



# Installing the Rail System for Cisco ASA and IPS Security Appliances

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September 19, 2007

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## Introduction

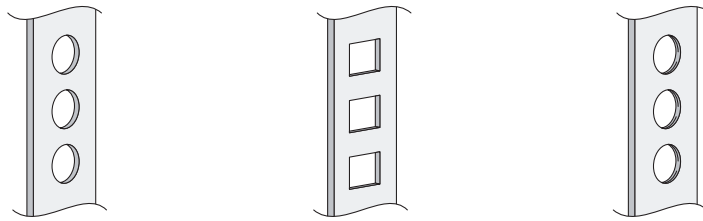
This rail system supports a variety of products that can be installed in round-, square, or threaded-hole racks. The following illustration shows the three rack hole-types. Use [Figure 1 on page 2](#) to identify your rack type and then follow the installation steps accordingly.



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*Americas Headquarters:*  
Cisco Systems, Inc., 170 West Tasman Drive, San Jose, CA 95134-1706 USA

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*FINAL REVIEW — CISCO CONFIDENTIAL***Figure 1** *Round-, Square-, and Threaded-Hole Racks*

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No tools are required for the round- and square-hole racks. You may need screws that fit the threaded-hole rack and a driver for those screws. You need a standard screwdriver to remove the round- and square-hole studs from the slide assemblies when you install the security appliance in a threaded-hole rack.

This rail system supports a minimum rack depth of 24 in. (60.96 cm) and a maximum rack depth of 36.5 in. (92.71 cm).

## Rail System Kit Contents

The rail system kit contains the following items:

- Two slide assemblies
- Two chassis rails
- Four Velcro straps
- Six zip ties
- One cable management arm
- A package of miscellaneous parts (screws, and so forth)
- One cable management arm stop bracket

## Space and Airflow Requirements

To allow for servicing and adequate airflow, follow these space and airflow requirements when choosing where to place a rack:

- Leave a minimum clearance of 25 in. (63.5 cm) in front of the rack.
- Leave a minimum clearance of 30 in. (76.2 cm) behind the rack.
- Leave a minimum clearance of 48 in. (121.9 cm) from the back of the rack to the back of another rack or row of racks.

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IPS 4270-20 draws in cool air through the front and expels warm air through the back. The front and back rack doors must be adequately ventilated to allow ambient room air to enter the chassis and the back must be adequately ventilated to allow warm air to escape from the chassis.

## Installing the Security Appliance in the Rack



### Warning

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. Statement 1006



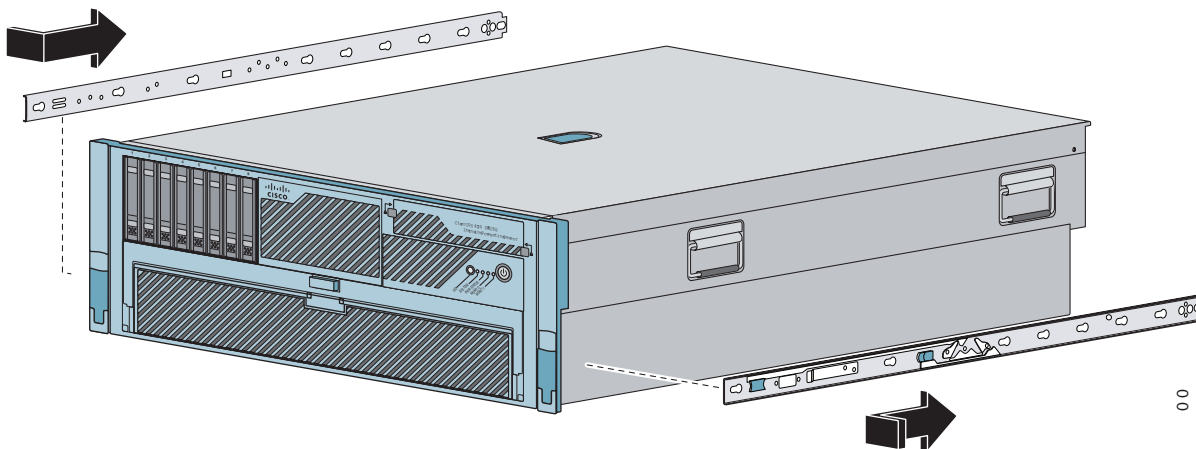
### Warning

This procedure requires two or more people to position IPS 4270-20 on the slide assemblies before pushing it in to the rack.

To install IPS 4270-20 in the rack, follow these steps:

### Step 1

Attach the chassis side rail to IPS 4270-20 by aligning the chassis rail to the stud on IPS 4270-20, pressing the chassis side rail in to the stud, and then sliding the chassis side rail backwards until you hear the latch catch.



### Note

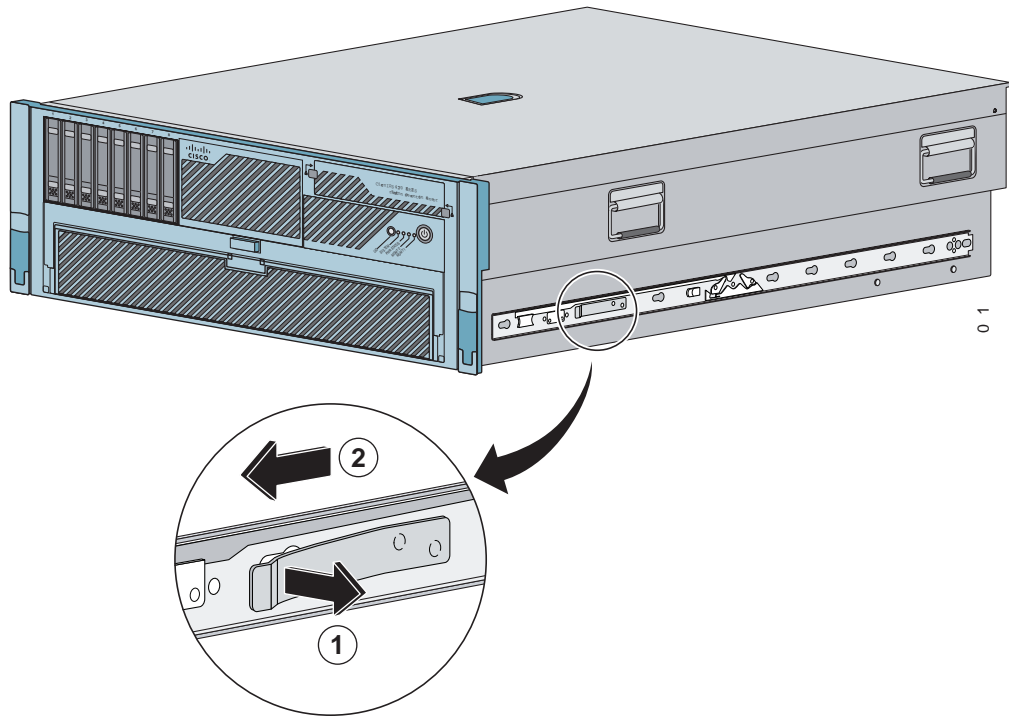
The tapered end of the chassis side rail should be at the back of IPS 4270-20. The chassis side rail is held in place by the inner latch.

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**Step 2** Repeat Step 1 for each chassis side rail.

