FORCEPOINT

Next Generation Firewall

Hardware Guide

Model 6205 Revision D

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Introduction

Thank you for choosing a Forcepoint Next Generation Firewall (Forcepoint NGFW) appliance. Familiarize yourself with the appliance ports and indicators and learn how to install the appliance safely.

Find product documentation

On the Forcepoint support website, you can find information about a released product, including product documentation, technical articles, and more.

You can get additional information and support for your product on the Forcepoint support website at https://support.forcepoint.com. There, you can access product documentation, Knowledge Base articles, downloads, cases, and contact information.

Model 6205 features

The figures and tables show the appliance components.

6205 front panel



6205 back panel



Ethernet port names

Ethernet port names are based on the slot and port numbers.

The first number in the name represents the slot on the appliance. The second number represents the port on the slot. For example, eth2_0 is located on port 0 of slot 2.

Component	Slot number	Port numbers
Fixed Ethernet ports	0	eth0_0, eth0_1, and eth0_2.

Component	Slot number	Port numbers
Interface module ports	1–8. Slots 1–4 are on the upper row, and slots 5–8 are on the lower row.	The port numbers start from 0 and increase from left to right. For example, the port farthest to the left in slot 1 is eth1_0.

Fixed port indicators

Fixed port indicators show the status and speed of the network ports.

Ethernet port indicators

Ethernet port indicators show the status and speed of the network ports.



Number	Indicator	Status	Description
1	Activity/link indicator	Yellow	Link OK. Flashes on activity.
2	Link speed indicator	Unlit	10 Mbps link.
		Amber	100 Mbps link.
		Green	1 Gbps link.

QSFP+ port indicators

QSFP+ port indicators show the status and speed of the network ports.



Number	Indicator	Status Description	
1	Activity/link indicator	Amber	Link OK, flashes on activity.
2	Link speed indicator	Unlit	No link
Green		Green	40 Gbps link

Front panel indicator lights

Indicator lights show the status of the appliance.

lcon	Indicator	Status	Description		
,	Power	Green	The appliance is in running state.		
		Red	The appliance is in standby state.		
	Warning	Red	Steady — Overheating		
			Flashing — Fan failure or general system failure		
\bigcirc	Disk Activity	Amber	Indicates SSD activity.		
	UID	Blue	The unit identification (UID) indicator has been switched on. Used to locate the appliance in a rack. When you press the UID button, the UID indicator on the front and back panel turns on until you press the button again.		

SSD indicators

SSD indicators show the status of the SSDs.



Supported interface modules

Forcepoint NGFW appliances support copper, fiber, and small form-factor pluggable (SFP) modules.



Note: Do not remove any stickers from modules — they contain important information.

For a list of all available interface modules and compatibility information, see Knowledge Base article 10245.

Table 1: Copper modules

Module	Identifier
2 port 10 gigabit Ethernet RJ45 module	MO102
4 port gigabit Ethernet bypass RJ45 module	MOG4B
8 port gigabit Ethernet RJ45 module	MOG8

Table 2: Fiber modules

Module	Identifier
2 port 10 gigabit Ethernet short reach bypass module	MO10S2B
2 port 10 gigabit Ethernet long reach bypass module	MO10L2B

Table 3: SFP modules

Module	Identifier
2 port 10 gigabit Ethernet SFP+ module	MO10F2
2 port 40 gigabit Ethernet QSFP module	MO40F2
4 port gigabit Ethernet SFP module	MOGF4
4 port 10 gigabit Ethernet SFP+ module revision 2	MOE10F4

Copper interface modules

Forcepoint NGFW appliances support these copper interface modules.

MO102 module

The MO102 module is a two-port 10 gigabit copper interface module.



Number	Component	Color	Description
1	Release lever	N/A	N/A
2	Activity/link indicator	Green	Link OK, flashes on activity.

Number	Component	Color	Description
3	Link speed indicator		1 Gbps link.
		Green	10 Gbps link.

MOG4B module

The MOG4B module is a quad-port gigabit bypass copper module.



