Unpacking and Installing the Chassis

This chapter contains the procedures for unpacking and installing the Cisco ASR 9001 Router. It includes these sections:

Pre-Installation Considerations and Requirements

Before you perform any procedures in this chapter, review these sections:

In particular, observe the guidelines for preventing electrostatic discharge (ESD) damage described in Preventing Electrostatic Discharge Damage. Use the figure as a reference in locating and using the ESD sockets on the front of the router chassis.

For additional safety and compliance information, see the Regulatory Compliance and Safety Information for the Cisco ASR 9000 Series Aggregation Services Routers.

Note
A fully-equipped ASR 9901 router with 2 power modules and 3 fans can weigh as much as 55.97 pounds (25.4 kg); an empty chassis weighs 47.62 pounds (21.6 kg). A fully-equipped ASR 9001 router with two power modules can weigh as much as 37.91 pounds (17.2 kg); an empty chassis weighs 24.69 pounds (11.2 kg). The chassis is designed to be lifted by two persons.

Caution
The router is not designed to be installed as a shelf-mounted or a free-standing router. The router must be installed in a rack that is secured to the building structure. You must install the router in either a telco-style frame or a four-post equipment rack.

Unpacking the Router

Follow these steps as mentioned in the figures to unpack the Cisco ASR 9903 Router, Cisco ASR 9901 Router, or Cisco ASR 9001 Router from its shipping container.

Figure 1: Unpacking the Cisco ASR 9903 Router from the Shipping Container
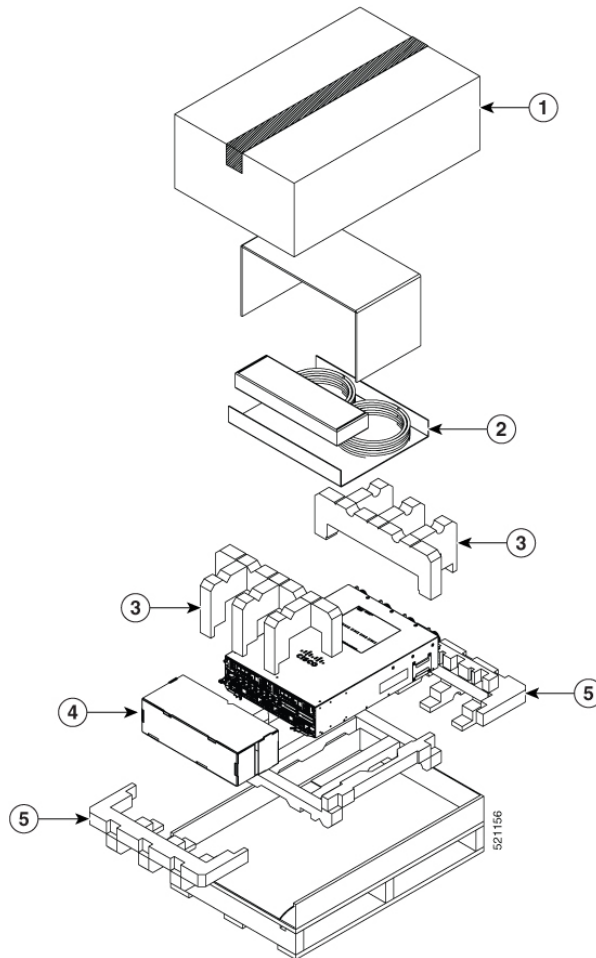
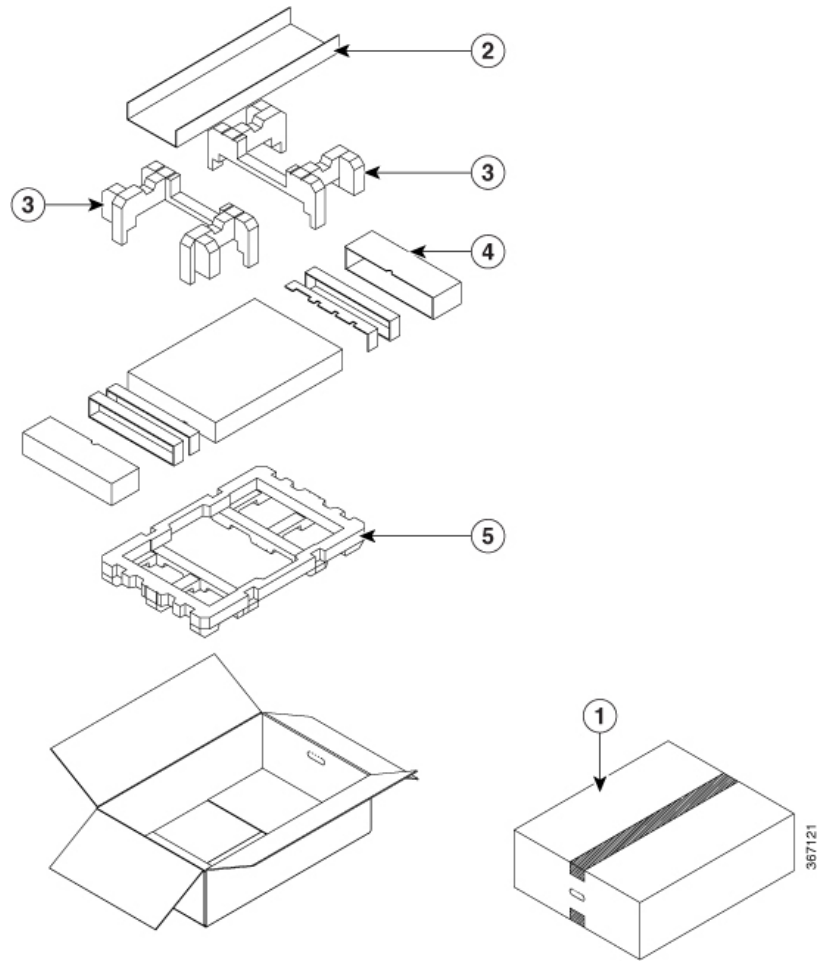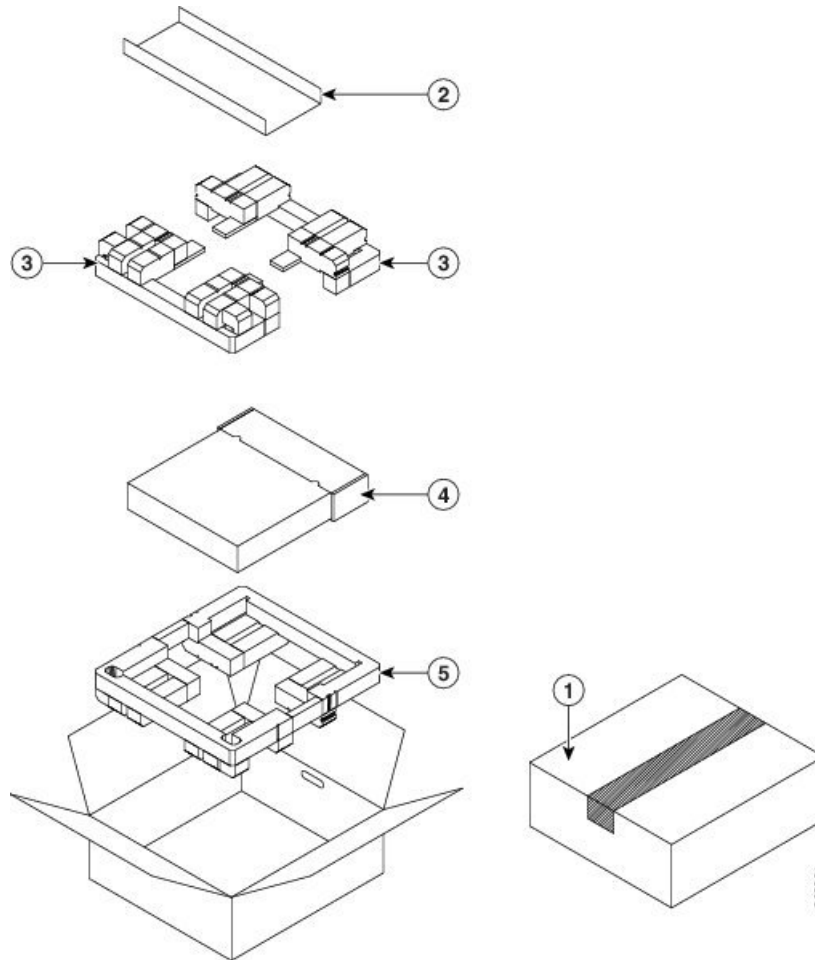*Figure 2: Unpacking the Cisco ASR 9901 Router from the Shipping Container*