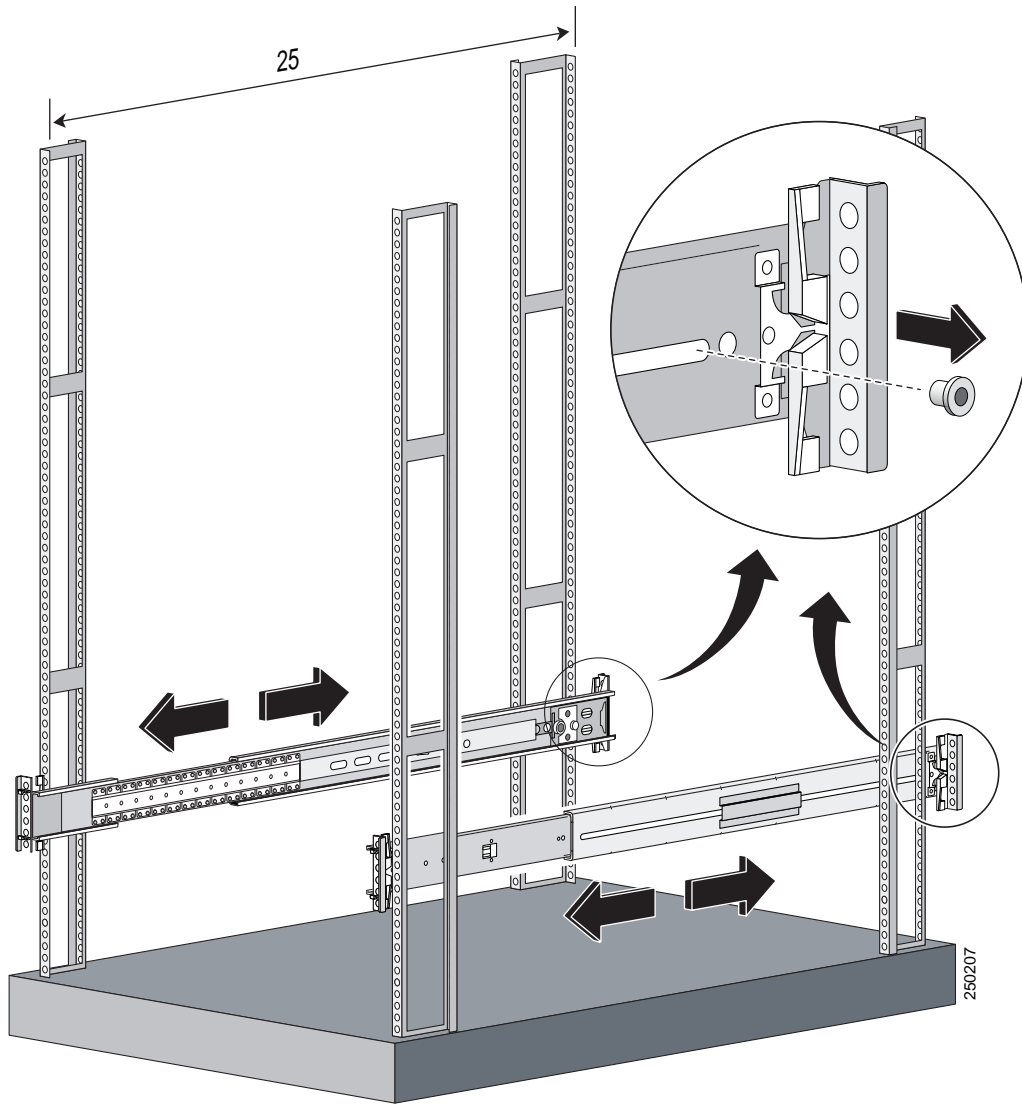
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**Step 3** To remove the chassis side rail, lift the latch, and slide the rail forward.



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**Step 4** If you are installing IPS 4270-20 in a shallow rack, one that is less than 28.5 in. (72.39 cm), remove the screw from the inside of the slide assembly before continuing with Step 5.



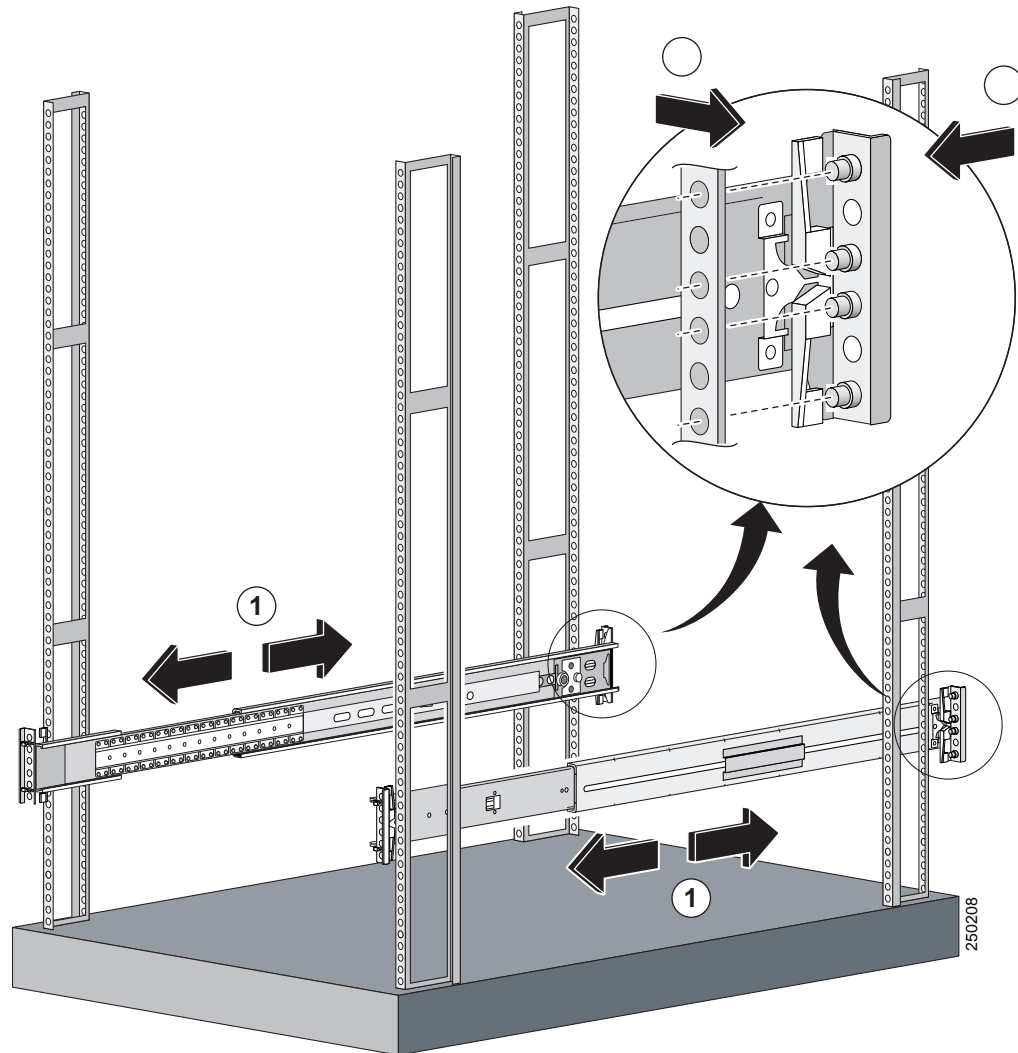
**Step 5** Attach the slide assemblies to the rack.

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For round- and square-hole racks:

- a. Line up the studs on the slide assembly with the holes on the inside of the rack and snap in to place.
- b. Adjust the slide assembly lengthwise to fit the rack.

The spring latch locks the slide assembly into position.



- c. Repeat for each slide assembly.  
Make sure the slide assemblies line up with each other in the rack.
- d. Lift the spring latch to release the slide assembly if you need to reposition it.

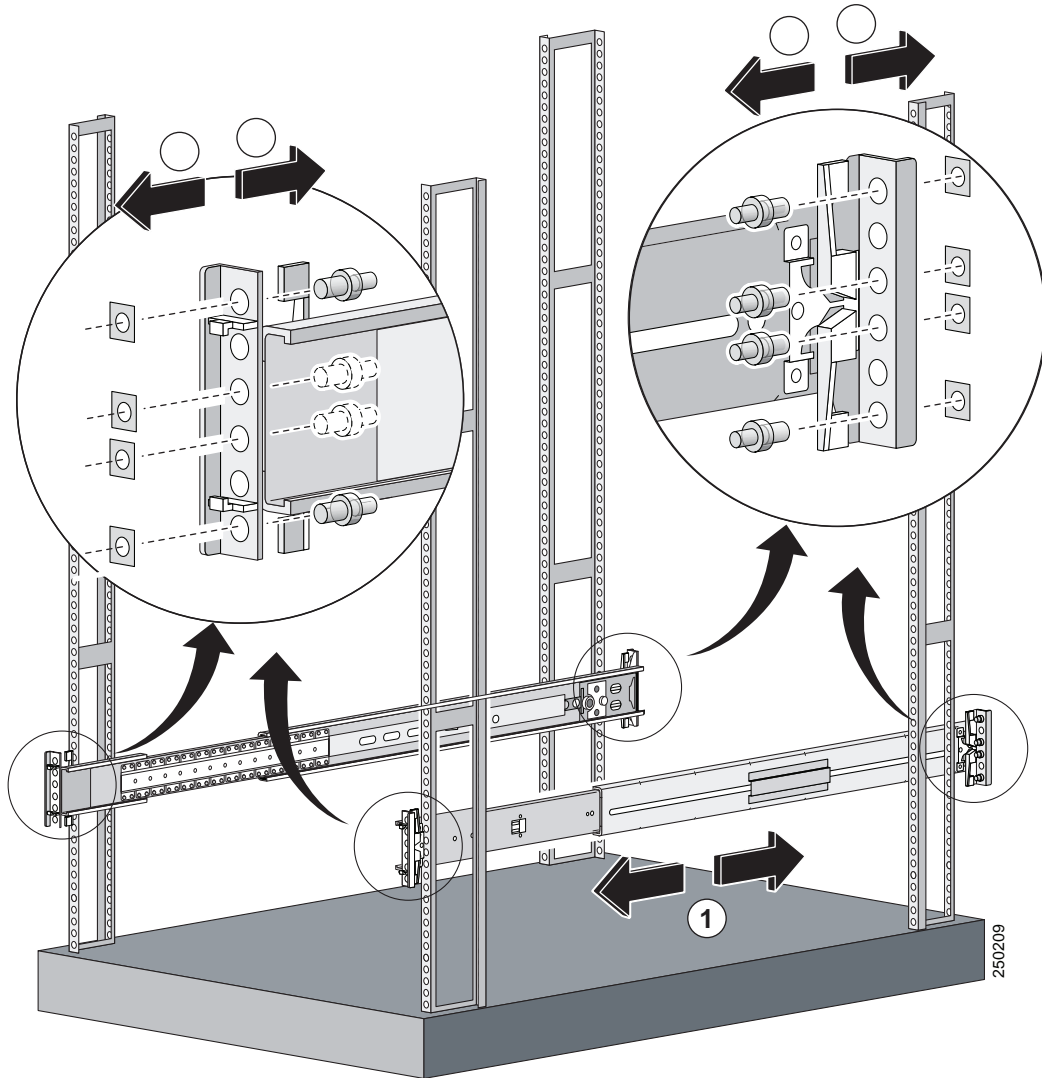
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For threaded-hole racks:

- a. Remove the eight round- or square-hole studs on each slide assembly using a standard screwdriver.



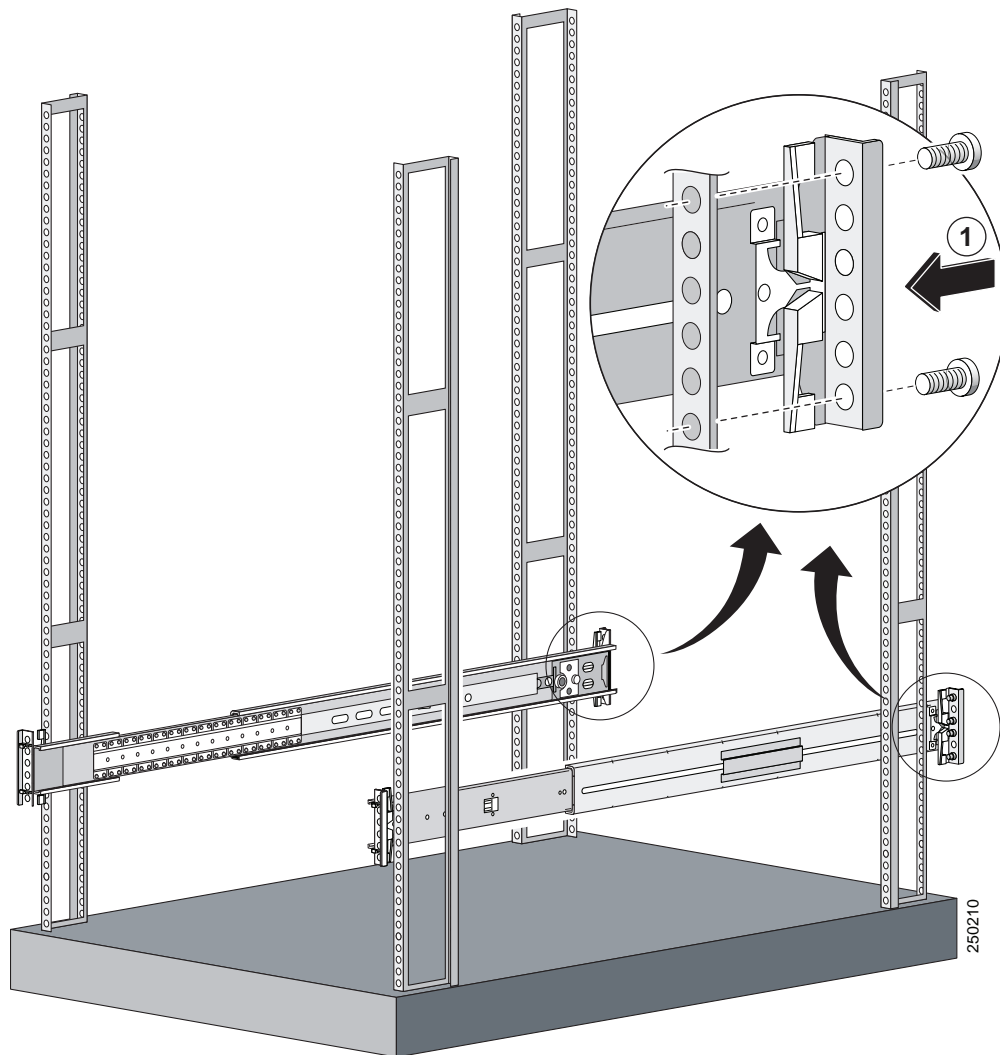
**Note** You may need a pair of pliers to hold the retaining nut.





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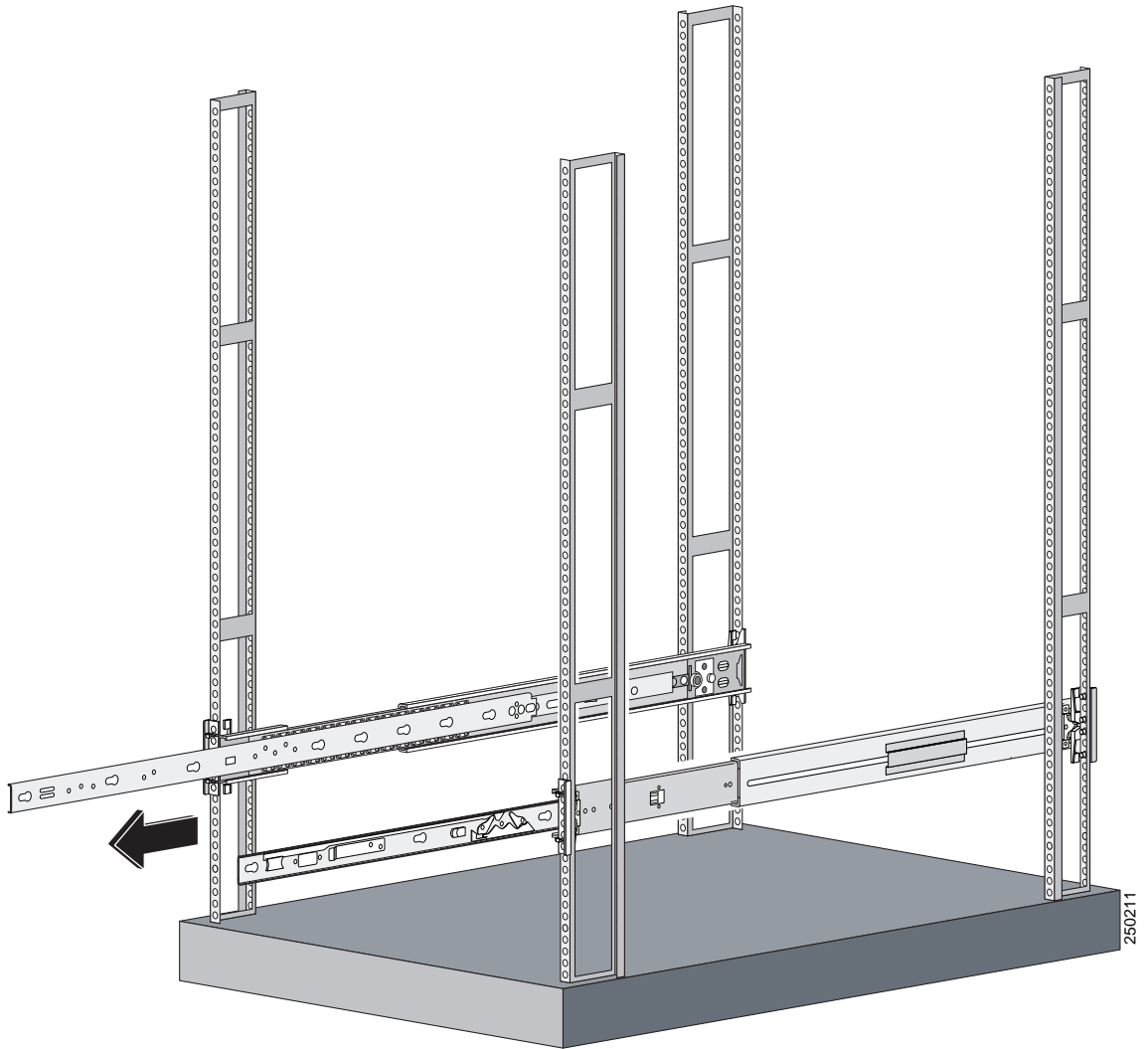
- b. Line up the bracket on the slide assembly with the rack holes, install two screws (top and bottom) on each end of the slide assembly.



