

Rack-Mount the Chassis

- Unpack and inspect the chassis, on page 1
- Rack mount the chassis using brackets, on page 2
- Rack mount the chassis using slide rails, on page 4
- Ground the chassis, on page 11

Unpack and inspect the chassis

Note The chassis is thoroughly inspected before shipment. If any damage occurred during transportation or any items are missing, contact your customer service representative immediately. Keep the shipping container in case you need to send the chassis back due to damage.

Procedure

Step 1 Remove the chassis from its cardboard container and save all packaging material.

Step 2 Compare the shipment to the equipment list provided by your customer service representative. Verify that you have all items.

Step 3 Check for damage and report any discrepancies or damage to your customer service representative. Have the following information ready:

- Invoice number of shipper (see the packing slip)
- Model and serial number of the damaged unit
- Description of damage
- Effect of damage on the installation

Related Topics

Package contents

Rack mount the chassis using brackets

This procedure describes how to install the Secure Firewall 3100 in a rack using the rack-mount brackets. It also describes how to install the optional cable management brackets.

The rack is a standard Electronic Industries Association (EIA) rack. It is a 4-post-EIA-310-D, which is the current revision as specified by EIA. The vertical hole spacing alternates at .50 inches (12.70 mm) to .625 inches (15.90 mm) to .625 inches (15.90 mm) and repeats. The start and stop space is in the middle of the .50-inch holes. The horizontal spacing is 18.312 inches (465.1 mm), and the rack opening is specified as a minimum of 17.75 inches (450 mm).

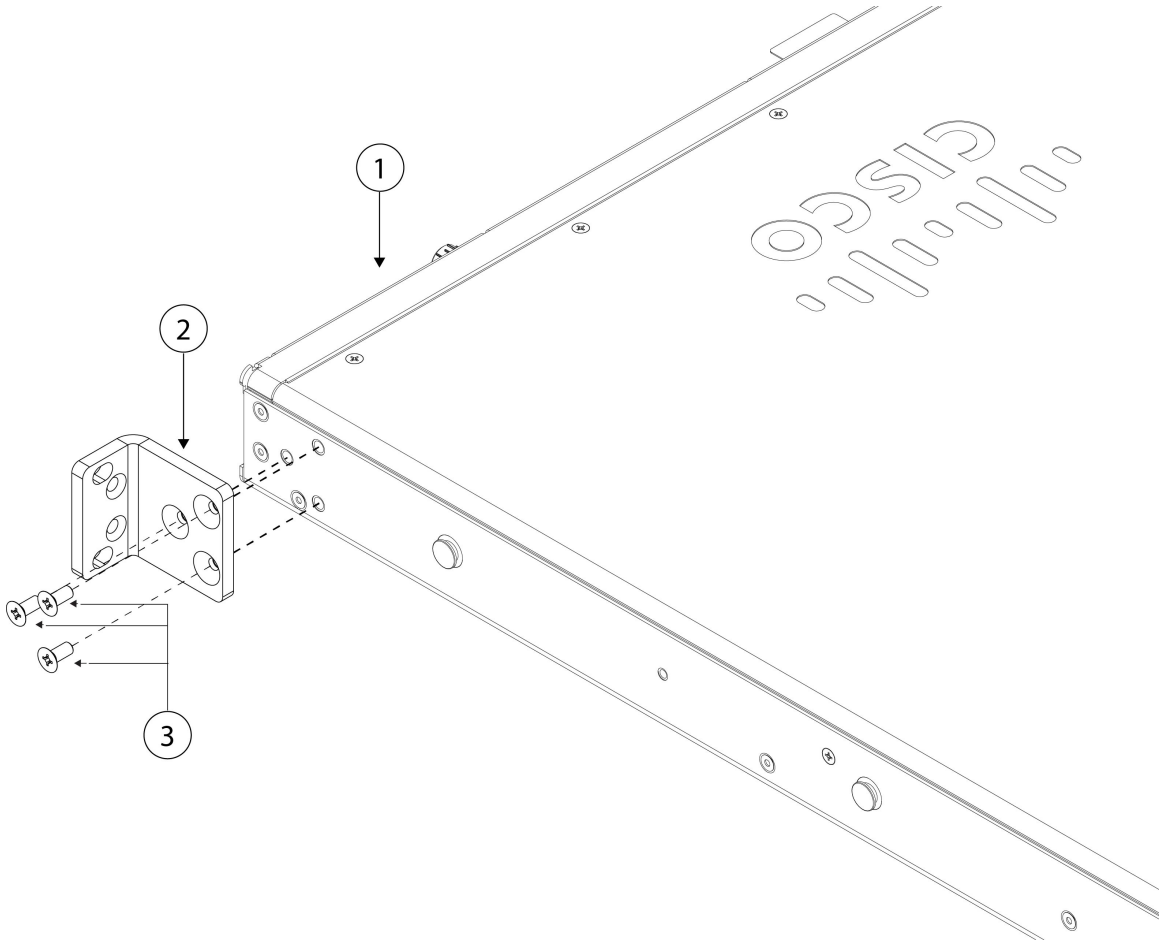
You need the following to install the Secure Firewall 3100 in a rack:

- Phillips screwdriver
- Two rack-mount brackets with six 8-32 x 0.375 inch screws
- Rack-mount screws:
  - Four 12-24 x 0.75 inch Phillips screws for securing the chassis to your rack
  - Four 10-32 x 0.75 inch Phillips screws for securing the chassis to your rack
- (Optional) Cable management bracket kit:
  - Two cable management brackets
  - Four 8-32 x 0.375 inch Phillips screws

Procedure

Step 1 Attach a rack-mount bracket to each side of the chassis using the six 8-32 x 0.375 inch Phillips screws (three per side).

Figure 1: Attach the rack-mount bracket to the side of the chassis

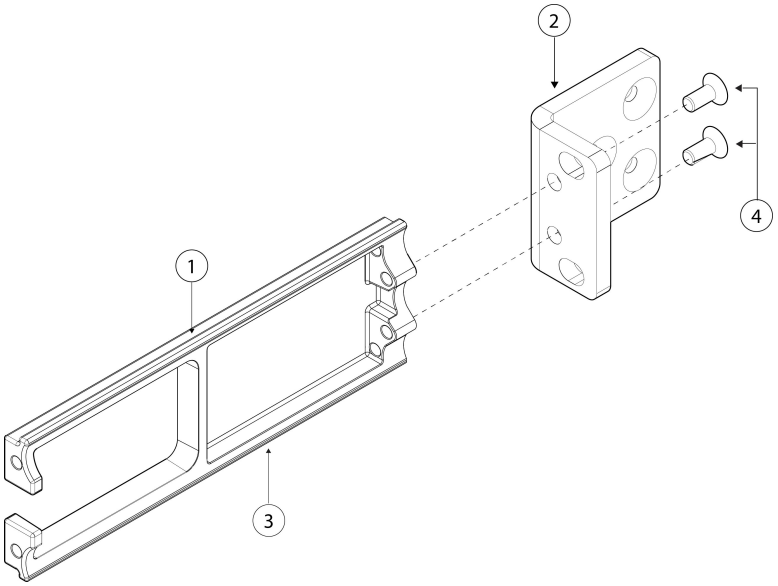


1	Chassis	**2**	Rack-mount bracket
3	8-32 x 0.375-inch Phillips screws (three per side)		—

Step 2 (Optional) Attach the cable management bracket to the rack-mount bracket:

a) Install the cable management screws into the rack-mount bracket.

Figure 2: Install the cable management screws into the rack-mount bracket



1	Step groove on the cable management bracket	**2**	Rack-mount bracket
3	Cable management bracket	**4**	8-32 x 0.375-inch Phillips screws (two per bracket)

b) Install two 8-32 x 0.375-inch screws through the inside of each rack-mount bracket to secure the cable management bracket to the rack-mount bracket.

Step 3 Attach the chassis with the installed rack-mount bracket to the rack using the screws that work for your rack.

What to do next

- Install the cables according to your default software configuration as described in the Cisco Secure Firewall 3100 Getting Started Guide.

Related Topics

Product ID numbers
Ground the chassis, on page 11

Rack mount the chassis using slide rails

This procedure describes how to install the Secure Firewall 3100 in a rack using slide rails. It applies to all models of the 3100 series. You use the pegs on the chassis to secure the slide rail.