Number	Component	Color	Description
1	Release lever	N/A	N/A
2	Activity/link indicator	Green	Link OK.
3	3 Link speed/bypass/disconnect indicator		1 Gbps link, flashes in disconnect mode.
		Green	100 Mbps link, flashes in bypass mode.
		Unlit	10 Mbps link.

MOG8 module

The MOG8 module is an eight-port gigabit copper interface module.



Number	Component	Color	Description
1	Port numbers 0–7	N/A	N/A

Number	Component	Color	Description
2, 5	Activity/link indicator	Green	Link OK, flashes on activity.
3, 6	Link speed indicator	Yellow	1 Gbps link.
		Green	100 Mbps link.
		Unlit	10 Mbps link.
4	Release lever	N/A	N/A

Fiber interface modules

Forcepoint NGFW appliances support these fiber interface modules.

MO10S2B module

The MO10S2B module is a two-port 10 gigabit bypass fiber module.



Number	Component	Color	Description
1	Release lever	N/A	N/A
2	Activity/link indicator	Green	Link OK.
3	Link speed/bypass/disconnect indicator	Blue	10 Gbps link.
		Green	Flashes in bypass mode.

MO10L2B module

The MO10L2B module is a two-port 10 gigabit bypass fiber module.



Number	Component	Color	Description
1	Release lever	N/A	N/A
2	Activity/link indicator	Green	Link OK.
3	Link speed/bypass/disconnect indicator	Blue	10 Gbps link.
		Green	Flashes in bypass mode.

SFP interface modules

Forcepoint NGFW appliances support these SFP interface modules.

MO10F2 module

The MO10F2 module is a two-port 10 gigabit SFP+ interface module.



Number	Component	Color	Description
1	Release lever	N/A	N/A
2	Activity/link indicator	Green	Link OK.
3	Link speed indicator	Blue	10 Gbps link.

MO40F2 module

The MO40F2 module is a two-port 40 gigabit QSFP+ interface module.



Number	Component	Color	Description
1	Release lever	N/A	N/A
2	Activity/link/link speed indicator	Green	40 Gbps link (other speeds not supported), flashes on activity.

MOGF4 module

The MOGF4 module is a quad-port gigabit SFP interface module.



Number	Component	Color	Description
1	Release lever	N/A	N/A
2	Activity/link indicator	Green	Link OK.
3	Link speed indicator	Yellow	1 Gbps link.

MOE10F4 module

The MOE10F4 module is a quad-port 10 gigabit SFP+ interface module.



Number	Component	Color	Description
1	Release lever	N/A	N/A
2	Activity/link indicator	Green	Link OK.
3	Link speed indicator	Blue	10 Gbps link.

Precautions

The precautions provide safety guidance when working with Forcepoint appliances and electrical equipment.

Safety precautions

Read the safety information and follow the procedures whenever you are working with electronic equipment.

General safety

Follow these rules to ensure general safety.

- · Keep the area around the appliance clean and free of clutter.
- When lifting the appliance, two people at each end should lift slowly with their feet spread out to distribute the weight. Always keep your back straight and lift with your legs.
- Use a regulating uninterruptible power supply (UPS) to keep your system operating if there is a power failure and to protect the appliance from power surges and voltage spikes.
- If you need to switch off or unplug the appliance, always wait at least five seconds before turning on or plugging in the appliance again.

Operating precautions

 Do not open the power supply casing. Only the manufacturer's qualified technician can access and service power supplies. • Keep the cover in place when the appliance is on to ensure proper cooling. Failure to adhere to this guidance could void your warranty.

For additional safety information, see the Forcepoint Product Safety and Regulatory Compliance Guide.

Electrical safety precautions

Follow basic electrical safety precautions to protect yourself from harm and the appliance from damage.