- c. Repeat for each slide assembly.

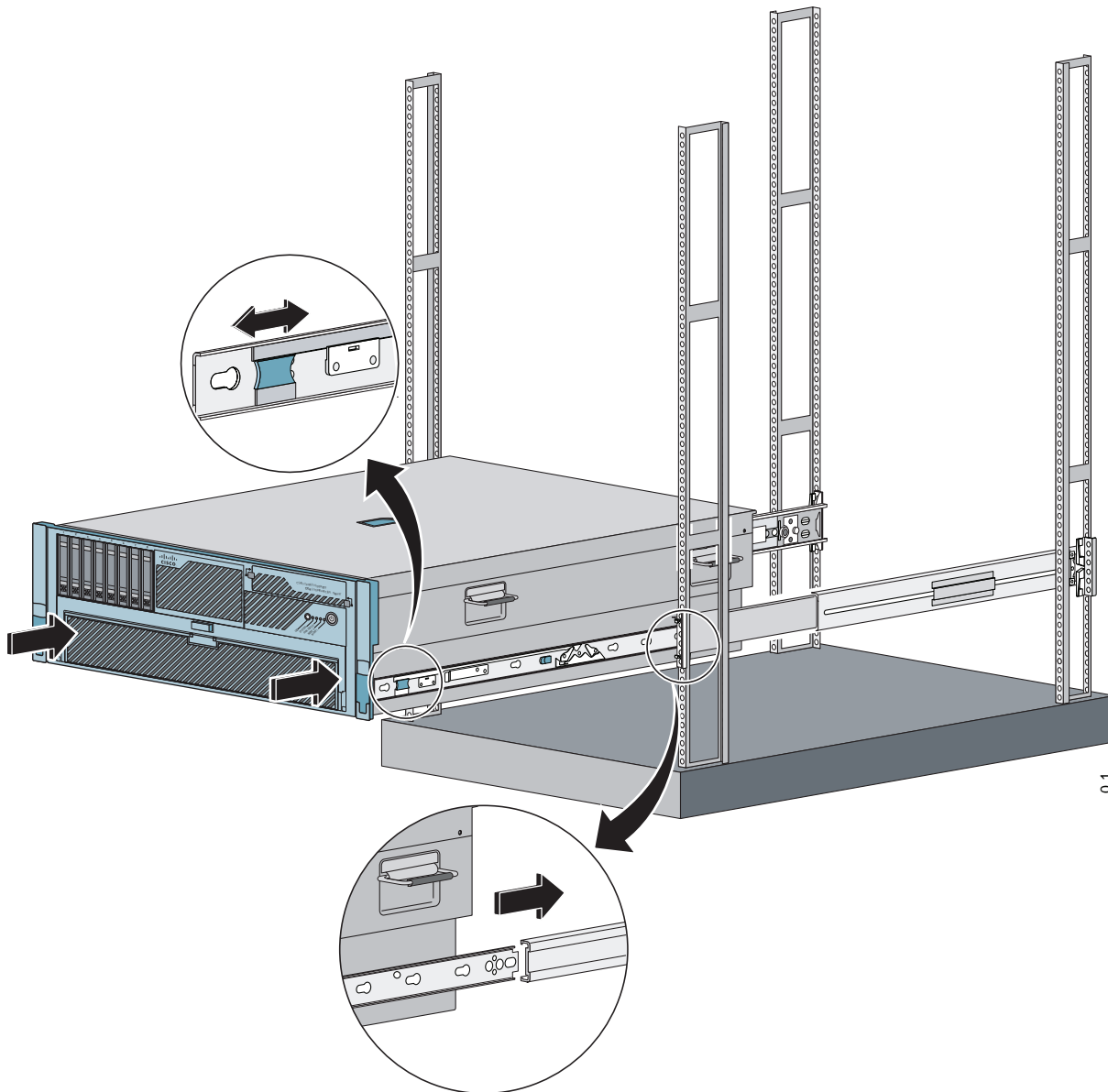
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**Step 6** Extend the slide assemblies out of the rack.



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- Step 7** Align the chassis side rails on IPS 4270-20 with the slide assembly on both sides of the rack, release the blue slide tab (by either pulling the tab forward or pushing the tab back), and carefully push IPS 4270-20 in to place.

**Caution**

Keep IPS 4270-20 parallel to the floor as you slide it into the rails. Tilting IPS 4270-20 up or down can damage the slide rails.

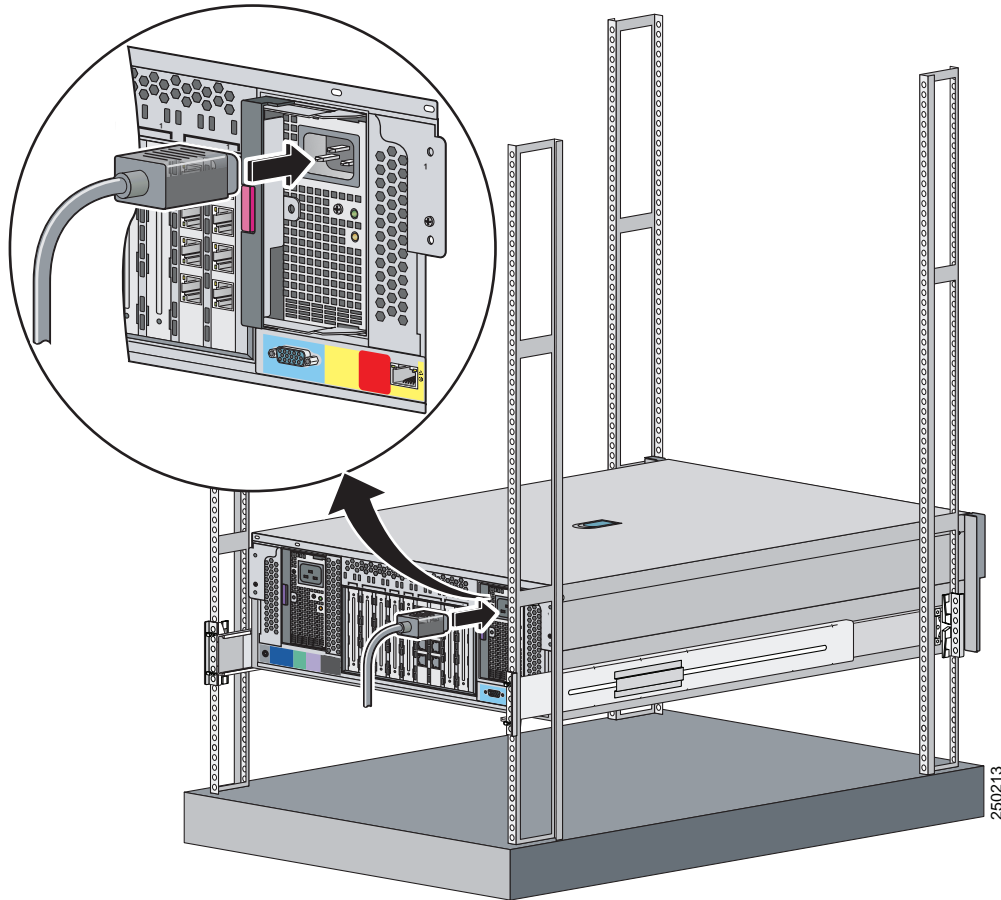
- Step 8** If you are using the cable management arm, install it before you connect and route any cables. For the procedure, see [Installing the Cable Management Arm, page 14](#).

**Note**

You may also need longer cables when the arm is installed (an extra length of around 3 feet is required).

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**Step 9** Install the electrical cables at the back of IPS 4270-20.



For information on installing connections to IPS 4270-20, refer to “[Installing IPS 4270-20](#),” in *Installing Cisco Intrusion Prevention System Appliances and Modules 6.0*.

## Extending IPS 4270-20 from the Rack

You can extend IPS 4270-20 from the rack for service or removal.



**Caution**

You can only extend IPS 4270-20 from the rack if the cable management arm is correctly installed with the cables routed through it or if all cables are disconnected from the back of the chassis. Otherwise, you risk damage to the cables and a possible shock hazard if the power cables get caught between the chassis and the rack.