Figure 3: Unpacking the Cisco ASR 9001 Router from the Shipping Container

1	Cardboard packaging container	4	Cardboard cap
2	Accessory tray	5	Foam packaging material - bottom cap
3	Foam packaging material- top caps		

Procedure

Step 1 Cut the packaging tape and open the cardboard shipping container.

Step 2 Remove the accessory box.

Step 3 Remove the packaging material (see the below figure).

    a) Remove the foam packaging material from the top of the router.

    b) Remove the cardboard cap from the side of the router.

Step 4 Save the packaging materials in case the router needs repackaging or shipping.

Positioning the Router

Use a safety hand truck to move the router to the location where the router is being installed in a rack.

Verifying Rack Dimensions

Before you install the chassis, measure the space between the vertical mounting flanges (rails) on your equipment rack to verify that the rack conforms to the measurements listed below.

Procedure

Step 1 Mark and measure the distance between two holes on the left and right mounting rails.

The distance should measure 18.31 inches ± 0.06 inches (46.5 cm ± 0.15 cm).

Note Measure the distance for pairs of holes near the bottom, middle and top of the equipment rack to ensure that the rack posts are parallel.

Step 2 Measure the space between the inner edges of the left front and right front mounting flanges on the equipment rack.

- **Cisco ASR 9903**—The space must be at least 17.75 inches (45.085 cm) to accommodate the width of the chassis with the mounting brackets and slide rails, and fits between the mounting posts on the rack.

- **Cisco ASR 9901**—The space must be at least 17.75 inches (45.085 cm) to accommodate the width of the chassis with the mounting brackets and slide rails, and fits between the mounting posts on the rack.

- **Cisco ASR 9001**—The space must be at least 17.7 inches (45 cm) to accommodate the chassis, which is approximately 17.45 in. (44.32 cm) wide, and fits between the mounting posts on the rack.

Installing the Cisco ASR 9902 and Cisco ASR 9903 Chassis

This section describes how to install:

- Cisco ASR 9902 and Cisco ASR 9903 chassis in a four-post rack.

- Cisco ASR 9902 chassis in a two-post rack.

Note Cisco ASR 9903 chassis doesn't support 2-post rack.

Installing the Cisco ASR 9902 and Cisco ASR 9903 Chassis in a 4-Post Rack

To install the chassis in a four-post open rack, follow these steps:

Before you begin

Before you install the chassis, ensure that you have the following tools and equipment:

- ESD-preventive wrist strap

- Number 1 and number 2 Phillips screw drivers

- 1/4 inch (6.35 mm) and 3/16 inch (4.5 mm) flat-blade screwdrivers

- Rack-mounting kits (provided by Cisco) - Cisco PID ASR-9903-4P-KIT for mounting the chassis in a 19 inch (482.6 mm) four-post rack

- Rack-mounting kits (provided by Cisco) - Cisco PID ASR-9902-4P-KIT for mounting the chassis in a 19 inch (482.6 mm) four-post rack

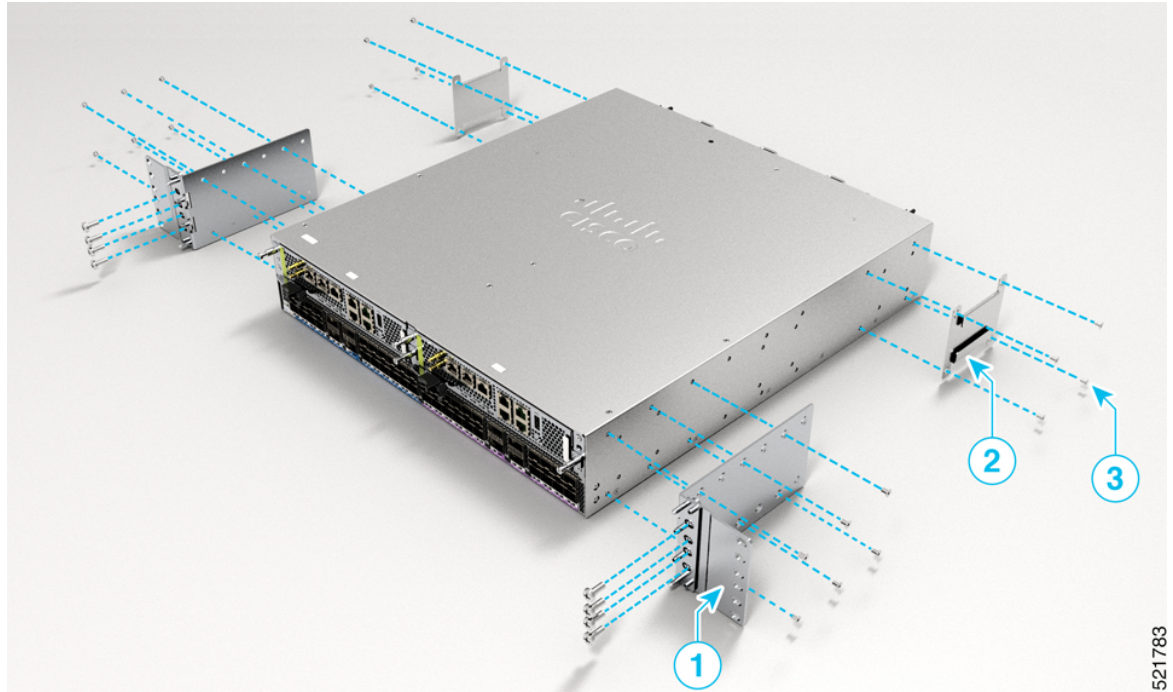- Tape measure

- Level (optional)

Procedure

Step 1 Attach the mounting brackets of the front rack to the either sides of the chassis using six M4 flat-head screws each side.