You can install the optional cable management bracket on all models of the Secure Firewall 3100. The optional cable management bracket kit comes with two cable management brackets and four 8-32 x 0.375-inch screws.

The rack is a standard Electronic Industries Association (EIA) rack. It is a 4-post-EIA-310-D, which is the current revision as specified by EIA. The vertical hole spacing alternates at .50 inches (12.70 mm) to .625 inches (15.90 mm) to .625 inches (15.90 mm) and repeats. The start and stop space is in the middle of the

.50-inch holes. The horizontal spacing is 18.312 inches (465.1 mm), and the rack opening is specified as a minimum of 17.75 inches (450 mm).

You need the following to install the Secure Firewall 3100 in a rack using slide rails:

- Phillips screwdriver
- Two slide rails
- Two slide rail locking brackets
- Six 8-32 x 0.302-inch Phillips screws
- Two M3 x 0.5 x 6 mm Phillips screws
- (Optional) Two cable management brackets with four 8-32 x 0.375-inch Phillips screws

Slide rail assemblies work with four-post racks and cabinets with square slots, round 7.1mm holes, #10-32 threaded holes, and #12-24 threaded holes on the rack post front. The slide rail works with front to back spacing of rack posts from 24 to 36 inches. The rack-mounting posts need to be 2 to 3.5 mm thick to work with the slide rail rack mounting.

Safety warnings

Take note of the following warnings:



Warning **Statement 1006—**Chassis Warning for Rack-Mounting and Servicing

To prevent bodily injury when mounting or servicing this unit in a rack, you must take special precautions to ensure that the system remains stable. The following guidelines are provided to ensure your safety:

- This unit should be mounted at the bottom of the rack if it is the only unit in the rack.
- When mounting this unit in a partially filled rack, load the rack from the bottom to the top with the heaviest component at the bottom of the rack.
- If the rack is provided with stabilizing devices, install the stabilizers before mounting or servicing the unit in the rack.



Warning **Statement 1024—**Ground Conductor

This equipment must be grounded. To reduce the risk of electric shock, never defeat the ground conductor or operate the equipment in the absence of a suitably installed ground conductor. Contact the appropriate electrical inspection authority or an electrician if you are uncertain that suitable grounding is available.



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

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

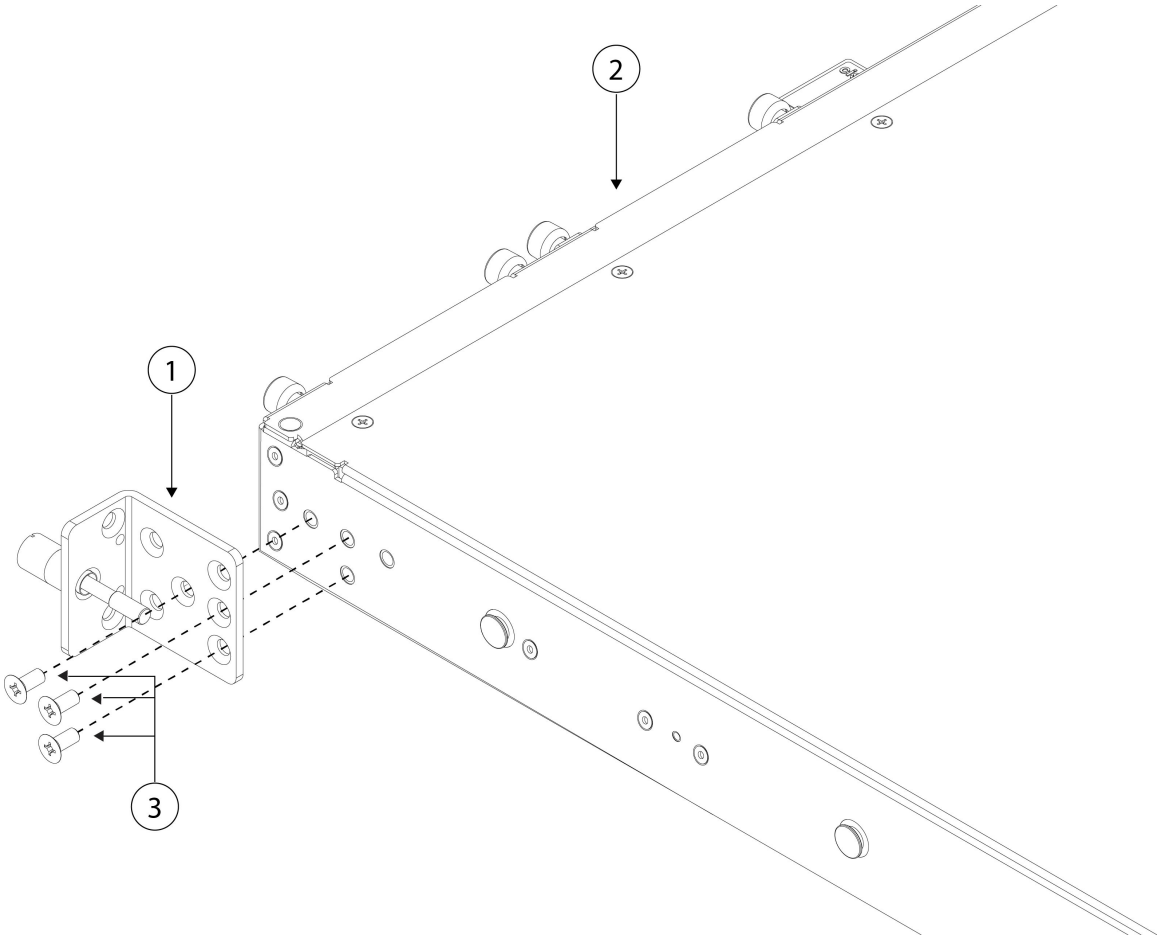
Warning **Statement 1098**—Lifting Requirement

