



Installation, Maintenance, and Upgrade

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Install, Remove, and Replace the Network Module

You can remove and replace the network modules (NM-2 and NM-3) in the Secure Firewall 4200. Although the hardware supports removing and replacing the network module while the system is running, the software does not currently support hot swapping. You must power down the chassis or disable the network slot to remove and replace network modules.

See the configuration guide for your operating system for the procedure for managing network modules.

This procedure describes how to install a network module into an empty slot that has never contained a network module, and how to remove an installed network module and replace it with another network module.

Safety Warnings

Take note of the following warning:



Warning **Statement 1073**—No User-Serviceable Parts

There are no serviceable parts inside. To avoid risk of electric shock, do not open.

Step 1 To install a network module for the first time into an empty slot, do the following:

- a) Power down the chassis by moving the power switch to the OFF position.
See [Rear Panel](#) for more information about the power switch. See the configuration guide for your operating system for the procedure for installing a network module for the first time into an empty slot.
- b) Follow Steps 4 through 7 to install the new network module.
- c) Power on the chassis by moving the power switch to the ON position.

Step 2 To remove and replace an existing network module, do the following:

- a) Save your configuration.

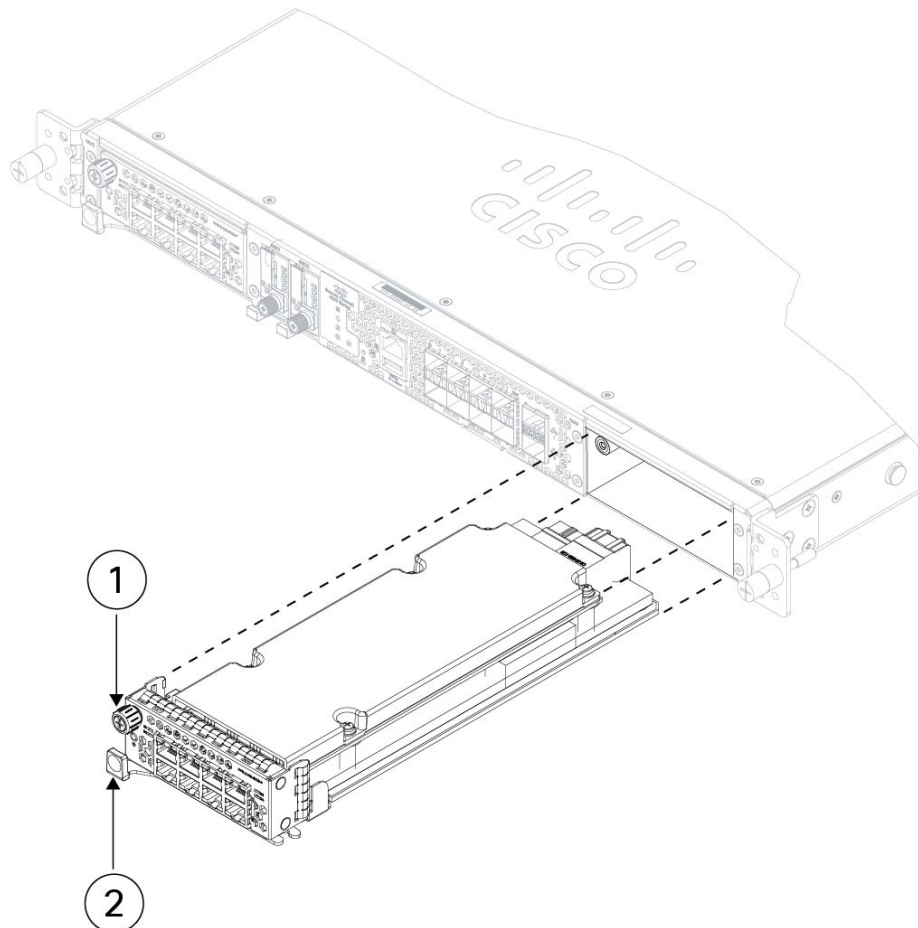
- b) To replace an existing network module with the same model network module, disable the network slot. See the configuration guide for your operating system for the procedure to replace an existing network module with the same model.
- c) To replace an existing network module with a different model network module, power down the chassis by moving the power switch to the OFF position. See the configuration guide for your operating system for the procedure to replace an existing network module with a new model.
See [Rear Panel](#) for more information about the power switch.
- d) Continue with Step 3.