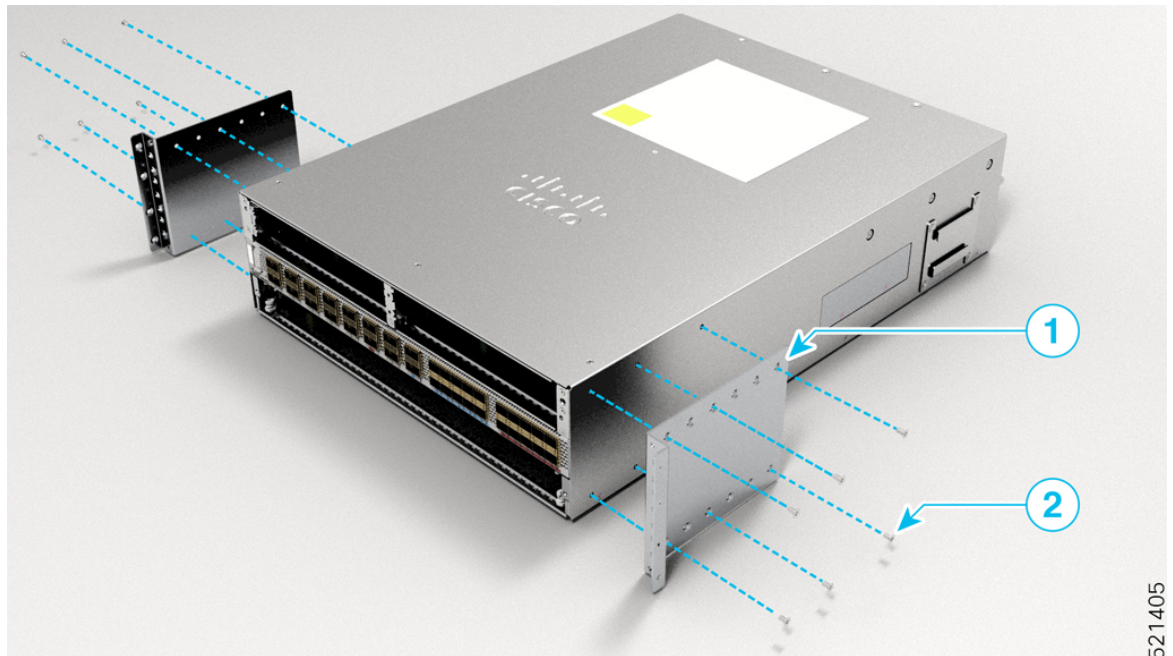*Figure 4: Cisco ASR 9902: Attach the 19 inch 4-post Mounting Brackets to the Sides of the Chassis*
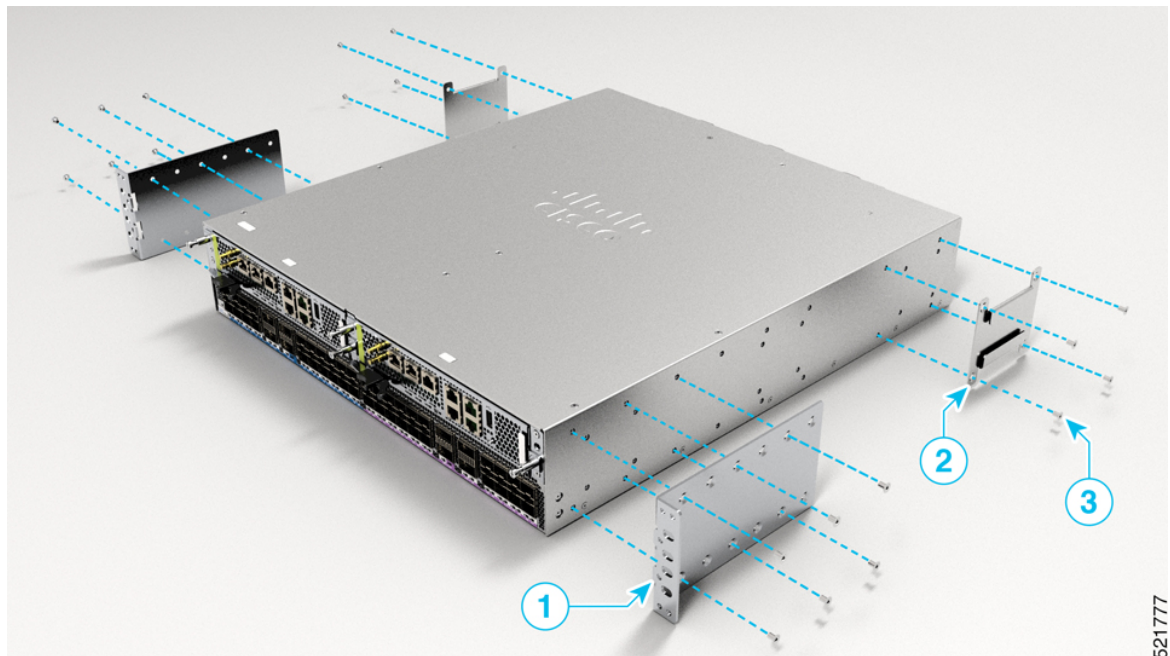
Figure 5: Cisco ASR 9902: Attach the 23 inch 4-post Mounting Brackets to the Sides of the Chassis

1	Front mounting bracket	3	M4 screws
2	Rear mounting bracket		

Figure 6: Cisco ASR 9903: Attach the Brackets to the Sides of the Chassis

1	Mounting bracket	2	M4 screws

Step 2   Attach the right and left slider rails to rear of the rack using rack mount screws. The recommended maximum torque is 31 in-lbs (3.5 N-m).

Figure 7: Attach the Slide Rail Assembly
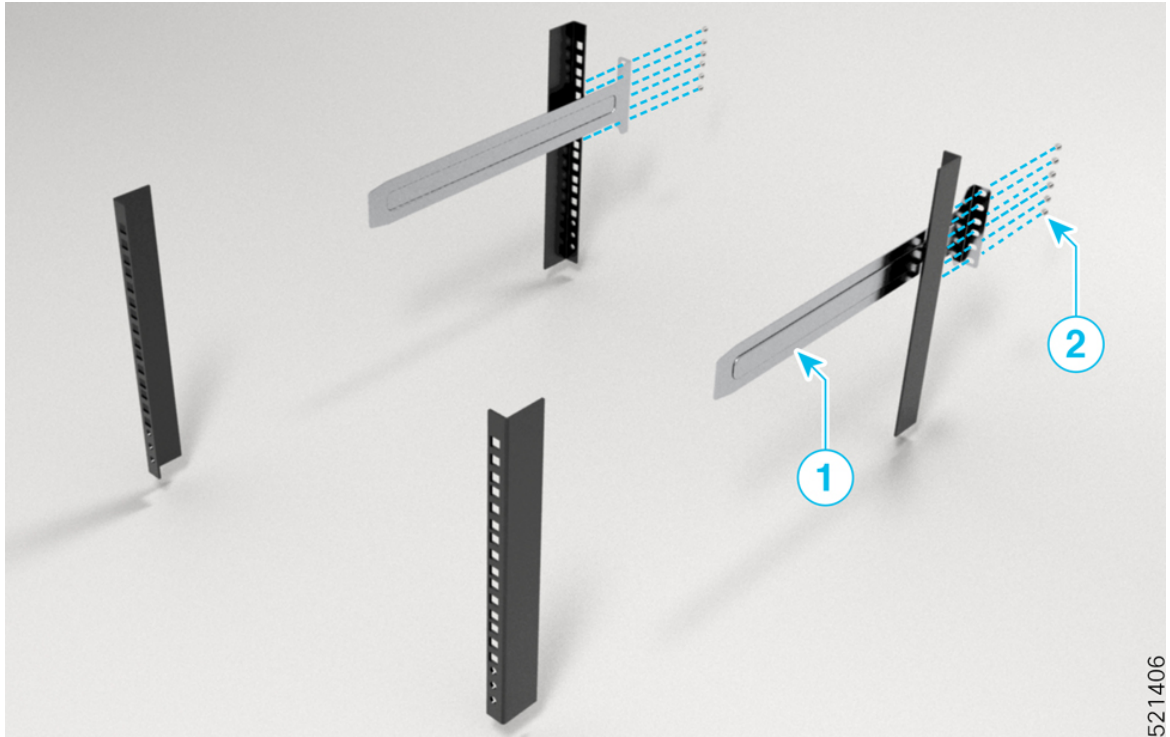
1	Rear mounting bracket	2	M4 screws

Step 3   Use two persons to lift the chassis into the rack holding the top and bottom of the chassis.

Step 4   Position the chassis so that the mounting brackets on the sides of the chassis align with the slide rail assemblies.