Two people are required to lift the heavy parts of the product. To prevent injury, keep your back straight and lift with your legs, not your back.

Procedure

Step 1 Attach the slide-rail locking brackets to each side of the chassis using the six 8-32 x 0.302-inch Phillips screws (three per side).

Figure 3: Attach the slide-rail locking bracket to the side of the chassis



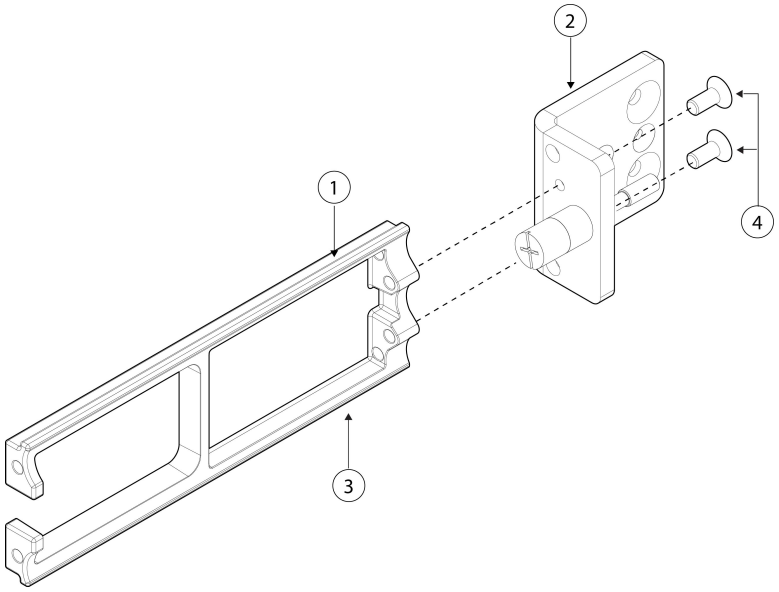
1	Slide-rail locking bracket	**2**	Chassis
3	8-32 x 0.302-inch Phillips screws (three per side)		—

Step 2 (Optional) Attach the cable management bracket to the slide-rail locking bracket:

a) Install the cable management screws into the slide-rail locking bracket.

Caution
If you are going to install the FIPS opacity shield, make sure the lower step of the cable management bracket is on the inside in your installation. This allows you to slide the FIPS cover into place more easily.