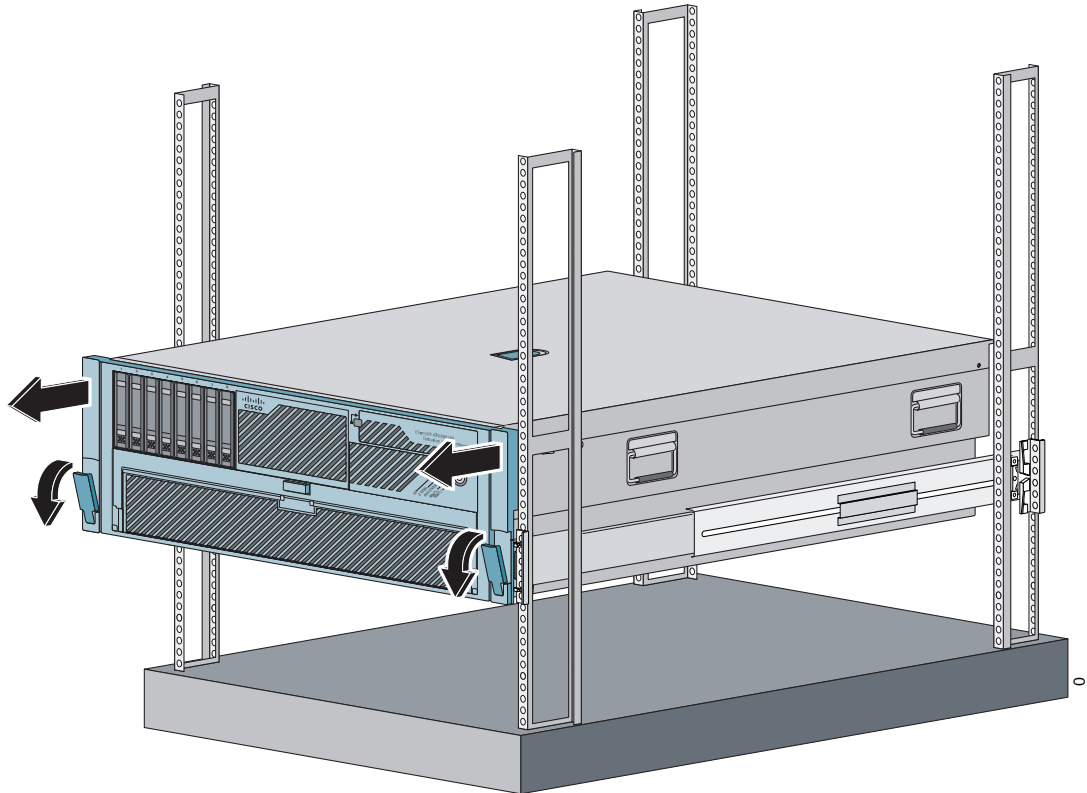
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To extend IPS 4270-20 from the rack, follow these steps:

- Step 1** Pull the quick-release levers on each side of the front bezel of IPS 4270-20 to release it from the rack and extend it on the rack rails until the rail-release latches engage.



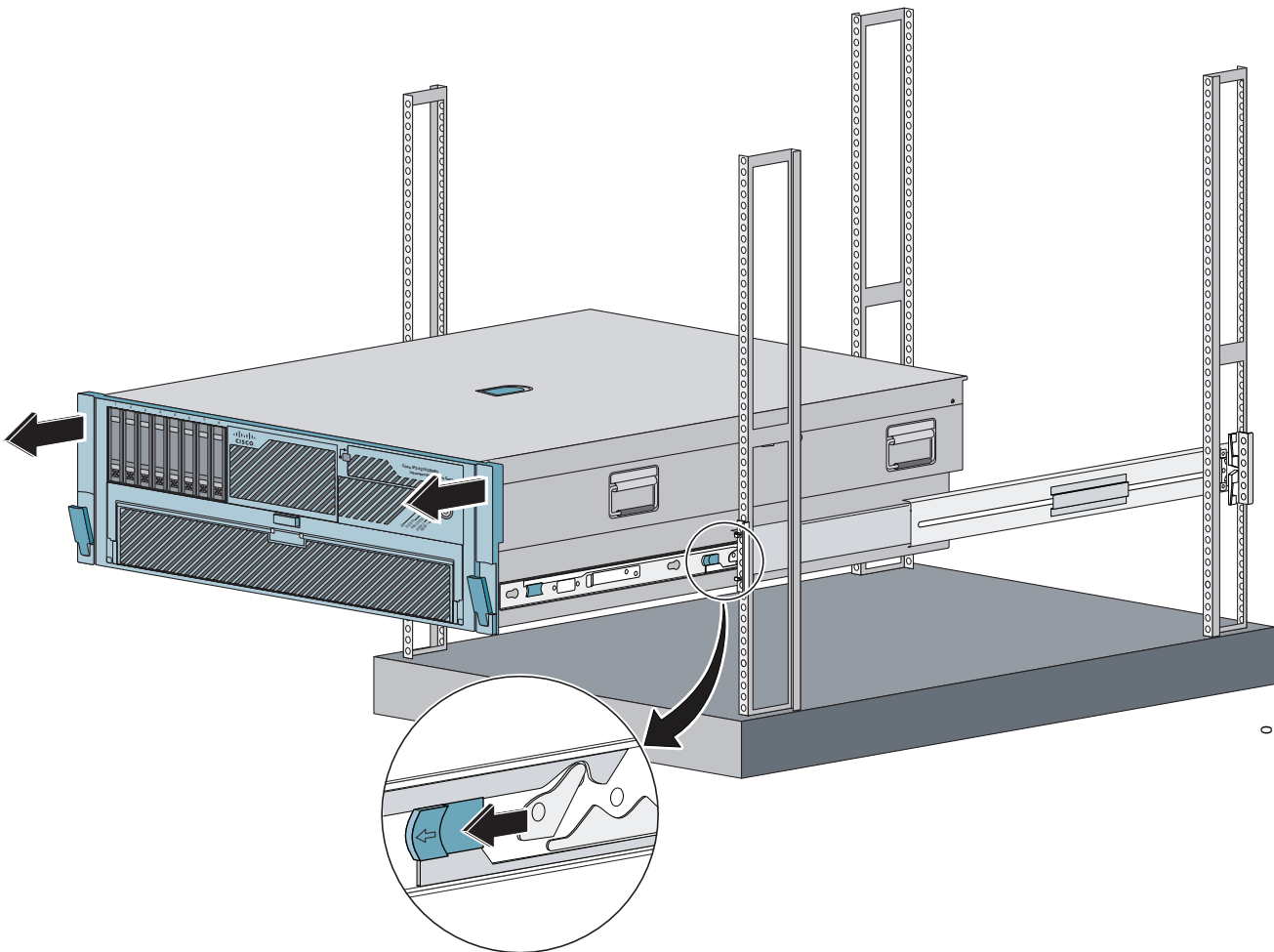
**Note** The release latches lock in to place when the rails are fully extended.



- Step 2** After performing the installation or maintenance procedure, slide IPS 4270-20 in to the rack by pressing the rail-release latches.

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- Step 3** To completely remove IPS 4270-20 from the rack, disconnect the cables from the back of IPS 4270-20, push the release tab in the middle of the slide assembly forward, and pull IPS 4270-20 from the rack.