- Know the locations of the power on/off button and the emergency turn-off switch, disconnection switch, or electrical outlet for the room. If an electrical accident occurs, you can quickly turn off power to the system.
- When working with high-voltage components, do not work alone.
- Turn off the system and disconnect the power before removing or installing system components.
- When working with electrical equipment that is turned on, use only one hand. This is to avoid making a
 complete circuit, which causes an electric shock. Use extreme caution when using metal tools, which can
 easily damage any electrical components or circuit boards the tools come into contact with.
- Do not use mats designed to decrease electrostatic discharge as protection from electric shock. Instead, use rubber mats that have been designed as electrical insulators.
- The power supply cable must include a grounding plug and must be plugged into a grounded electrical outlet.

Power supply safety precautions

Depending on the type of power supply that your Forcepoint NGFW appliance uses, different safety precautions and installation guidelines apply.



Note: If the appliance has two power supplies, we recommend that you use both power supplies for redundancy.

AC power supplies

The appliance power inlet is the disconnect device on the appliance.

DC power supplies

- The appliance must be used in a restricted access location and users must be well trained to operate it.
- The outlet for the appliance must be installed near the appliance and be easily accessible.
- We recommend using a 30A fuse (slow) and a power switch between the appliance and the main power source.
- The appliance must be protected against electric shock and must have, at minimum, a 12 AWG wire provided for the DC power supply.
- The case of the appliance must be grounded using the power connector pin or the grounding nut. We recommend using both grounding methods.
- The mains supply plug on the power supply cable is the disconnect device on the appliance. To disconnect the appliance, you must first disconnect the mains, then disconnect the ground.

Install the appliance

Prepare and install the appliance in your network.

Before you begin

- Install a Security Management Center (SMC) on a separate server.
- Configure the NGFW Engine element (Firewall, IPS, or Layer 2 Firewall) in the Management Client, and save the initial configuration.



Note: For additional information on SMC installation and initial configuration, see the *Forcepoint Next Generation Firewall Installation Guide*.

Inspect the appliance, the delivery box, and all components included in the shipment.



Note: Do not use damaged appliances or components.

Rack-mount the appliance

The rack-mounting procedure varies depending on the type of rack unit. If needed, see the documentation for your rack unit.



Important: Read the safety precautions before you rack-mount the appliance. Do not install the appliance upside down.

Preparing for rack-mounting

The rack-mounting kit includes the mounting screws and the rail assemblies or rack-mounting brackets to install the system into the rack.

Determine the placement of each component in the rack.

- Install the heaviest components on the bottom of the rack first. Install components from the bottom to the top.
- The appliance must be connected to a grounded power outlet.
- Use a UPS to protect the appliance from power surges and voltage spikes, and to keep your system operating
 if there is a power failure.
- To maintain proper cooling, always keep the front door of the rack and all panels and components on the appliances closed when not servicing.

Install a 6205 appliance in a two-post rack

Use the short rack-mounting brackets to secure the appliance in the rack.

Steps

1) Attach a short bracket to each side of the appliance with one screw through each of the two grooves.



2) Attach the brackets to the rack with four screws through the holes in the front of the brackets.



CAUTION: Use all four screws to attach each rack-mounting bracket to the rack. Using fewer screws might not provide sufficient support and can damage the appliance.

Install a 6205 appliance in a four-post rack

Attach the appliance to the front posts of the rack, and optionally use the long rack-mounting brackets to attach the appliance to the back posts of the rack.

Steps

- 1) (Optional) Attach a long bracket to the back posts of the rack, then attach the appliance to the bracket.
 - a) Attach a long bracket to each of the back posts of the rack.
 - b) Attach four screws to each side of the appliance.
 - c) Lift the appliance into the rack, and guide the screws in the side of the appliance into the two grooves of the bracket.

The bracket is used to support the appliance when setting the depth of the appliance in the rack.



2) Attach the front panel to the front posts of the rack with two screws in each post.



Result



Figure 2: If attached to front posts of the rack only

Install the SSD

Install the SSD if it is not already installed.

There are two SSD slots on the back panel of the appliances. Use only one SSD.



Note: We recommend fastening a grounding strap to your wrist so that it contacts your bare skin and attaching the other end of the strap to the appliance.