Step 3

To remove a network module, loosen the captive screw on the upper left side of the network module, press the handle ejector, and pull out the handle. This mechanically ejects the network module from the slot.

Caution The captive screw is not attached to the handle. Be sure the captive screw is completely loosened before pulling the ejector handle out. Otherwise you could damage the ejector handle as the captive screw and handle fight each other.

Figure 1: Remove the Network Module



1	Captive screw	2	Ejector handle
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If the slot is to remain empty, install a blank faceplate to ensure proper airflow and to keep dust out of the chassis; otherwise, install another network module.

- Step 4** To replace a network module, hold the network module in front of the network module slot on the right of the chassis, press the ejector handle, and pull out the handle.
 - Step 5** Slide the network module into the slot, push it firmly into place, and close the handle on the front of the network module.
 - Step 6** Tighten the captive screw on the upper left side of the network module.
 - Step 7** Power on the chassis so that the new network module is recognized.
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Remove and Replace the SSD

The chassis supports two NVMe SSDs. The SSDs are configured for SW RAID1 support. See [SSDs](#) for more information.



Caution Hot swapping for the RAID configuration is not supported. To remove an SSD, you must remove it from the RAID configuration using the **raid remove-secure local-disk 1|2** command. See [Hot Swap an SSD on the Secure Firewall 3100/4200](#) for the procedures for safely removing an SSD.

Safety Warnings

Take note of the following warning:

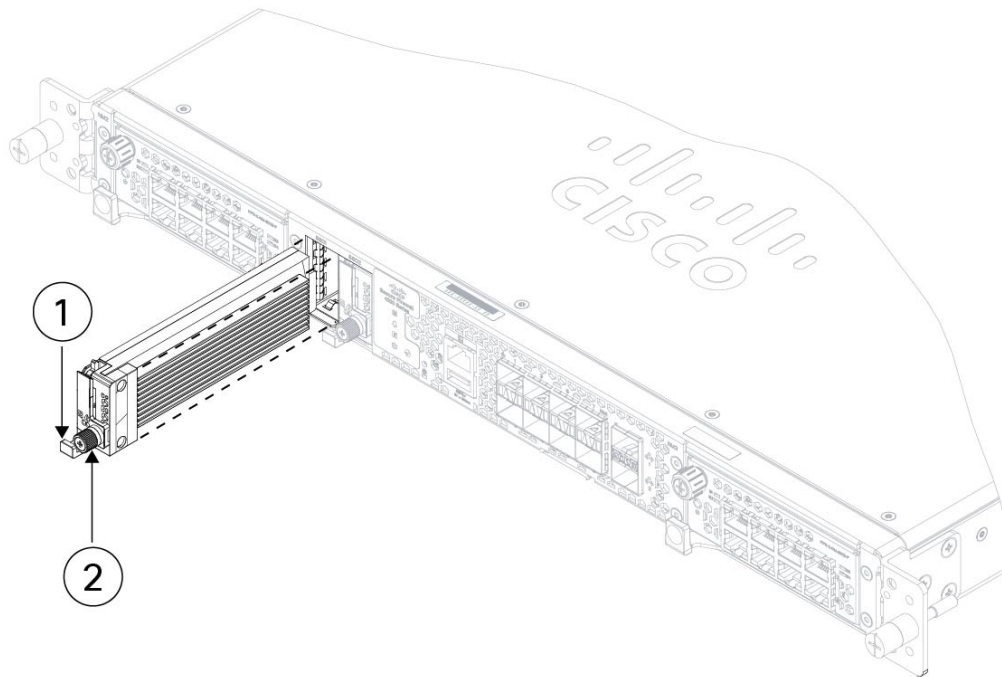


Warning **Statement 1073**—No User-Serviceable Parts

There are no serviceable parts inside. To avoid risk of electric shock, do not open.