## Installing the Cable Management Arm

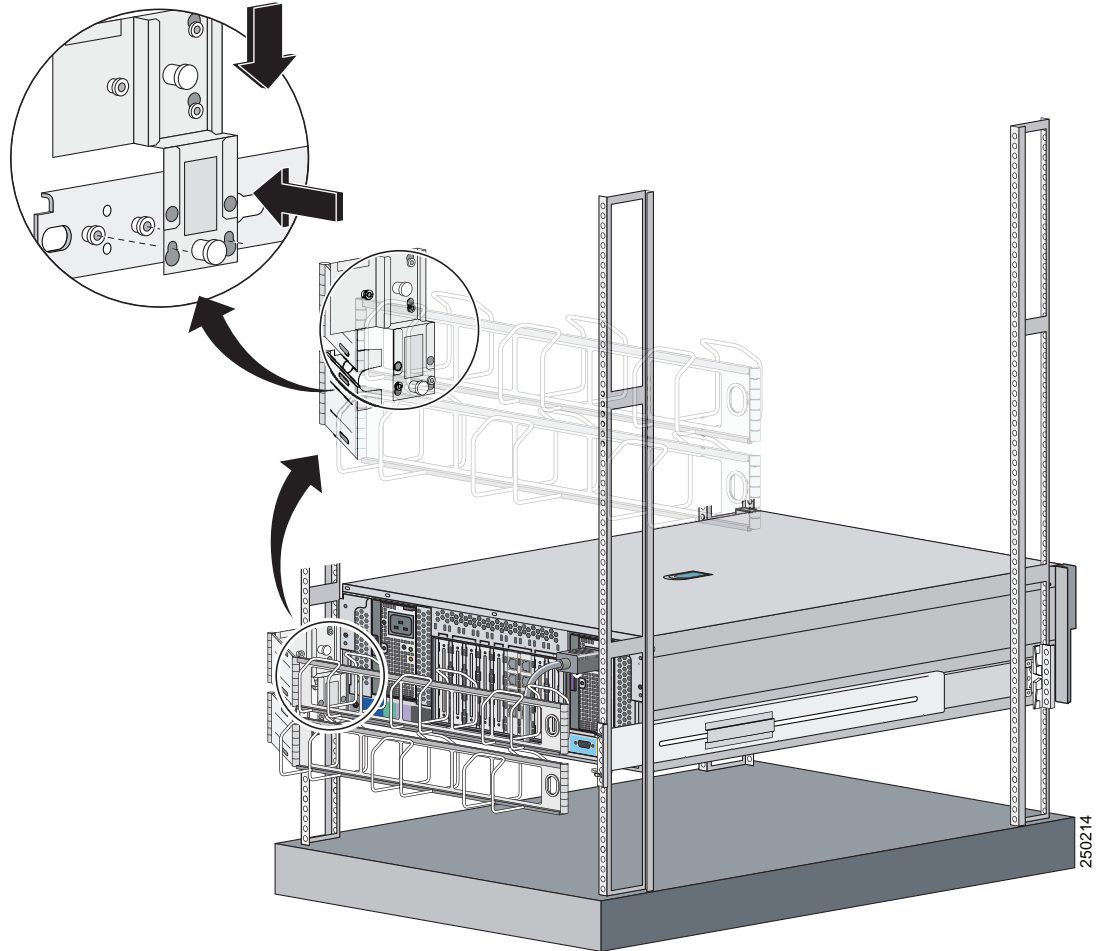
**Note**

To hinge the cable management arm on the back right-hand side of the rack, see [Converting the Cable Management Arm, page 18](#).

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To install the cable management arm, follow these steps:

- Step 1** Align the slide bracket on the cable management arm with the stud on the back of IPS 4270-20 and align the two studs at the back of the chassis side rail, then slide down and lock in to place.

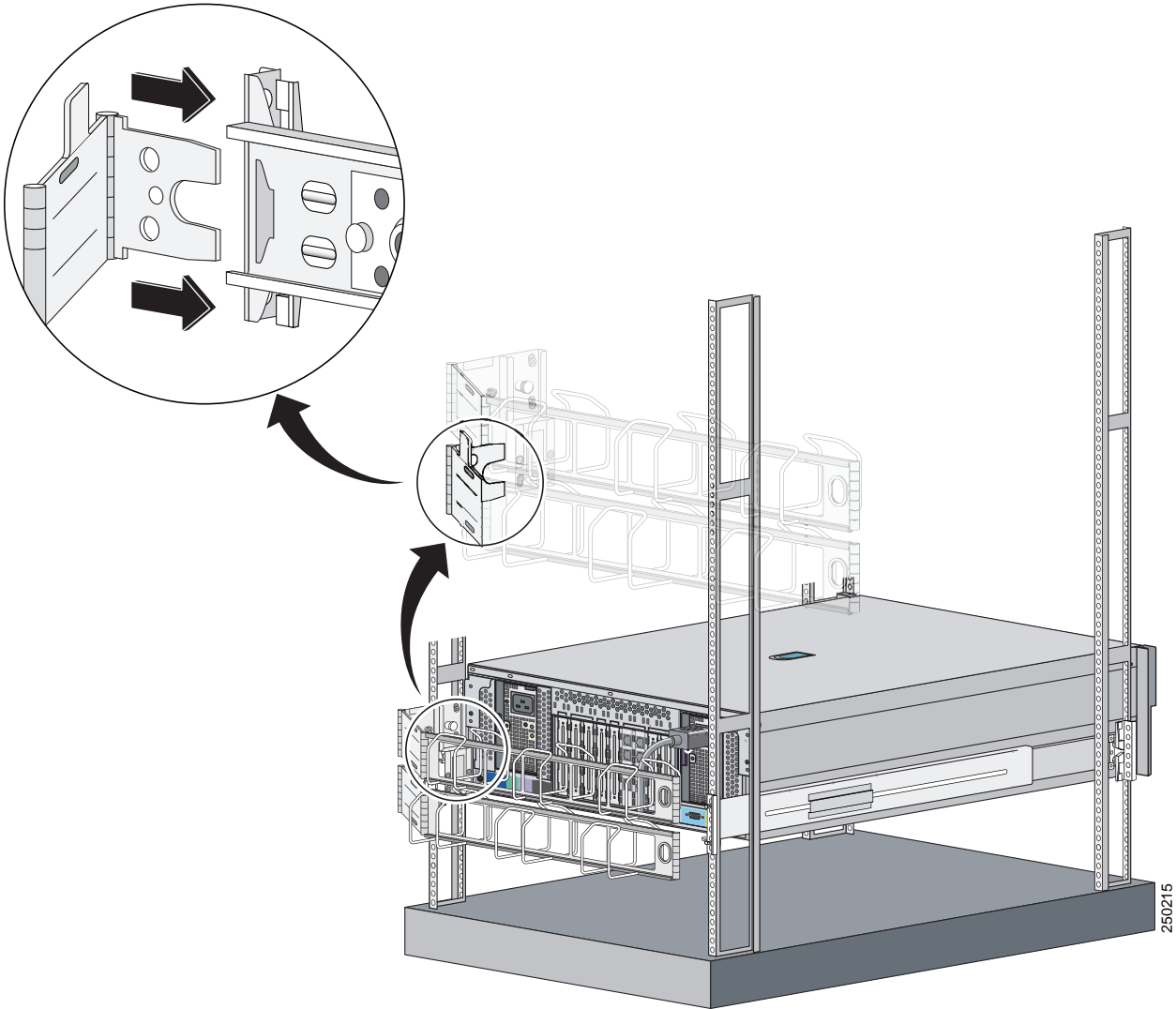


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**Step 2** Attach the cable trough to the back of the rack by pushing the lower metal tab on the cable management arm in to the slide assembly, then lifting the spring pin to lock it in to place.

  
**Caution**

Make sure the metal tab is on the outside of the upper part of the cable management arm.