Step 5   Slide the chassis into the rack until the rack-mounting flanges are flush against the mounting rails on the rack.
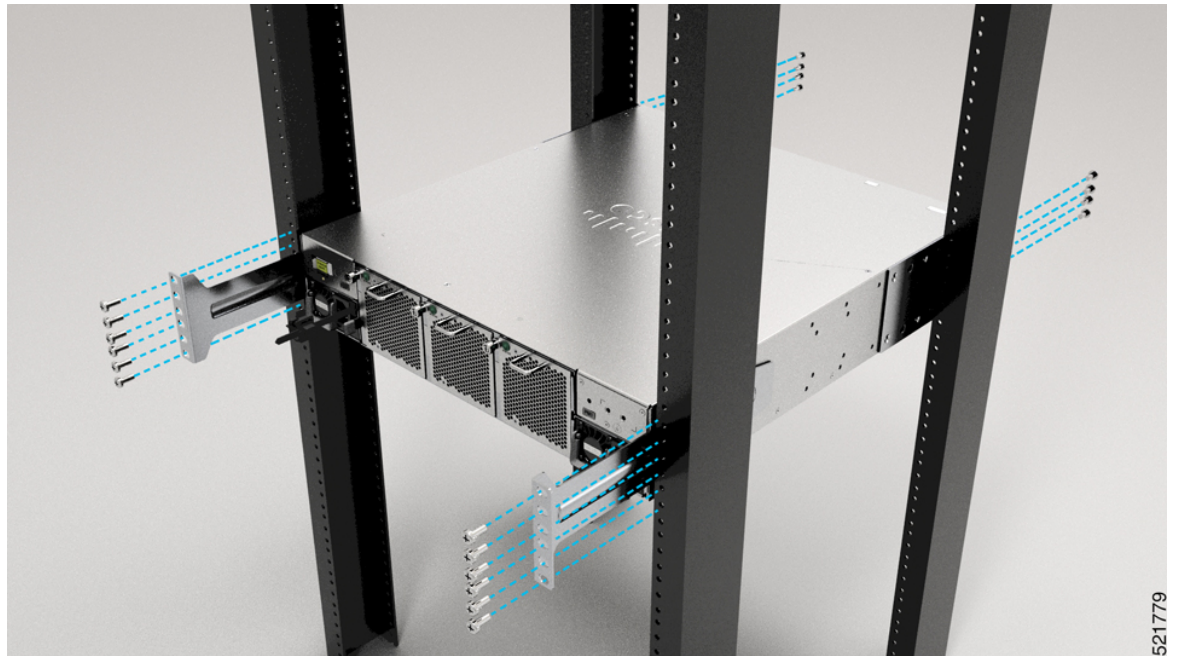
Step 6   Hold the chassis in position against the mounting rails while a second person finger-tightens the screws to the rack rails on each side of the chassis. See figure below.

Figure 8: Cisco ASR 9902: Tighten the Screws to the Rack Rails (19 inch 4-post Rack)- Front View
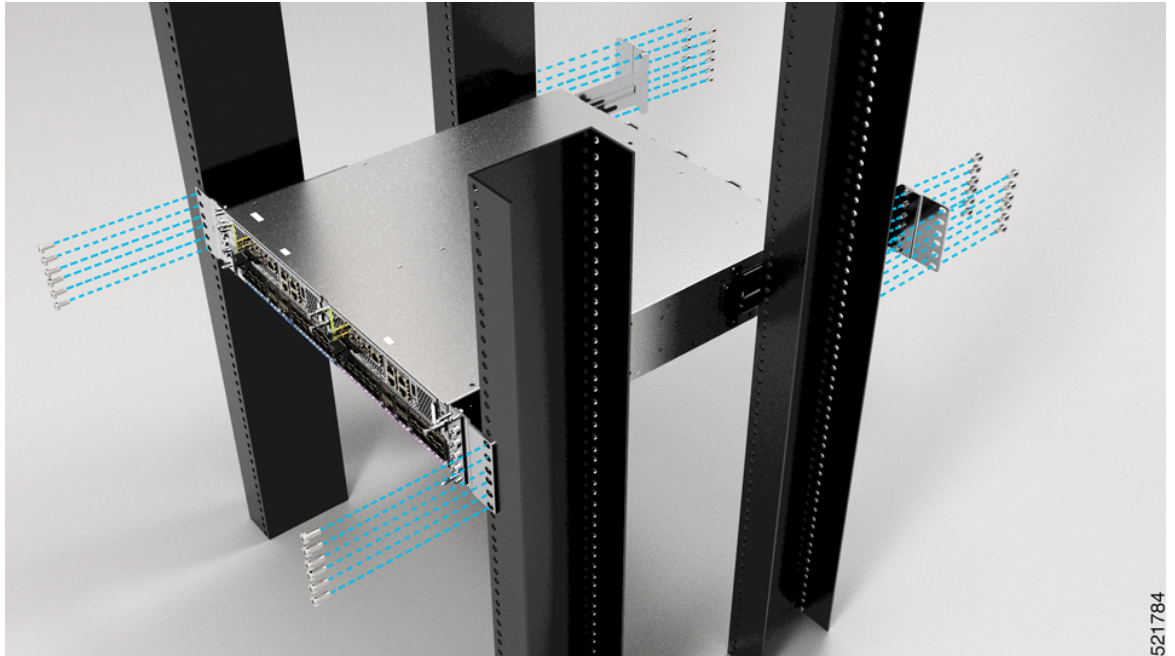

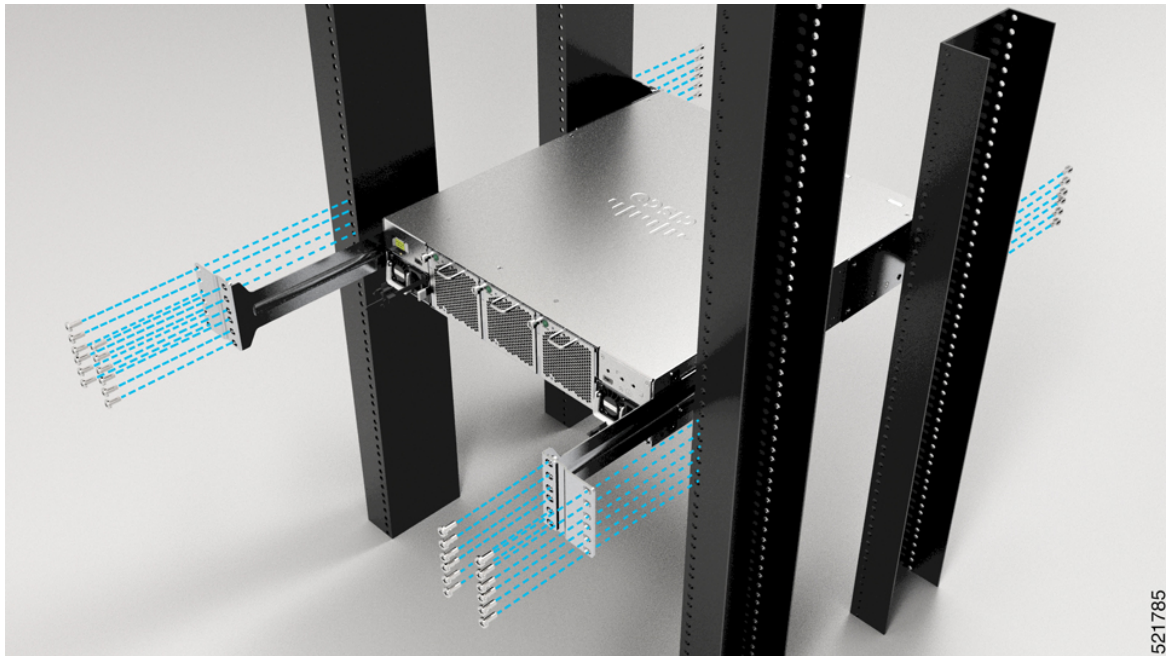*Figure 9: Cisco ASR 9902: Tighten the Screws to the Rack Rails (19 inch 4-post Rack)- Rear View*