Figure 4: Install the cable management screws into the slide-rail Locking bracket



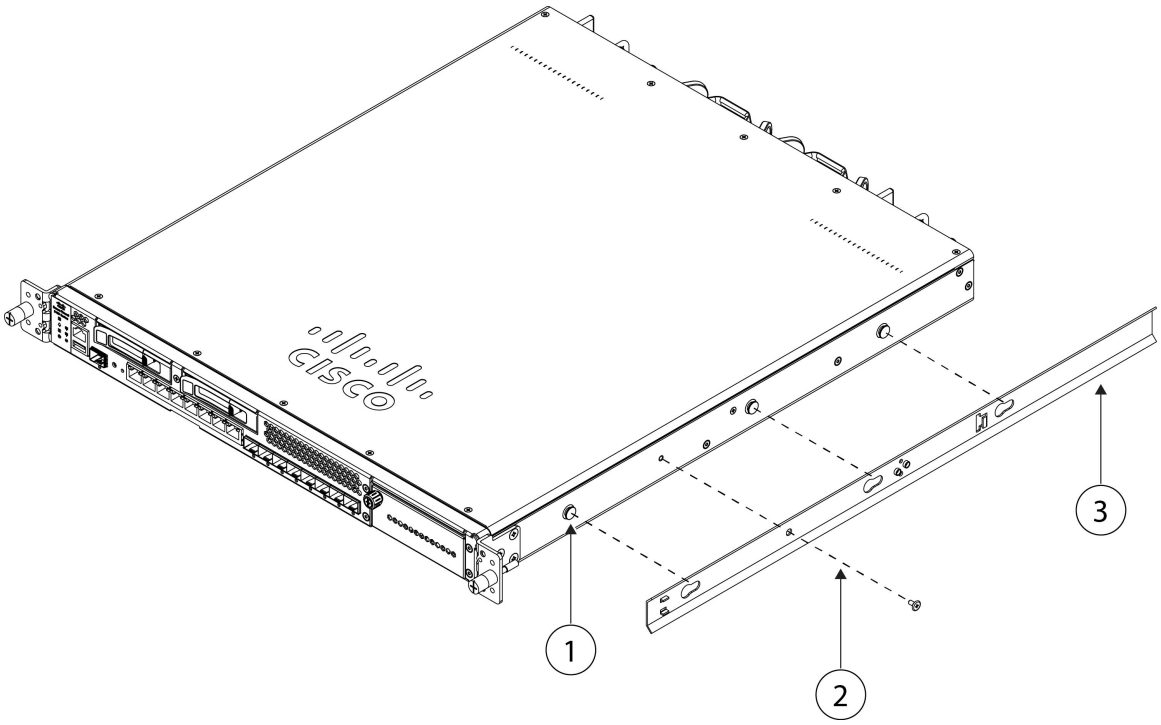
1	Step groove on the cable management bracket	**2**	Rack-mount bracket
3	Cable management bracket	**4**	8-32 x 0.375-inch Phillips screws (two per bracket)

b) Install two 8-32 x 0.375 inch Phillips screws through the inside of the slide-rail locking bracket to secure the cable management bracket to slide-rail locking bracket.

Step 3 Attach the inner rails to the sides of the chassis:

a) Remove the inner rails from the slide rail assemblies.
b) Align an inner rail with each side of the chassis:
   - Align the inner rail so that the three slots on the rail line up with the three pegs on the side of the chassis.