CAUTION: Uninstalled SSDs are sensitive to damage from electrostatic discharge.

Steps

- 1) Press the release button on the SSD to release the lever.
- 2) Insert the SSD into the bay.
- 3) Push the lever down to lock the SSD into position.

Install an interface module

If needed, install any interface modules.

Before you begin

- Read the safety precautions.
- Make sure any interface modules you install are the correct type for your appliance.

CAUTION: To avoid damaging the modules or the appliance, do not install or remove any interface modules if the appliance is turned on.

You must install an interface module or a placeholder module in each slot before making the appliance operational. If the appliance was delivered with a plate that covered the interface slot, you can cover the interface slot with the plate.



Note: We recommend fastening a grounding strap to your wrist so that it contacts your bare skin and attaching the other end of the strap to the appliance.

Steps

- 1) Locate the slot to install the module in.
- 2) If the interface slot is covered with a plate, unfasten the thumbscrew that attaches the plate to the interface module slot and remove the plate.

Store the plate and the thumbscrew for later use in case you want to use the appliance without an interface module.

3) Push the module into the slot.

The module is seated correctly when the module clicks in place with a click.



Tip: Make sure that the sticker on the module cover faces up.

Important: Do not insert the module in the wrong orientation. Inserting the modules incorrectly might damage the appliance and the modules and voids the warranty.

Connect the cables

Connect the network, management, and power supply cables.



CAUTION: On appliances that have an Intelligent Platform Management Interface (IPMI) port, the IPMI port is disabled by default. We do not recommend that you enable the IPMI port and connect a cable to it. This might help an unauthorized user to find a way to access and manage the appliance remotely and compromise the security of the system.

Copper cable types

Use at least CAT5e-rated cables for gigabit networks.

Always use standard cabling methods. Use crossover cables to connect the appliance to hosts and straight cables to connect the appliance to switches or hubs. For more information, see the *Forcepoint Next Generation Firewall Installation Guide*.

Speed and duplex settings

Network interfaces at both ends of each cable must have identical speed and duplex settings.

These settings include the automatic negotiation setting. If one end of the cable uses autonegotiation, the other end must also use autonegotiation. Gigabit standards require interfaces to use autonegotiation. Fixed settings are not allowed at gigabit speeds.

The settings for inline interfaces must be identical for all four interfaces. The pair on the appliance and the interfaces on the two devices connecting to the appliance must have the same speed and duplex settings configured.

Ethernet port mapping

For appliances that have removable interface modules, Ethernet port names are based on the slot and port numbers.

The first number in the name represents the slot on the appliance, and the second number represents the port on the slot. *Example:* eth2_0 is located on port 0 of slot 2.

- Slot 0 contains the fixed Ethernet ports.
- Slots 1 and higher contain the ports on the interface modules. The port numbers start at 0 and increase from left to right.

During the initial configuration of the appliance, you map the Ethernet ports to the interface IDs that you defined in the Management Client.

The NGFW Initial Configuration Wizard shows the mapping between the interface IDs and port names. In the command line version of the NGFW Initial Configuration Wizard, Interface IDs appear in the Id column and port names appear in the Name column.

This mapping can change if you replace an interface module. If the new module has more Ethernet ports, the interface IDs for the new ports start from the next free interface ID number. *Example:* You have thirteen interfaces numbered 0–12, which includes a four-port module installed in slot 1.

Figure 3:	Original interface ID ma	pping	
[Step 2 of 3: Con		
ID 0 1 2 3 4 5 6 7 8 9 10 11 12	Name Driver modem0 eth0_0 igb eth0_1 igb eth0_2 igb eth0_3 igb eth0_4 ixgbe eth0_5 ixgbe eth0_6 ixgbe eth0_6 ixgbe eth1_0 igb eth1_1 igb eth1_2 igb eth1_3 igb wlan0 ath10k_pci		

If you replace the four-port module installed in slot 1 with a two-port module, eth1_2 with ID 10 and eth1_3 with ID 11 are removed.



Connect network and management cables

Connect the appliance to your networks. The management connection allows you to view the system console.