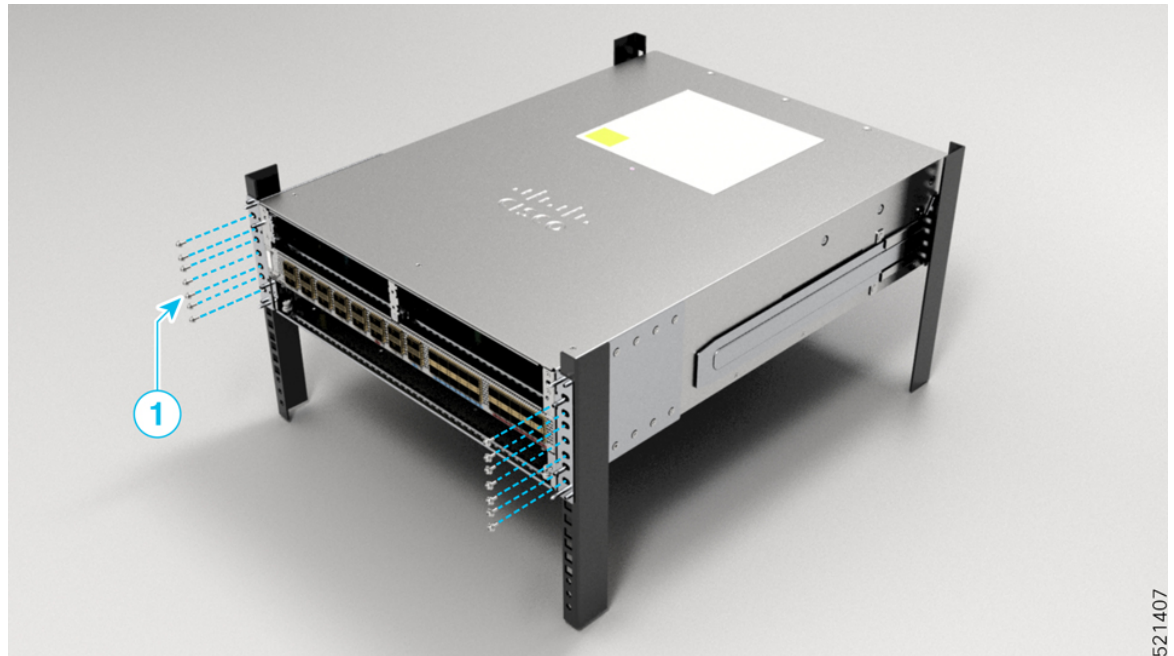Figure 10: Cisco ASR 9902: Tighten the Screws to the Rack Rails (23 inch 4-post Rack)- Front View

Figure 11: Cisco ASR 9902: Tighten the Screws to the Rack Rails (23 inch 4-post Rack)- Rear View

Figure 12: Cisco ASR 9903: Tighten the Screws to the Rack Rails

1	Screws on each side to attach the chassis to the rack

Step 7   Tighten all screws fully to secure the chassis to the rackrails. The recommended maximum torque is 31 in-lbs (3.5 N-m).

Installing the Cisco ASR 9902 Chassis in a 2-Post Rack

To install the chassis in a two-post rack, follow these steps:

Before you begin

Before you install the chassis, ensure that you have the following tools and equipment:

- ESD-preventive wrist strap

- Number 1 and number 2 Phillips screw drivers

- 1/4 inch (6.35 mm) and 3/16 inch (4.5 mm) flat-blade screwdrivers

- Rack-mounting kits (provided by Cisco) - ASR-9902-2P-KIT for mounting the chassis in a 19 inch and 23 inch two-post rack

- Tape measure

- Level (optional)

Procedure

Step 1   Attach the mounting brackets to the sides of the chassis using twelve M4 flat-head screws per side. The recommended maximum torque is 13.28 in.-lb (1.5 N-m).

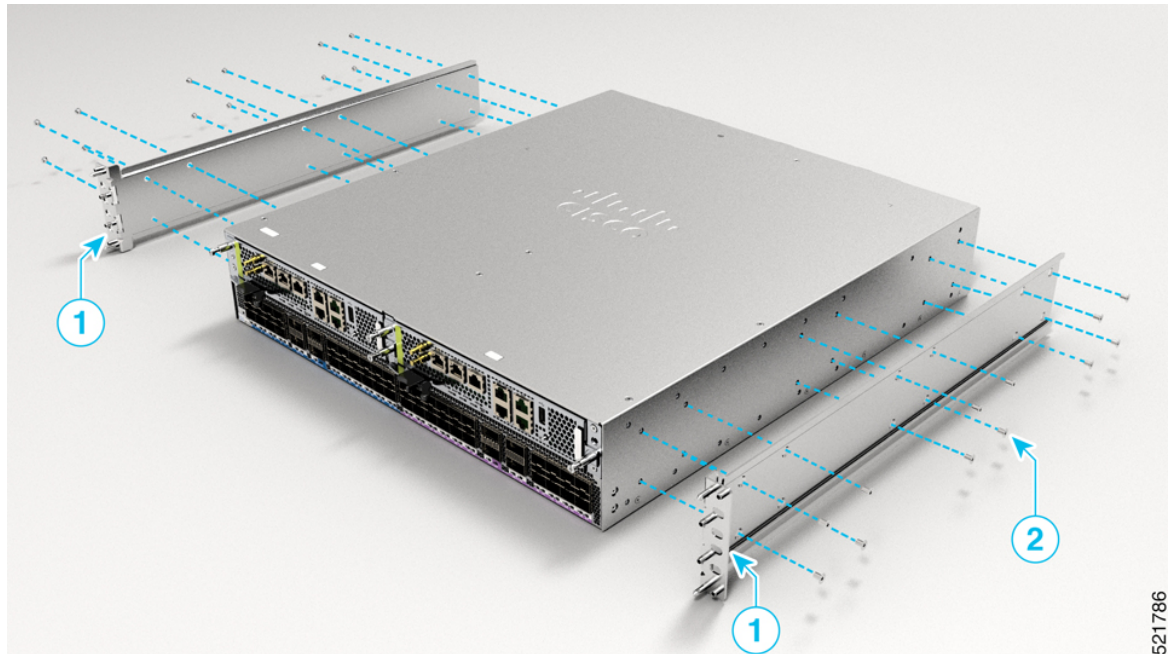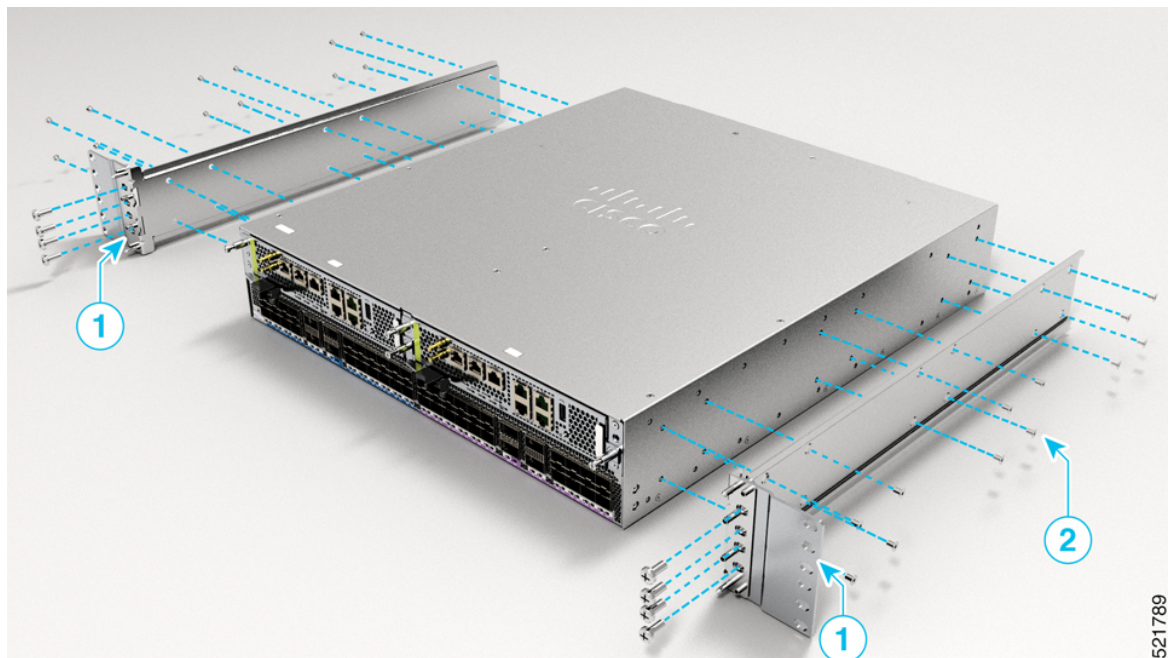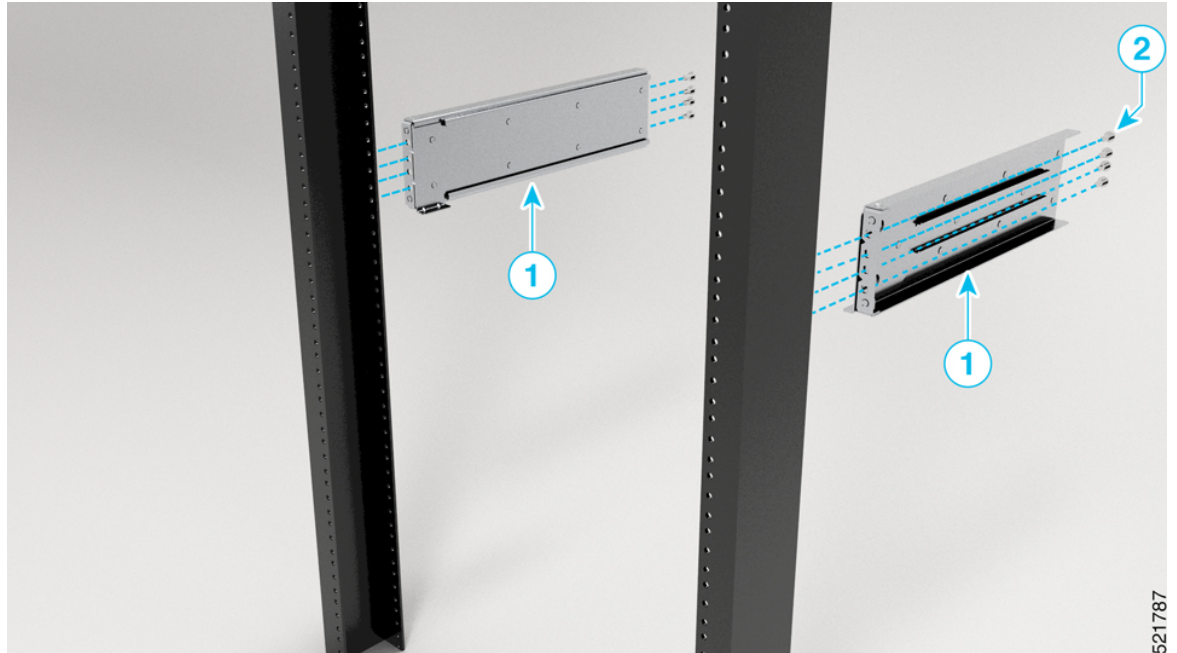*Figure 13: Cisco ASR 9902: Attach 19 inch 2-post Rack Mounting Brackets*