Figure 5: Line up the inner rail with the pegs on the chassis



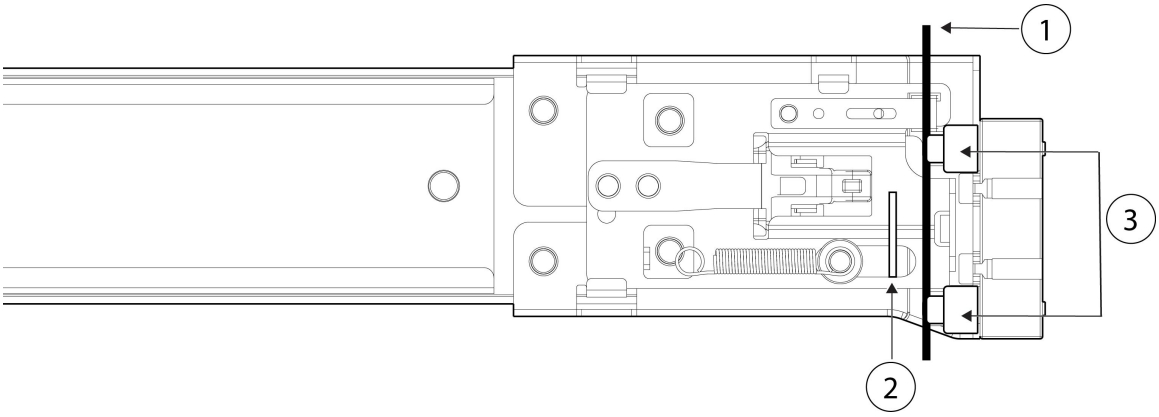
1	Mounting peg on the chassis for the keyed slot	**2**	M3 x 0.5 x 6- mm Phillips screws (one per side)
3	Inner rail		—

c) Set the keyed slots over the screws/pegs, and then slide the rail toward the front to lock it in place on the screw/pegs. The rear key slot has a metal clip that locks over the screw/peg.
d) Using one M3 x 0.5 x 6-mm Phillips screw, secure the inner rail to the side of the chassis to prevent sliding.
e) Install the second inner rail to the opposite side of the chassis and secure with the other M3 x 0.5 x 6-mm screw.

Step 4 Open the front securing plate on both slide-rail assemblies. The front end of the slide-rail assembly has a spring-loaded securing plate that must be open before you can insert the mounting pegs into the rack-post holes.

On the outside of the assembly, push the green arrow button toward the rear to open the securing plate.

Figure 6: Front securing mechanism inside the front end



1	Securing plate shown pulled back to open position	**2**	Rack post
3	Front mounting pegs **Note** Works with square slots, 7.1 mm holes, and 10-32 threaded holes.		—

Step 5 Install the slide rails into the rack:

a) Align one slide-rail assembly front end with the front rack-post holes that you want to use.

The slide rail front-end wraps around the outside of the rack post and the mounting pegs enter the rack-post holes from the outside-front.

Note
The rack post must be between the mounting pegs and the open securing plate.

b) Push the mounting pegs into the rack-post holes from the outside-front.

c) Press the securing plate release button marked 'PUSH.' The spring-loaded securing plate closes to lock the pegs in place.

d) Adjust the slide-rail length, and then push the rear mounting pegs into the corresponding rear rack-post holes. The slide rail must be level front-to-rear.

The rear mounting pegs enter the rear rack-post holes from the inside of the rack post.

e) Attach the second slide-rail assembly to the opposite side of the rack. Make sure that the two slide-rail assemblies are at the same height with each other and are level front-to-back.

f) Pull the inner slide rails on each assembly out toward the rack front until they hit the internal stops and lock in place.

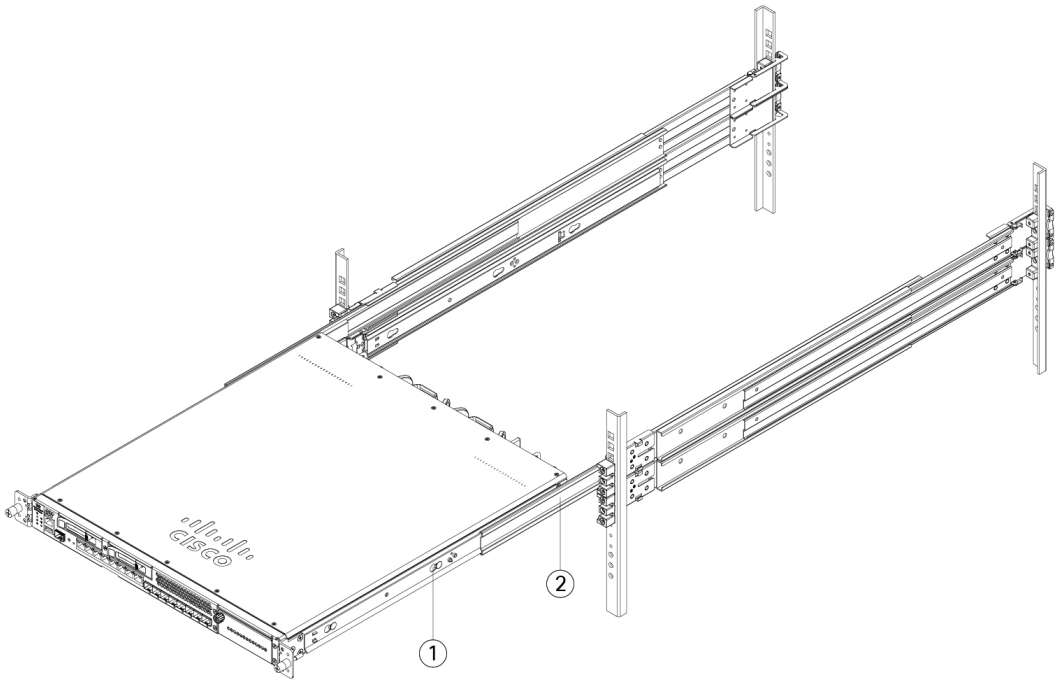
Step 6 Insert the chassis into the slide rails.

