.

Note: You can mix SFMs with SFM2s in the same CSS 11800 chassis. However, you must use the same type module as the active SFM and as the passive SFM.

Installing an SFM

You must power down the CSS to install an active SFM or a passive SFM.

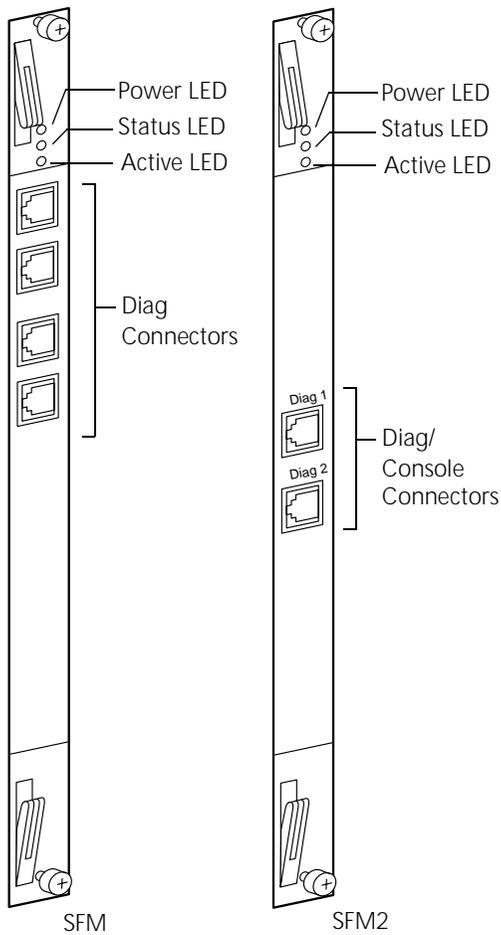


To install an SFM:

1. Properly ground yourself prior to handling the module. For example, wear an anti-static wrist strap (included in the Accessory kit) and stick the copper-tape end of the strap to an unpainted metal surface on the chassis. Make sure that the wrist strap makes good contact with your skin
2. If necessary, power down the CSS.
3. Locate an open slot in the chassis. Active SFMs are restricted to slots 6 or 9, and their passive SFMs are restricted to slots 5 or 10, respectively (the SFM slots are color-coded purple).
4. Insert the module into the board guides at the top and bottom of the slot and slide it into the chassis by pressing firmly at the top and bottom of the faceplate.
5. Close both ejectors simultaneously to seat the module connector into the backplane.
6. Using a Phillips screwdriver, tighten the spring-loaded screws on the front of the module faceplate.

7. Reboot the CSS. Use the **(config-boot) reboot** command. To reboot the CSS and run diagnostics, use the **(config-boot) reboot diags** command.

Using the Switch Fabric Module LEDs



The SFM and SFM2 contain Power, Status, and Active LEDs. Table 1 describes the LEDs and their indications.

Table 1. Switch Fabric Module LED Descriptions

LED Name	Color	LED Status	Indicates
Power	Green	Off	Module does not have power
		On	Module has power
Status	Yellow	Off	Module is operational
		On	Module is experiencing an error (only when the SCM is active; the LED is normally yellow when the SCM is passive)
Active	Green	Off	SFM is redundant
		On	SFM is primary

Related CLI Commands

To view the current state of the SFM and verify it is online, use the **show chassis slot_number** command.

For More Information

For information about the connector pinouts for the SFM and SFM2 connectors, refer to the *Content Services Switch Getting Started* (previously described in the *Installation and Operation Guide*).