- Step 1** Save your configuration.
- Step 2** Remove SSD-1 or SSD-2 from the RAID1 configuration by using the **raid remove-secure local-disk 1|2** command.
- Step 3** To remove the SSD from the slot, face the front of the chassis, and pinch the release tab on the front of the SSD. This causes the ejector handle to spring open.
- Step 4** Grasp the ejector handle to gently pull the SSD out of the chassis.

Figure 2: Remove the SSD



1	Handle	Captive screw
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- Step 5** To replace SSD-1 or SSD-2, hold the SSD with the ejector handle extended in front of the slot, push it in gently until it is seated, and then close the ejector handle.
- Step 6** Check the SSD LED to make sure the SSD is operative. See [Front Panel LEDs](#) for a description of the SSD LEDs.
- Step 7** Add the new SSD to the RAID configuration using the `raid add local-disk 1|2` command.

Remove and Replace the Dual Fan Module

You can remove and replace the dual fan modules while the chassis is running. There are three dual fan modules in the rear of the chassis. The air flow moves from front to back (I/O side to non-I/O side).



Caution Removing all of the dual fan modules exposes the chassis to no airflow. Replace the dual fan modules within 30 seconds after removal to avoid overheating the chassis. If you wait longer than 30 seconds, the chassis may power off automatically to prevent damage to components. The chassis does not power up and boot properly if the dual fan modules are missing.

Safety Warnings

Take note of the following warnings:



Warning Statement 1073—No User-Serviceable Parts

There are no serviceable parts inside. To avoid risk of electric shock, do not open.



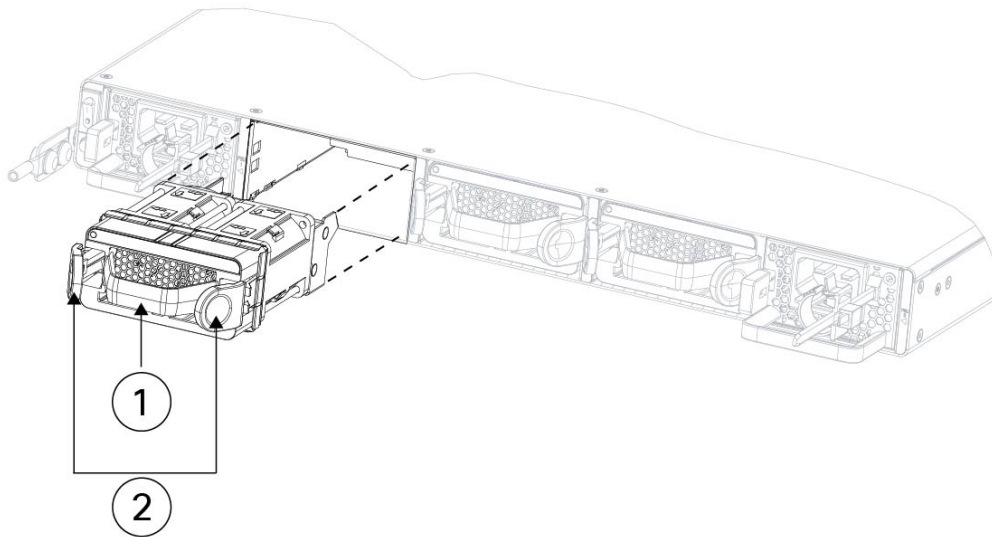
Warning Statement 1093—Avoid Sharp Edges

Risk of personal injury. Avoid sharp edges when installing or removing replaceable units.



- Step 1** Have the dual fan module ready for immediate insertion and near the chassis so that you can reinstall it within 30 seconds.
- Step 2** To remove a fan module, face the rear of the chassis, and press the squeeze tabs on the sides of the fan module to loosen it from the chassis.
- Step 3** Grasp the handle and pull the fan module out of the chassis.

Figure 3: Remove the Dual Fan Module



1	Handle	2	Squeeze tabs
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- Step 4** To replace a fan module, hold the fan module in front of the fan slot.
- Step 5** Press the squeeze tabs on the sides of the fan module and push the it into the chassis.
- Step 6** Grasp the handle and push until the fan module is properly seated.
If the system is powered on, listen for the fans. You should immediately hear the fans operating. If you do not hear the fans, make sure the fan module is inserted completely into the chassis and the faceplate is flush with the outside surface of the chassis.