a) Align the rear of the inner rails that are attached to the chassis sides with the front ends of the empty slide rails on the rack.

b) Push the inner rails into the slide rails on the rack until they stop at the internal stops.

c) Slide the release clip toward the rear on both inner rails, and then continue pushing the chassis into the rack until the mounting brackets meet the front of the slide rail.

Figure 7: Inner rail release clip



1	Inner rail release clip	**2**	Inner rail attached to chassis

Step 7 Use the captive screws on the front of the mounting brackets to fully secure the chassis to the rack.

What to do next

- Install the cables according to your software configuration as described in the Cisco Secure Firewall 3100 Getting Started Guide.

Related Topics

Product ID numbers
Ground the chassis, on page 11

Ground the chassis

Note Grounding the chassis is required, even if the rack is already grounded. A grounding pad with two threaded M4 holes is provided on the chassis for attaching a grounding lug. The grounding lug must be Nationally Recognized Testing Laboratory (NRTL)-listed. In addition, a copper conductor (wires) must be used and the copper conductor must comply with National Electrical Code (NEC) code for ampacity.

You need the following items that you provide:

- Wire-striping tool
- Crimping tool
- Grounding cable
- Two star lock washers for the 10-32 x 0.375 inch-screws used to secure the ground lug
- You need the following items from the accessory kit:
  - Grounding lug #6 AWG, 90 degree, #10 post
  - Two 10-32 x 0.38-inch screws used to secure the grounding lug

Safety warnings

Take note of the following warnings:

Warning **Statement 1024—**Ground Conductor

This equipment must be grounded. To reduce the risk of electric shock, never defeat the ground conductor or operate the equipment in the absence of a suitably installed ground conductor. Contact the appropriate electrical inspection authority or an electrician if you are uncertain that suitable grounding is available.

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.

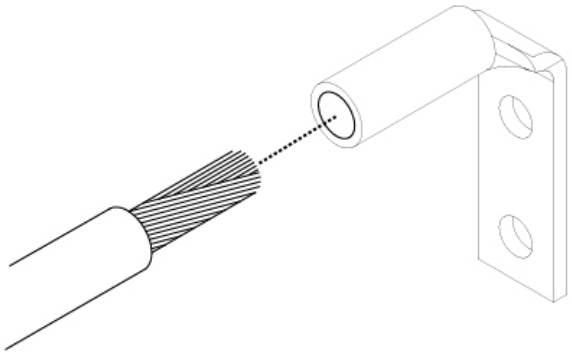
If your unit has modules, secure them with the provided screws.

Procedure

Step 1 Use a wire-stripping tool to remove approximately 0.75 inches (19 mm) of the covering from the end of the grounding cable.

Step 2 Insert the stripped end of the grounding cable into the open end of the grounding lug.