**Note** When properly installed, the cable management arm is attached to IPS 4270-20 and the rack rail.

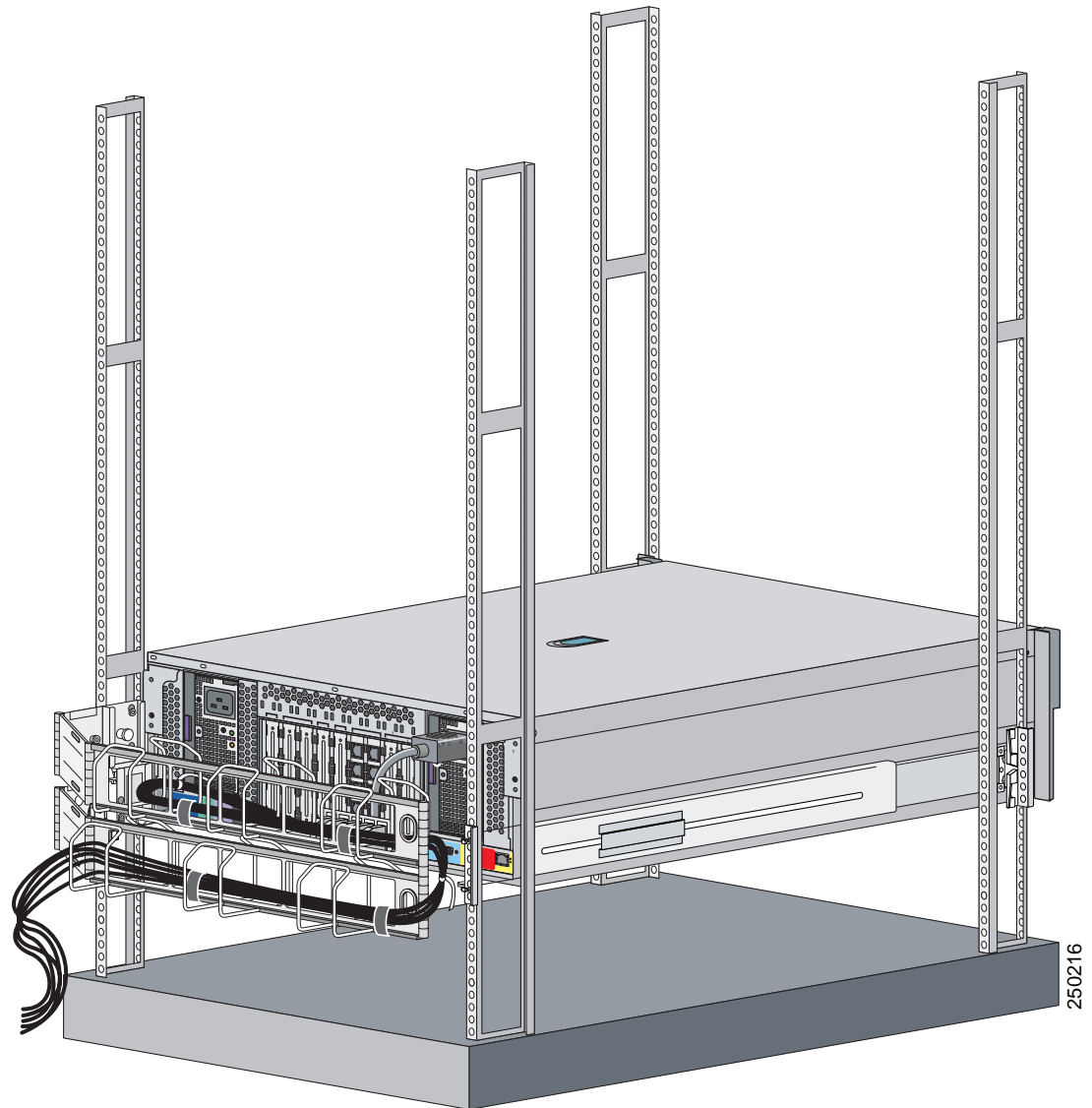


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**Step 3** Route the cables through the cable trough and secure the cables with the Velcro straps and black tie wraps.



**Note** After you route the cables through the cable management arm, make sure the cables are not pulled tight when IPS 4270-20 is fully extended.

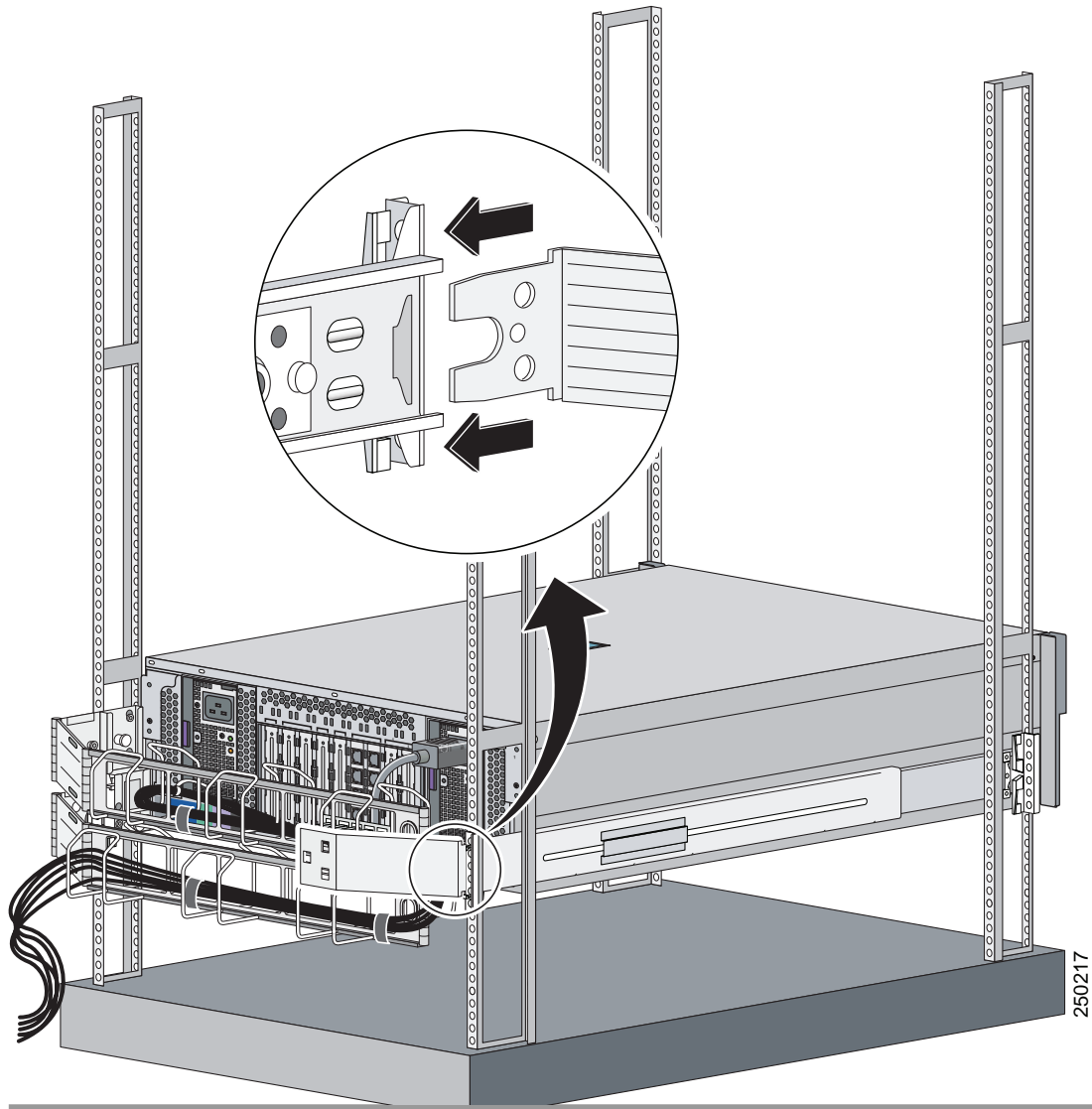


**Caution**

Do not use the straps and zip ties to tie the two parts of the cable management arm together.

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- Step 4** Attach the cable management arm stop bracket to the ride side of the back of the rack by inserting the stop bracket into the cable management arm bracket.



## Converting the Cable Management Arm



**Note** The cable management arm is designed for ambidextrous use. You can convert the cable management arm from a left-hand swing to a right-hand swing.