- Step 7** Verify that the fan is operational by checking the fan module LED. See [Front Panel LEDs](#) for a description of the fan LEDs.
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Remove and Replace the Power Supply Module

Power supply modules are hot-swappable. You can remove and replace power supply modules while the system is running.

Safety Warnings

Take note of the following warnings:



Warning **Statement 1015**—Battery Handling

To reduce risk of fire, explosion or leakage of flammable liquid or gas:

- Replace the battery only with the same or equivalent type recommended by the manufacturer.
 - Do not dismantle, crush, puncture, use sharp tool to remove, short external contacts, or dispose of in fire.
 - Do not use if battery is warped or swollen.
 - Do not store or use battery in a temperature > 60° C.
 - Do not store or use battery in low air pressure environment < 69.7 kPa.
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Warning **Statement 1022**—Disconnect Device

To reduce the risk of electric shock and fire, a readily accessible disconnect device must be incorporated in the fixed wiring.



Warning **Statement 1046**—Installing or Replacing the Unit

To reduce risk of electric shock, when installing or replacing the unit, the ground connection must always be made first and disconnected last.

If your unit has modules, secure them with the provided screws.

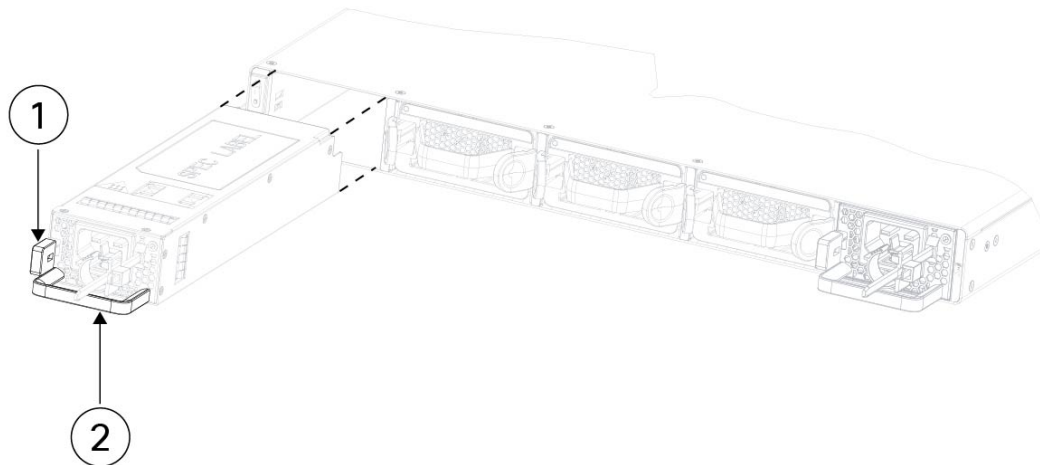


Warning **Statement 1073**—No User-Serviceable Parts

There are no serviceable parts inside. To avoid risk of electric shock, do not open.

- Step 1** Unplug the power supply cable before removing the power supply module. You cannot disengage the power supply module release tab without first removing the cable.
- Step 2** To remove a power supply module, face the back of the chassis and grasp the handle.
- Step 3** Press the release tab toward the left to disengage the power supply. The release tab is found on the right side of the power supply.
- Step 4** Place your other hand under the power supply module to support it while you slide it out of the chassis.

Figure 4: Remove the Power Supply Module



1	Release tab	2	Handle
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If the slot is to remain empty, install a blank faceplate to ensure proper airflow; otherwise, install another power supply module.

- Step 5** To replace a power supply module, hold the power supply module with both hands and slide it into the power supply module bay.
- Step 6** Push in the power supply module gently until you hear the release tab engage and the power supply is seated.
- Step 7** Plug in the power supply cable.
- Step 8** Check the LED on the power supply to make sure the power supply is operative.

Remove and Replace the Power Supply Module