Figure 8: Insert the cable into the grounding lug

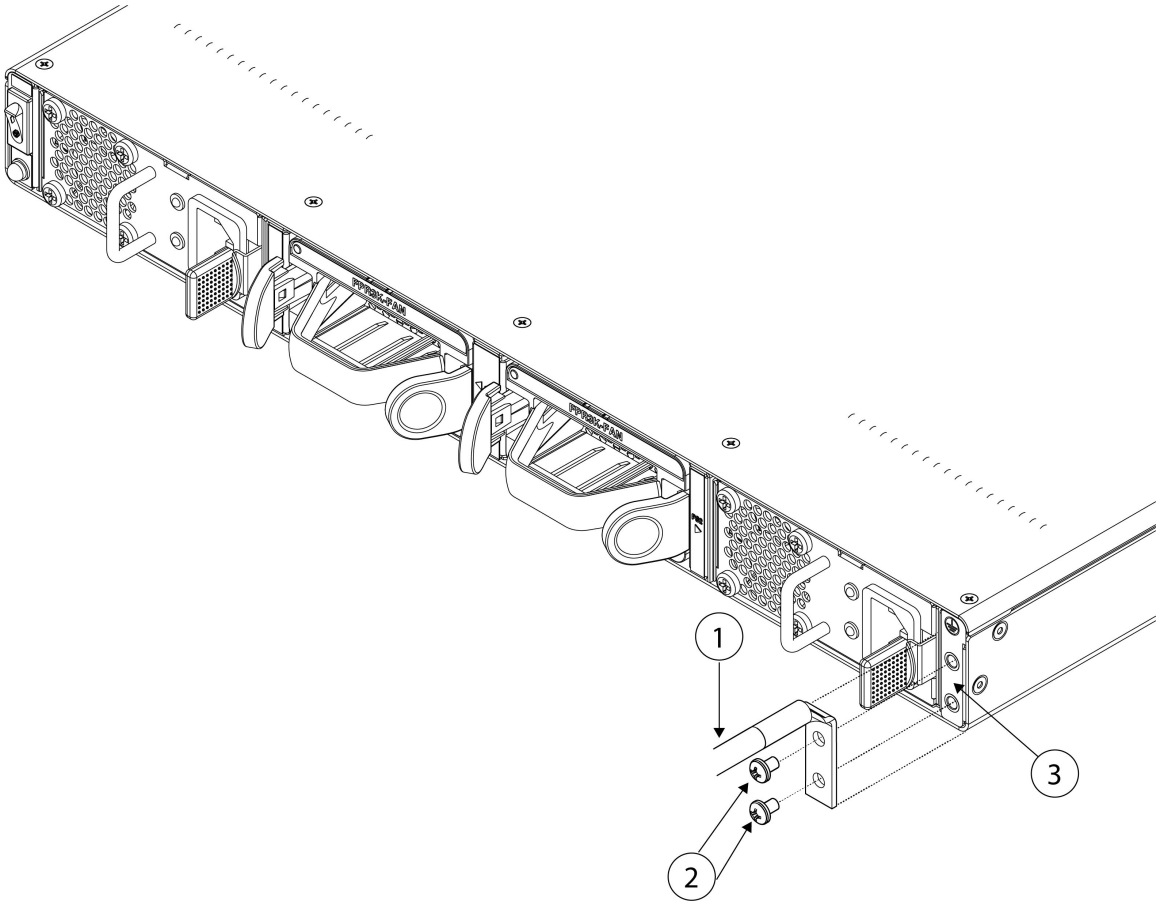


Step 3 Use the crimping tool to secure the grounding cable in the grounding lug.

Step 4 Remove the adhesive label from the grounding pad on the chassis.

Step 5 Place the grounding lug against the grounding pad so that there is solid metal-to-metal contact, and insert the two screws with washers through the holes in the grounding lug and into the grounding pad.

Figure 9: Attach the grounding lug



1	Grounding lug	**2**	Two 10-32 x 0.38-inch screws
3	Ground pad		—

Step 6 Make sure that the lug and cable do not interfere with other equipment.

Step 7 Prepare the other end of the grounding cable and connect it to an appropriate grounding point in your site to ensure adequate earth ground.

What to do next

Install the FIPS opacity shield if necessary. See Install the FIPS opacity shield for the procedure.

Install the cables according to your default software configuration as described in the Cisco Secure Firewall 3100 Getting Started Guide.