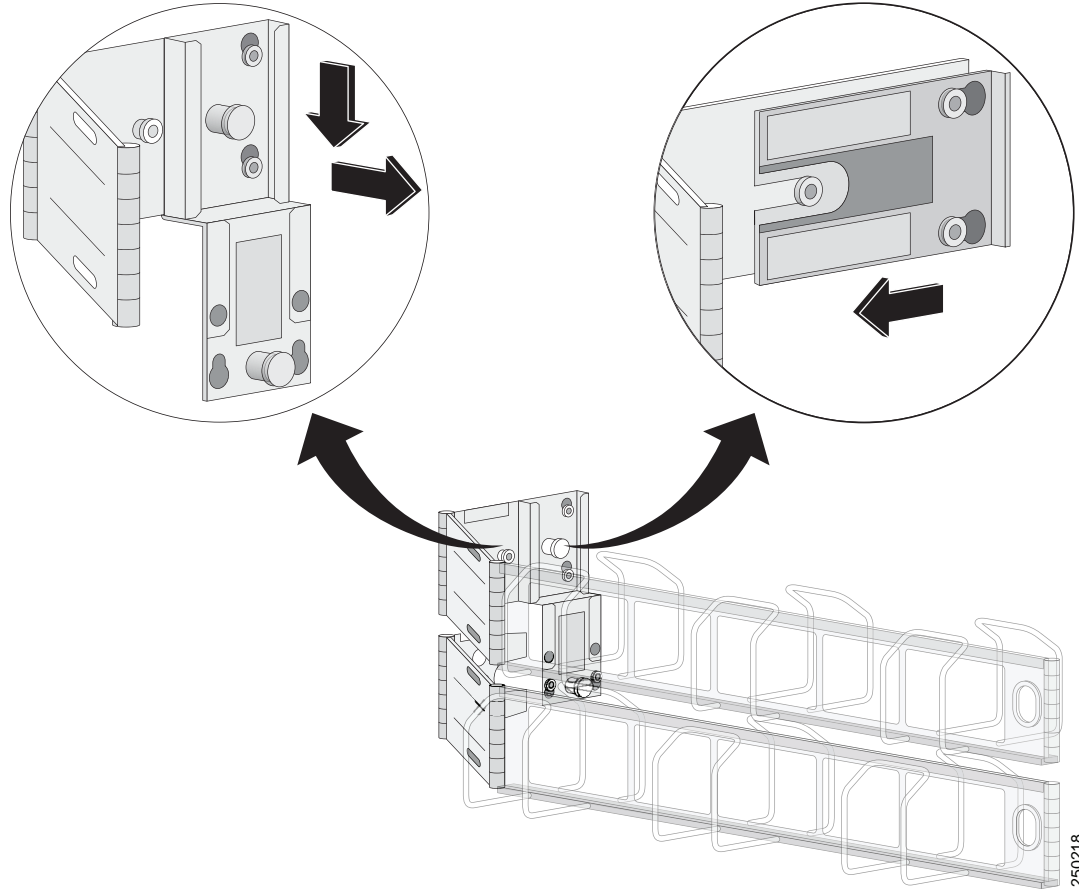


**Note** Make sure to orient the management arm with the cable trough facing upward.

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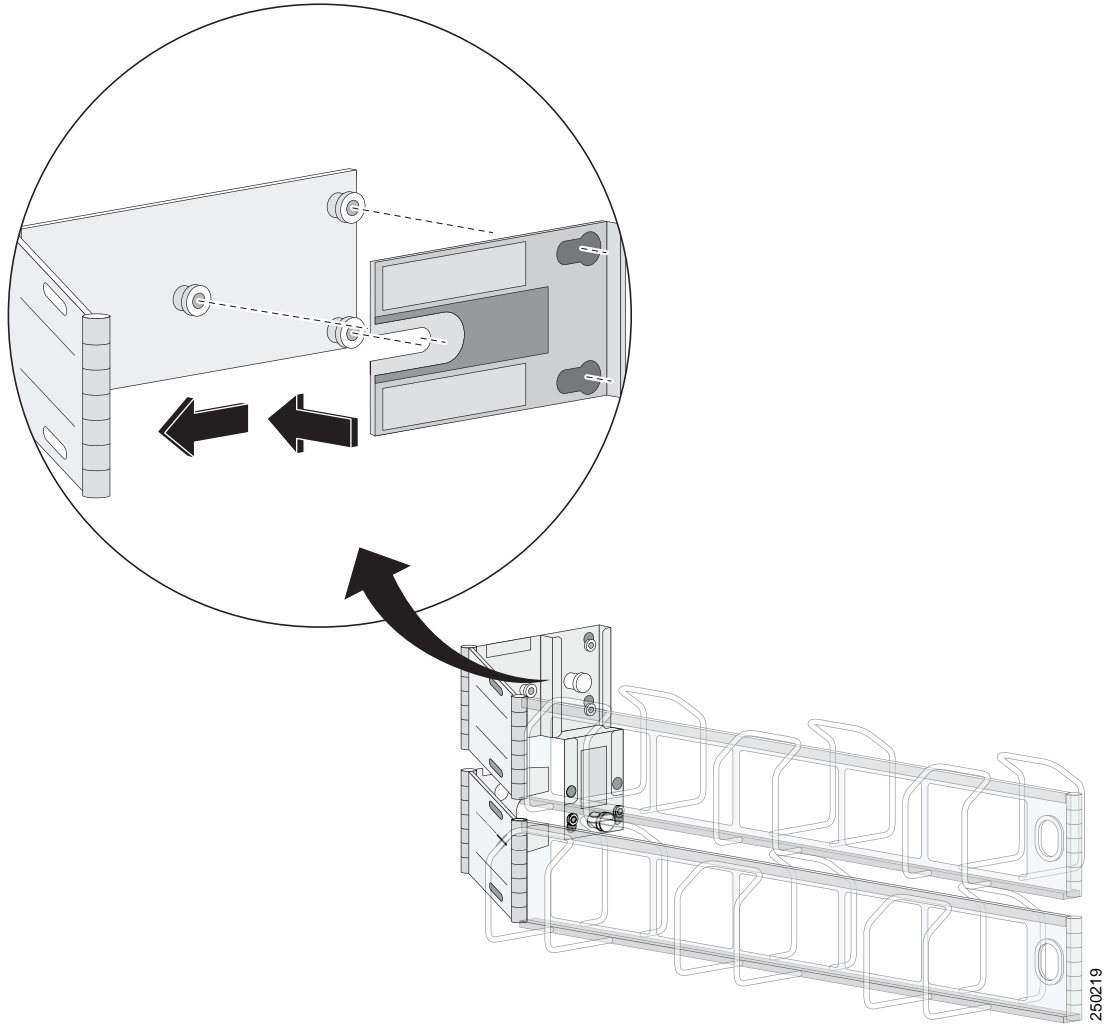
To convert the cable management arm swing, follow these steps:

**Step 1** Pull up the spring pin and slide the bracket off the cable management arm.



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**Step 2** Remove the bottom sliding bracket and flip it over to the top of the bracket aligning the studs.

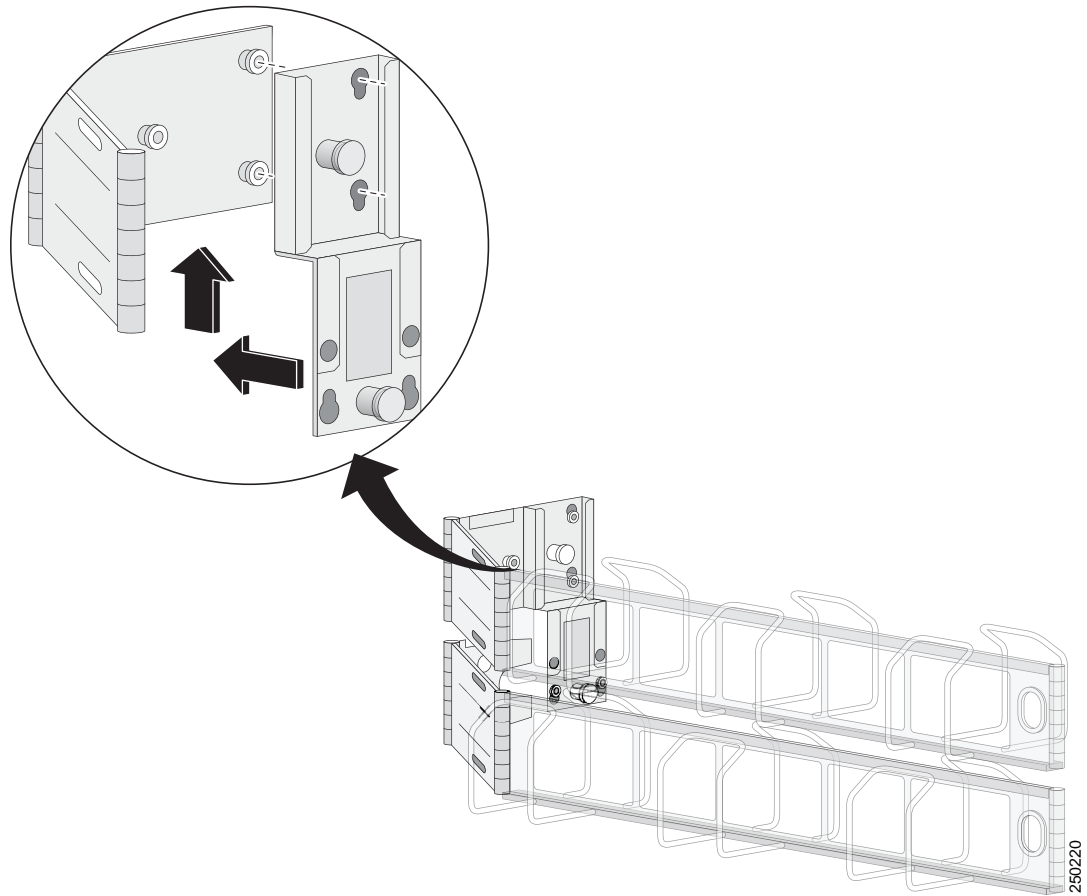


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- Step 3** On the other side of the sliding bracket, align the spring pin with the studs and key holes, and slide until the pin snaps in to place.



**Note** The sliding bracket only fits one way because the hole for the spring pin is offset.



## Related Documentation

You can find supporting documentation for the Cisco ASA and IPS security appliances on Cisco.com at:

- Cisco ASA 5500 Series Adaptive Security Appliance documentation:  
[http://www.cisco.com/en/US/products/ps6120/tsd\\_products\\_support\\_series\\_home.html](http://www.cisco.com/en/US/products/ps6120/tsd_products_support_series_home.html)
- Cisco IPS 4200 Series Sensors documentation:  
[http://www.cisco.com/en/US/products/hw/vpndevc/ps4077/tsd\\_products\\_support\\_series\\_home.html](http://www.cisco.com/en/US/products/hw/vpndevc/ps4077/tsd_products_support_series_home.html)

# Obtaining Documentation, Obtaining Support, and Security Guidelines

For information on obtaining documentation, obtaining support, providing documentation feedback, security guidelines, and also recommended aliases and general Cisco documents, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>

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This document is to be used in conjunction with the documents listed in the “[Related Documentation](#)” section.

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