



Security Module/Engine Management

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About FXOS Security Modules/Security Engine

You can use the FXOS CLI to 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 a Security Module, on page 2](#).
- **Acknowledge**—Brings newly installed security modules online. See [Acknowledge a Security Module/Engine, on page 2](#).
- **Power Cycle**—Restarts the security module/engine. See [Power-Cycling a Security Module/Engine, on page 3](#).
- **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 FXOS will reinstall the application software, redeploy the logical device, and auto start the application. See [Reinitializing a Security Module/Engine, on page 4](#).



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

- **Power off/on**—Toggles the power state for the security module/engine. See [Power-Cycling a Security Module/Engine, on page 3](#).

Decommissioning 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.



Note A module must be decommissioned before it can be deleted using the `delete decommissioned` command.

Procedure

Step 1 To decommission a module, enter the `decommission server` command:

```
decommission server {ID | chassis-id/blade-id}
```

Depending on the type of device hosting the module to be decommissioned, identify it using its module ID (4100 series), or the chassis number and the module number (9300 devices).

Example:

```
FP9300-A# decommission server 1/2
FP9300-A* #
```

Step 2 Enter the `commit-buffer` command to commit the change.

You can use the `show server decommissioned` command to view a list of decommissioned modules.

Acknowledge 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

Step 1 Enter `chassis` mode:

```
scope chassis
```

Step 2 Enter the `acknowledge slot` command after decommissioning and physically removing a module that will not be replaced, or after replacing a module with another that is not the same type (that is, with a different PID):

```
acknowledge slot
```

Example:

```
FP9300-A# scope chassis
FP9300-A /chassis # acknowledge slot 2
FP9300-A /chassis* #
```

Step 3 Commit the configuration:

```
commit-buffer
```

Power-Cycling a Security Module/Engine

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

Procedure

Step 1 Enter `/service-profile` mode:

```
scope service-profile server {chassis_id>/blade_id}
```

Example:

```
FP9300-A # scope service-profile server 1/1
FP9300-A /org/service-profile #
```

Step 2 Enter one of the `cycle` commands:

- `cycle cycle-immediate`—power-cycles the module immediately.
- `cycle cycle-wait`—the system waits for up to five minutes for the application running on the module to shut down before power-cycling the module.

Example:

```
FP9300-A /org/service-profile # cycle cycle-wait
FP9300-A /org/service-profile* #
```

Step 3 Commit the buffer to power-cycle the module:

```
commit-buffer
```

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 Enter security services mode:

```
scope ssa
```

Step 2 Enter slot mode for the desired module:

```
scope slot {slot_id}
```

Example:

```
FP9300-A # scope ssa
FP9300-A /ssa # scope slot 2
FP9300-A /ssa/slot #
```

Step 3 Enter the `reinitialize` command:

Example:

```
FP9300-A # scope ssa
FP9300-A /ssa # scope slot 2
FP9300-A /ssa/slot # reinitialize
Warning: Reinitializing blade takes a few minutes. All the application data on blade will
get lost. Please backup application running config files before commit-buffer.
FP9300-A /ssa/slot* #
```

Step 4 Back up application configuration files as necessary.

Step 5 Commit the buffer to reinitialize the module:

```
commit-buffer
```

The module is restarted and all data on the module is deleted. This process can take several minutes.

Step 6 You can use the `show detail` command to check the progress of the reformatting operation, the result of the reformatting (success or failure), and an error code if the operation fails.

Acknowledge a Network Module

When a new network 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 network module before you can begin using it.

Procedure

Step 1 Enter `scope fabric-interconnect` mode:

```
scope fabric-interconnect
```

Step 2 Enter the `acknowledge` command after installing a new module or replacing a network module with another that is not the same type (that is, with a different PID):

```
acknowledge
```

Example:

```
FPR1 /fabric-interconnect # acknowledge
  fault  Fault
  slot   Card Config Slot Id <=====
```

Step 3 Enter the `acknowledge slot` to acknowledge the inserted slot.

```
acknowledge slot
```

Example:

```
FPR1 /fabric-interconnect # acknowledg slot 2
  0-4294967295 Slot Id
```

Step 4 Commit the configuration:

```
commit-buffer
```

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 removing and replacing a network module, follow the instructions in the “Maintenance and Upgrades” chapter of the appropriate Install Guide for your device. See <https://www.cisco.com/c/en/us/support/security/firepower-ngfw/products-installation-guides-list.html>.
- If performing a network module online insertion and removal (OIR) on a 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.

**Note**

If you remove a FTW network module and acknowledge the slot, the network module ports are deleted from the FTD logical device. In this case, you must delete the hardware bypass inline set configurations using FMC before reinserting the network module. After reinserting the network module, you must:

- Configure the network module ports as administrative online state using Firepower Chassis Manager or FXOS Command Line Interface (CLI).
- Add the network module ports to the FTD logical device and reconfigure the ports using FMC.

If you remove the network module without acknowledging the slot, the inline set configuration is retained and ports display as down in FMC. Once you reinsert the network module, the previous configuration is restored.

For more information about hardware bypass for inline sets, see [Hardware Bypass Pairs](#).

Procedure

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

```
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:

```
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:

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

Example

```
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
HW Revision: 0
Serial (SN): JAD191601DE
Perf: N/A
Admin State: Online
Power State: Online
Presence: Equipped
Thermal Status: N/A
Voltage Status: N/A
```

```
FP9300-A /fabric-interconnect/card # set adminstate offline
FP9300-A /fabric-interconnect/card* # commit-buffer
FP9300-A /fabric-interconnect/card # show detail
```

Fabric Card:

```
Id: 2
Description: Firepower 4x40G QSFP NM
Number of Ports: 16
State: Offline
Vendor: Cisco Systems, Inc.
Model: FPR-NM-4X40G
HW Revision: 0
Serial (SN): JAD191601DE
Perf: N/A
Admin State: Offline
Power State: Off
Presence: Equipped
Thermal Status: N/A
Voltage Status: N/A
```

```
FP9300-A /fabric-interconnect/card #
```