*Figure 14: Cisco ASR 9902: Attach 23 inch 2-post Rack Mounting Brackets*

Step 2   Attach the left and right slide rail assemblies to the back of the 2-post rack using four M5 pan head screws per side. The recommended maximum torque is 31 in.-lb (3.5 N-m).

Figure 15: Cisco ASR 9902: Attach Slide Rail Assemblies on 19 inch 2-post Rack

To install the router in a 23-inch rack, attach extension plates to the front and back of the 2-post rack using six M5 pan head screws each. Use a level to make sure the plates are level. Attach the left and right slide rail assemblies to the extension plates on back of the 2-post rack using four M5 pan head screws per side. The recommended maximum torque is 31 in.-lb (3.5 N-m).

Figure 16: Cisco ASR 9902: Attach Slide Rail Assemblies on 23 inch 2-post Rack
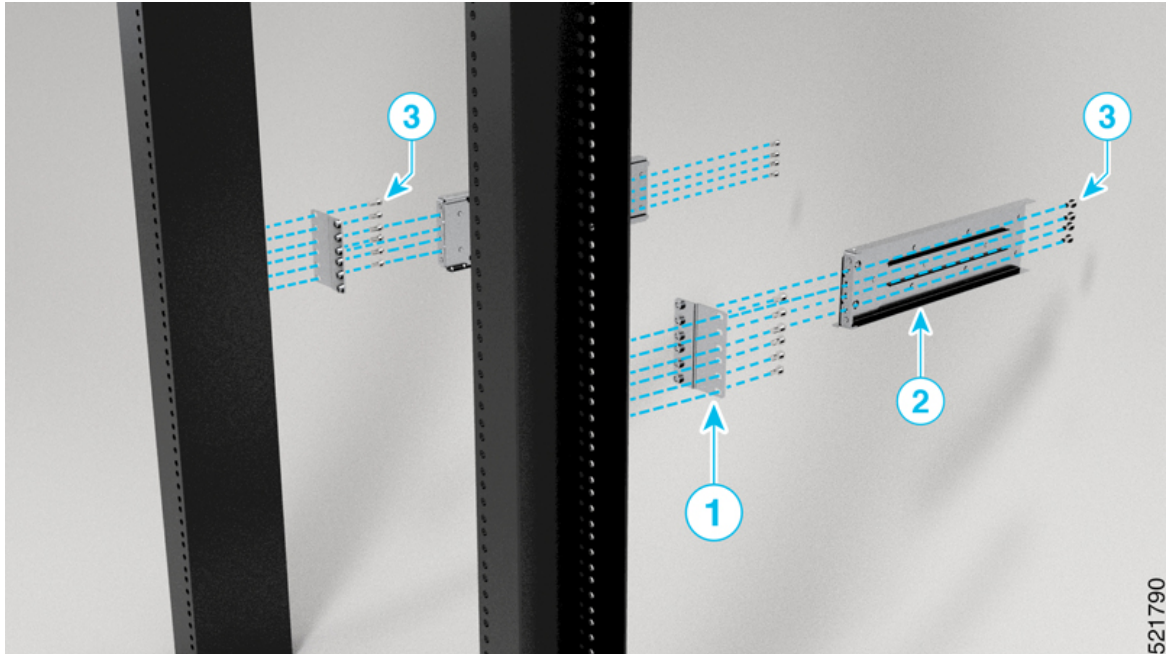
Step 3   Use two persons to lift the chassis into the rack holding the top and bottom of the chassis.

Step 4   Position the chassis so that the mounting brackets on the sides of the chassis align with the slide rail assemblies.

Step 5   Slide the chassis into the rack until the rack-mounting flanges are flush against the mounting rails on the rack.

Step 6   Hold the chassis in position against the mounting rails while the second person finger-tightens four screws to the rack rails on each side of the chassis (see the figure below).