Note: Ethernet ports are mapped to interface IDs during the initial configuration. The ports and port numbers of the physical appliance must match the interface definitions and interface IDs configured for the engine in the Management Client.

Steps

1) Determine which Ethernet ports to use and connect the ports to your networks.

- 2) Select one of these options for the management connection depending on the appliance model and features:
 - Connect a null-modem cable to the console port of the appliance and to another computer for a terminal connection.
 - · Connect a monitor to the VGA port and a keyboard to a USB port.

Connect network cables to SFP ports

If you installed an SFP interface module on the appliance or the appliance has an integrated SFP port, insert the copper or fiber-optic SFP transceiver into the port, then connect the cables.

Steps

1) Insert the SFP transceiver in the port slot until you feel the connector on the transceiver snap into place.



Note: Make sure that the latch on the SFP transceiver is up when you insert the SFP transceiver in the port slot.

- 2) If the SFP transceiver has a rubber plug, remove the plug.
- 3) Connect the copper or fiber-optic cable to the SFP transceiver.



Note: Each SFP port must match the wavelength specifications at the other end of the cable. The cable must not exceed the stipulated cable length for reliable communications.

Connect the power supplies

Connect cables to the power supplies on the back of the appliance.

Before you begin

See the safety precautions topic for information about power supplies.

We highly recommend these configurations.

- On appliances that have two power supply modules for redundant power sources, connect both power supplies to a power source. This ensures that the appliance can function if one of the power connections fails.
- Use a UPS to ensure continuous operation and minimize the risk of damage to the appliance in case of sudden loss of power. For a truly redundant power supply, connect each power connector on the appliance to a different UPS, so that the failure of one UPS does not cut power to both power supplies.

Steps

- 1) Connect the power cables to the AC or DC power connectors on the back of the appliance.
- Plug the power cord into a grounded, high-quality power strip that offers protection from electrical noise and power surges.

Related concepts

Safety precautions on page 12

Maintenance

Forcepoint NGFW appliances ship with replaceable components.

Turn off the appliance

Turn off the appliance from the engine command line.

Steps

- 1) Connect to the engine command line. Depending on your appliance type, use one of these options.
 - Connect a keyboard to a USB port and a monitor to the VGA port, then press Enter.
 - Connect a computer running a terminal emulator program to the appliance console port, then press **Enter**.
 - Connect using SSH.



Note: SSH access is not enabled by default.

- Enter the logon credentials.
 The user name is root and the password is the one you set for the appliance.
- 3) Enter the command halt.

Replace the power supply

The power supplies are replaceable on most Forcepoint NGFW appliances.

The power supplies are hot-swappable.



CAUTION: Do not open the casing of a power supply module. Power supply modules can only be repaired by a qualified technician from the manufacturer.



Note: We recommend fastening a grounding strap to your wrist so that it contacts your bare skin and attaching the other end of the strap to the appliance.

Steps

1) Disconnect the power cable from the power supply module.

- 2) Locate the release tab for the power supply module.
- 3) Push the release tab to release the power supply module from its locking position.
- 4) Pull out the power supply module using the handle provided.
- 5) Push the replacement power supply module into the power bay until it clicks in place.

Replace the appliance fans

Replace failed fans to ensure proper cooling of the appliance.

The appliance fans are hot-swappable.

We recommend that you replace all appliance fans if one of the fans fails.



CAUTION: Do not remove all fans at the same time if the appliance is running.



Note: We recommend fastening a grounding strap to your wrist so that it contacts your bare skin and attaching the other end of the strap to the appliance.

Steps

- 1) Press the release tabs on the side of the appliance fan to release the fan from its locking position.
- 2) Remove the fan from the appliance and slide the new fan into the fan housing.

Replace the SSD

Replace an SSD with another of the same model.

There are two SSD slots on the back panel of the appliance. Use only one slot.



Note: We recommend fastening a grounding strap to your wrist so that it contacts your bare skin and attaching the other end of the strap to the appliance.



