Security Module/Engine Management

- About FXOS Security Modules/Security Engine, on page 1
- Decommissioning/Recommissioning a Security Module, on page 3
- Acknowledging a Security Module/Engine, on page 3
- Resetting a Security Module/Engine, on page 4
- Reinitializing a Security Module/Engine, on page 4
- Taking a Network Module Offline or Online, on page 5
- Power Off/On an Installed Module/Engine, on page 6

About FXOS Security Modules/Security Engine

From the Security Modules/Security Engine page of the Firepower Chassis Manager, you can view the status of a security module/engine and can perform various functions on the security module/engine:

The Security Modules/Security Engine page provides the following information:

- Hardware State—Shows the state of the security module/engine hardware:
  - Up—The security module/engine has powered up successfully and is not showing any hardware faults.
  - Booting Up—The security module/engine is in the process of powering up.
  - Restart—The security module/engine is in the process of being restarted.
  - Down—The security module/engine is not powered on or a hardware fault is preventing the security module/engine from starting successfully.
  - Unassociated—The security module/engine does not have a logical device associated with it.
  - Mismatch—The security module has been decommissioned or a new security module was installed into the slot. Use the Recommission or Acknowledge function to return the security module to a functioning state.
  - Empty—A security module is not installed in that slot.

- Service State—Shows the state of the software on the security module/engine:
  - Not-available—The security module has been removed from the chassis slot. Reinstall the security module to return it to its normal operational state.
• Offline—The security module/engine is installed but has been decommissioned, has been powered off, or is still in the process of powering up.

• Online—The security module/engine is installed and is in normal operation mode.

• Not Responding—The security module/engine is unresponsive.

• Token Mismatch—Indicates that a security module other than the one previously configured has been installed into the chassis slot. This could also be caused by a software installation error. Use the Reinitialize function to return the security module to a functioning state.

• Fault—The security module/engine is in a fault state. Review the system fault listing for more information about what might be causing the fault state. You can also hover over the information icon for a fault to see additional information.

Security Module Faults

• Failsafe Mode—the security module is in failsafe mode. Applications are blocked from starting in this mode. Connect to the security module for troubleshooting or to disable failsafe mode. The app-instance can also be deleted.

• HDD Error—the security module disk drive has errors. Please verify that the disk drive is present and replace the faulty disk drive if the fault does not clear.

• Filesystem Error—disk partitions on the security module are not compatible. Reboot the security module for possible recovery. If the fault persists, please reinitialize the slot after backing up your data on an external device.

• Format Failure—automatic format failed on the security module disk drive. Reinitialize the security module to reformat.

• Power—Shows the power status of the security module/engine:
  • On—Use the Power off/on function to toggle the power status for the security module/engine.
  • Off—Use the Power off/on function to toggle the power status for the security module/engine.

• Application—Shows the logical device type that is installed on the security module/engine.

From the Security Modules/Security Engine page of the Firepower Chassis Manager, you can perform the following functions on a security module/engine:

• Decommission (security modules only)—Decommissioning a security module places the security module into maintenance mode. You can also decommission and then acknowledge a security module in order to correct certain fault states. See Decommissioning/Recommissioning a Security Module, on page 3.

• Acknowledge—Brings newly installed security modules online. See Acknowledging a Security Module/Engine, on page 3.

• Power Cycle—Restarts the security module/engine. See Resetting a Security Module/Engine, on page 4.

• Reinitialize—Reformats the security module/engine hard disk, removing all deployed applications and configurations from the security module/engine, and then restarts the system. After reinitialization is complete, if a logical device is configured for the security module/engine, the Firepower eXtensible Operating System will reinstall the application software, redeploy the logical device, and auto start the application. See Reinitializing a Security Module/Engine, on page 4.
Decommissioning/Recommissioning a Security Module

When you decommission a security module, the security module object is deleted from the configuration and the security module becomes unmanaged. Any logical devices or software running on the security module will become inactive.

You can decommission a security module if you want to temporarily discontinue use of the security module. Also, if restarting a security module cannot correct an error condition, you can try decommissioning and then recommissioning the security module to see if you can correct the error condition without having to reinitialize the security module.