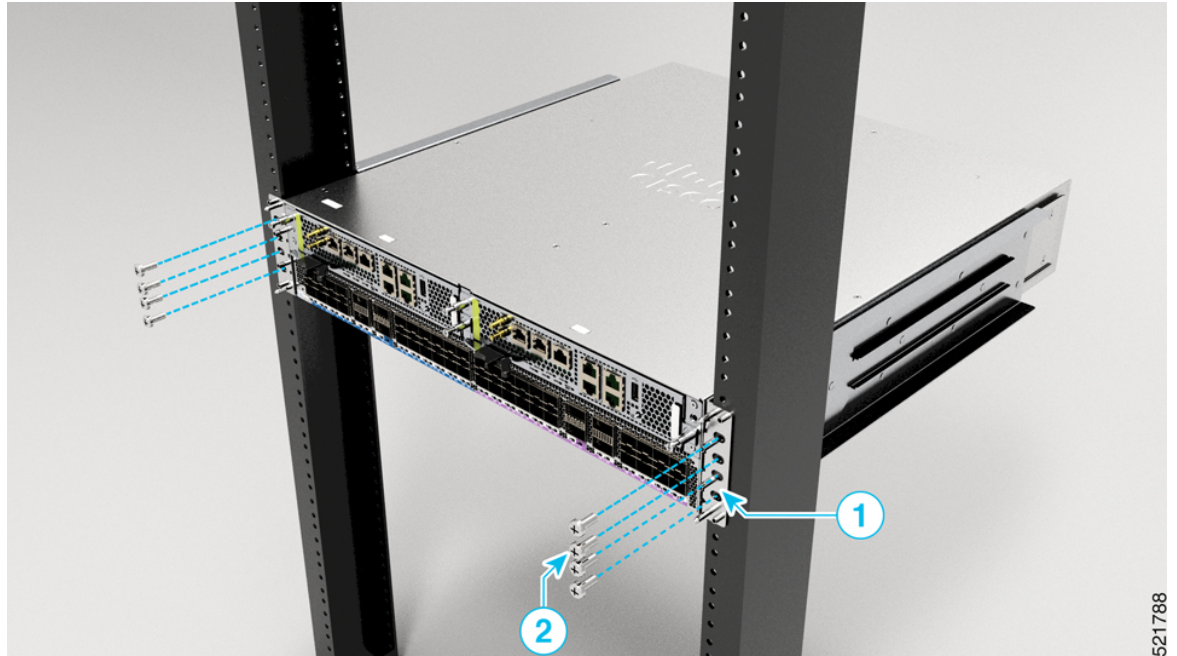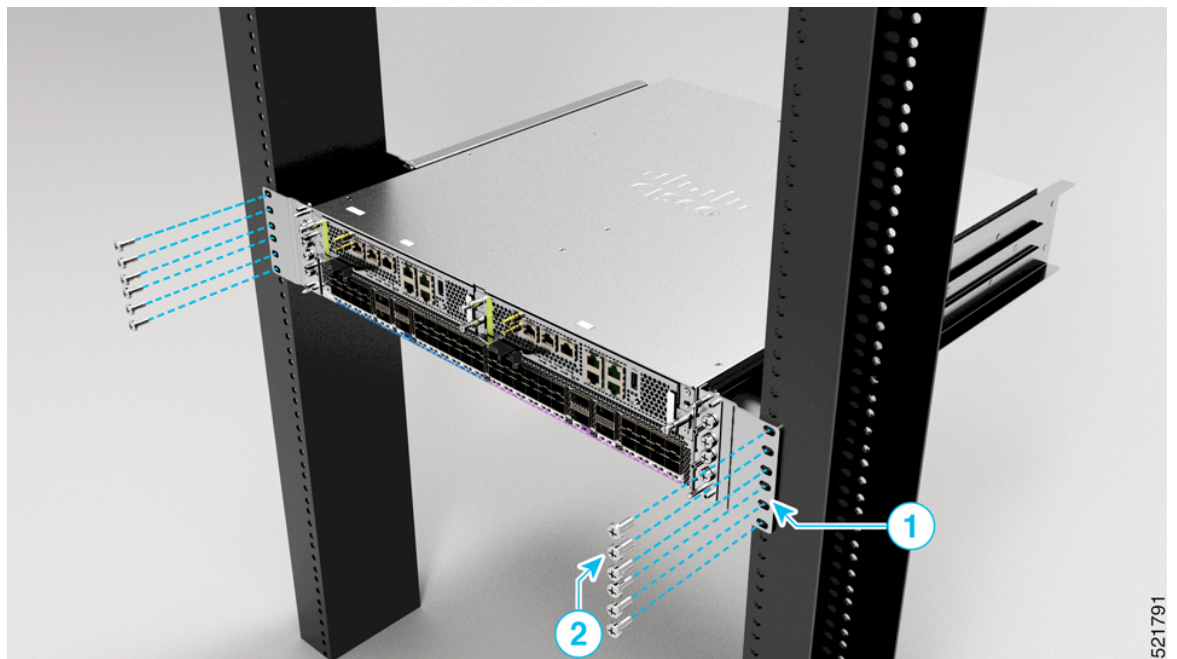*Figure 17: Cisco ASR 9902: Secure the Chassis on a 19 inch 2-post Rack*

Figure 18: Cisco ASR 9902: Secure the Chassis on a 23 inch 2-post Rack

Step 7   Fully tighten all the screws to secure the chassis to the rack rails.

Stacking Cisco ASR 9902 Chassis

While stacking multiple Cisco ASR 9902 chassis in a rack, it is recommended to start at the bottom. Install the first chassis of the stack at the bottom and move upwards.

Figure 19: Stacking Multiple Cisco ASR 9902 Chassis

Installing the Cisco ASR 9901 Chassis

This section describes how to install a Cisco ASR 9901 chassis in a rack.

Before you Begin

Before you install the chassis, make sure that you have following tools and equipment:

- ESD-preventive wrist strap
- Number 1 and number 2 Phillips screwdrivers
- 1/4-inch (6.35-mm) and 3/16-inch (4.5-mm) flat-blade screwdrivers
- Tape measure
- Level (optional)
- One of the following rack-mounting kits for ASR 9901 (provided by Cisco):
  - ASR-9901-2P-KIT for mounting the chassis in a 19-inch or 23-inch two-post rack.
  - ASR-9901-4P-KIT for mounting the chassis in a 19-inch or 23-inch four-post rack.

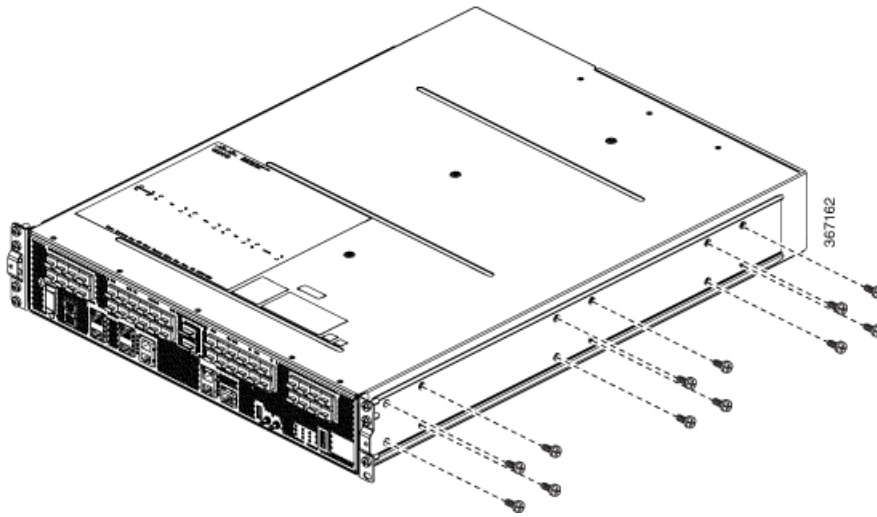## Installing the Chassis in a Two-Post Rack