CAUTION: Uninstalled SSDs are sensitive to damage from electrostatic discharge.

Steps

- 1) Turn off the appliance and disconnect any power cables.
- 2) Press the release button to release the lever that locks the SSD into position.
- 3) Pull the lever carefully and remove the SSD from the bay.
- 4) Remove the SSD from the tray, then insert the new SSD into the tray.

- 5) Press the release button on the new SSD to release the lever.
- 6) Insert the SSD into the same bay as the SSD that you removed.
- 7) Push the lever down to lock the SSD into position.

Replace an interface module

Replace an interface module with the same type or a different type of module.

If the appliance was delivered with a plate that covered the interface slot, you can cover the interface slot with the plate.



Note: We recommend fastening a grounding strap to your wrist so that it contacts your bare skin and attaching the other end of the strap to the appliance.

Steps

- 1) Turn off the appliance and disconnect any power cables.
- 2) Release the module from its locking position by pressing and holding the lever right, then pulling the module carefully out of the slot using the handle or the knob on the module's front panel.



Note: If the unlocked module does not move, keep the release lever to the right, press the module gently toward the back of the slot, and pull the module again by the handle or the knob.

- 3) Insert the new module.
- 4) Connect the cables and plug the power cables to the system and to the wall outlets.
- 5) Turn on the appliance.



CAUTION: To ensure proper cooling, do not turn on the appliance if you have not installed an interface module or a placeholder module in each slot. For some appliances, you can install the cover plate over the slot instead.

- 6) Update the interface configuration.
 - a) On the command line of the NGFW Engine, enter the following command to start the NGFW Initial Configuration Wizard:

sg-reconfigure

b) In the network interface configuration options, make sure that the autodetected information is correct and that all interfaces have been detected.

If autodetection fails, add network drivers manually. For detailed instructions, see the *Forcepoint Next Generation Firewall Installation Guide*.

c) If the number of ports in the new module differs from the old module, adjust the mapping of interfaces to interface IDs.

CAUTION: Do not select the **Clear** action when modifying interface IDs in the NGFW Initial Configuration Wizard on the command line. Selecting **Clear** removes all mapping information between interface IDs and Ethernet ports, and restores the default values.

- d) On the Prepare for Management Contact page, highlight Finish, then press Enter.
- e) If the number of ports in the new module differs from the old module, modify the interface definitions in the Management Client, then refresh the policy to transfer the interface changes to the engine.
 Make sure to use the same interface IDs that you mapped to the interfaces in the NGFW Initial Configuration Wizard for the interface definitions in the Management Client.

Reattach the cover plate to the interface module slot

Reattach the module cover plate if there is no module in the slot.



CAUTION: Do not turn on the appliance if a slot is empty or uncovered. Using the appliance without an interface module or the cover plate can damage the appliance and voids the warranty.

Note: We recommend fastening a grounding strap to your wrist so that it contacts your bare skin and attaching the other end of the strap to the appliance.

Steps

- 1) Turn off the appliance.
- 2) Remove the interface module from the interface module slot.
- 3) Locate the tab at the lower left corner of the plate.
- 4) Insert the tab into the hole in the lower left corner of the slot casing.
- 5) Slide the plate inward until it covers the slot.
- 6) Push the lever down to lock the plate into position.

Remove SFP transceivers

Remove or replace an SFP transceiver.



CAUTION: Invisible laser radiation is emitted from the end of a fiber-optic cable and from the fiber port. Do not stare into the beam and avoid direct exposure to the beam.



Note: We recommend fastening a grounding strap to your wrist so that it contacts your bare skin and attaching the other end of the strap to the appliance.

Steps

- 1) Turn off the appliance and disconnect any power cables.
- 2) Unplug all power cables from the system or the wall outlets.
- 3) Disconnect the cable from the SFP transceiver.
- 4) Pull down the latch on the transceiver and carefully pull the SFP transceiver out of the port slot.
- 5) If needed, insert a replacement SFP transceiver in the slot.

Related tasks

Connect network cables to SFP ports on page 22

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