Procedure

2. To decommission a security module, click Decommission for that security module.
   To recommission a security module, click Acknowledge for that security module.
3. Click Yes to verify that you want to decommission or recommission the specified security module.

Acknowledging a Security Module/Engine

When a new security module is installed into the chassis, or when an existing module is replaced with one with a different product ID (PID), you must acknowledge the security module before you can begin using it.

If the security module is showing a status of “mismatch” or “token mismatch,” this is an indication that the security module installed in the slot has data on it that does not match what was previously installed in the slot. If the security module has existing data on it and you are sure you want to use it in the new slot (in other words, the security module wasn't inadvertently installed into the wrong slot), you must reinitialize the security module before you can deploy a logical device to it.

Procedure

2. Click Acknowledge for the security module/engine that you want to acknowledge.
Resetting a Security Module/Engine

Follow these steps to power-cycle a security module/engine.

**Procedure**

**Step 1** Choose **Security Modules/Security Engine** to open the Security Modules/Security Engine page.

**Step 2** Click **Power Cycle** for the security module/engine that you want to reset.

**Step 3** Do one of the following:

- Click **Safe Power Cycle** to have the system wait for up to five minutes for the application running on the security module/engine to shut down before the system resets the specified security module/engine.

- Click **Power Cycle Immediately** to have the system reset the specified security module/engine immediately.

Reinitializing a Security Module/Engine

When a security module/engine is reinitialized, the security module/engine hard disk is formatted and all installed application instances, configurations, and data are removed. After reinitialization has completed, if a logical device is configured for the security module/engine, FXOS will reinstall the application software, redeploy the logical device, and auto start the application.

**Caution**

All application data on the security module/engine is deleted during reinitialization. Back up all application data before reinitializing a security module/engine.

**Procedure**

**Step 1** Choose **Security Modules/Security Engine** to open the Security Modules/Security Engine page.

**Step 2** Click **Reinitialize** for the security module/engine that you want to reinitialize.

**Step 3** Click **Yes** to verify that you want to reinitialize the specified security module/engine.

The security module/engine is restarted and all data on the security module is deleted. This process can take several minutes.
Taking a Network Module Offline or Online

Follow these steps to use CLI commands to take a network module offline, or to bring it back online; used for example, when performing module online insertion and removal (OIR).

Note


• If performing a network module online insertion and removal (OIR) on a Firepower 8 port 1G Copper FTW Network Module (FPR-NM-8X1G-F FTW), note that the network module LED stays off until you bring the card online using this procedure. The LED first flashes amber, then changes to green once the network module is discovered and the application comes online.

Procedure

Step 1
Use the following commands to enter /fabric-interconnect mode and then enter /card mode for the module to be taken offline:

```bash
scope fabric-interconnect a
scope card ID
```

Step 2
You can use the `show detail` command to view information about this card, including its current status.

Step 3
To take the module offline, enter:

```bash
set adminstate offline
```

Step 4
Enter the `commit-buffer` command to save the configuration change.

You can use the `show detail` command again to confirm that the module is offline.

Step 5
To bring the network module back online, enter:

```bash
set adminstate online
commit-buffer
```

Example

```bash
FP9300-A# scope fabric-interconnect a
FP9300-A /fabric-interconnect # scope card 2
FP9300-A /fabric-interconnect/card # show detail
```

Fabric Card:

- Id: 2
- Description: Firepower 4x40G QSFP NM
- Number of Ports: 16
- State: Online
- Vendor: Cisco Systems, Inc.
- Model: FPR-NM-4X40G
Power Off/On an Installed Module/Engine

Follow these steps to power off or power on a security or network module.

Procedure

**Step 1**

**Step 2**
To power off a security module/engine:

a) Click **Power off** for that security module/engine.

b) Do one of the following:

   - Click **Safe Power Off** to have the system wait for up to five minutes for the application running on the security module/engine to shut down before the system powers down the specified security module/engine.

   - Click **Power Off Immediately** to have the system power down the specified security module/engine immediately.

**Step 3**
To power on a security module/engine:

a) Click **Power on** for that security module/engine.

b) Click **Yes** to verify that you want to power on the specified security module/engine.