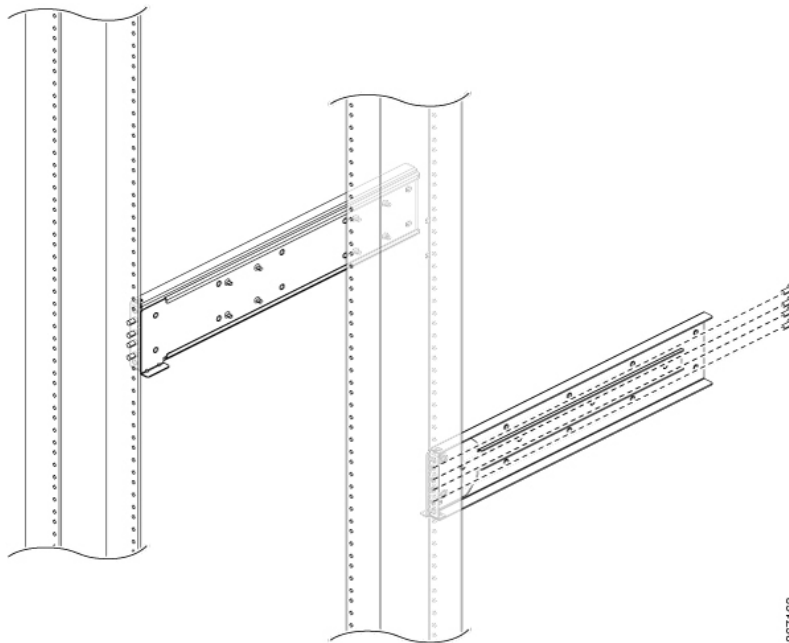To install the chassis in a two-post rack, follow these steps:

Before you begin

Before you install the chassis in the rack, make sure that you have the necessary tools and equipment (see Before you Begin, on page 17).
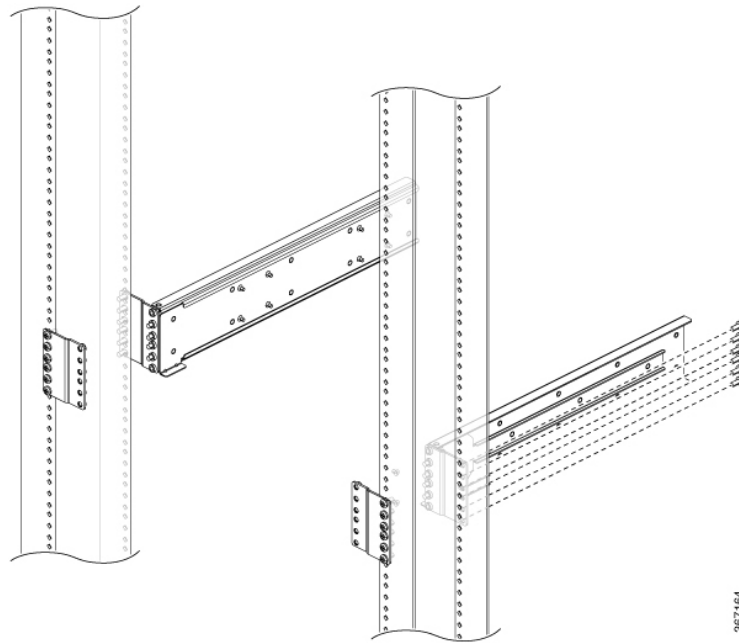
Procedure

Step 1 Attach the mounting brackets to the sides of the chassis using twelve M4 flat-head screws per side. The recommended maximum torque is 15 in.-lb (1.7 N-m).

Step 2   Attach the left and right slide rail assemblies to the back of the 2-post rack using four M5 pan head screws per side. The recommended maximum torque is 31 in.-lb (3.5 N-m).

**Note**   If you are installing the router in a 23-inch rack, attach extension plates to the front and back of the 2-post rack using six M5 pan head screws each. Use a level to make sure the plates are level. Attach the left and right slide rail assemblies to the extension plates on back of the 2-post rack using four M5 pan head screws per side. The recommended maximum torque is 31 in.-lb (3.5 N-m).

Step 3   Use two persons to lift the chassis into the rack holding the top and bottom of the chassis.

Figure 20: Correct Lifting Positions
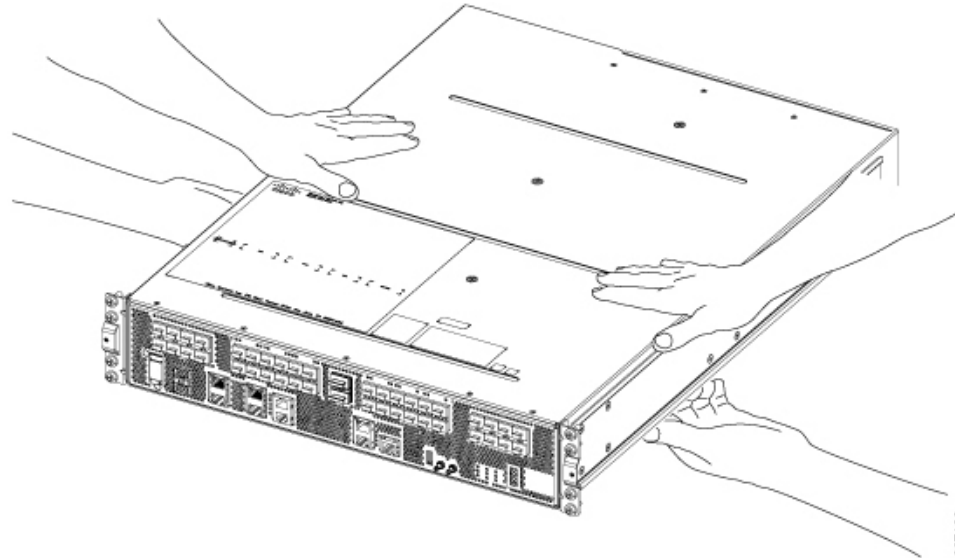
Step 4   Position the chassis so that the mounting brackets on the sides of the chassis align with the slide rail assemblies.

Step 5   Slide the chassis into the rack until the rack-mounting flanges are flush against the mounting rails on the rack.

Step 6   Hold the chassis in position against the mounting rails while the second person finger-tightens four screws to the rack rails on each side of the chassis (see the figure below).
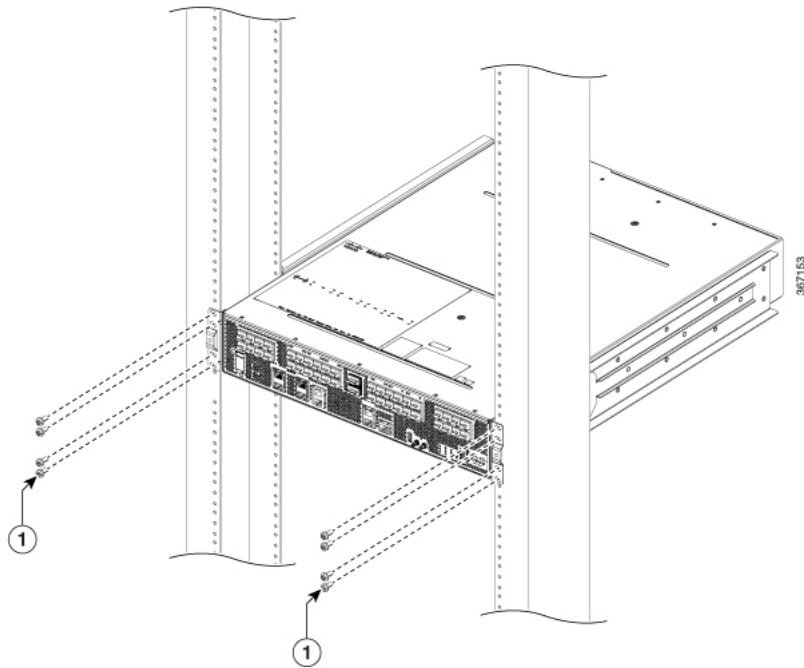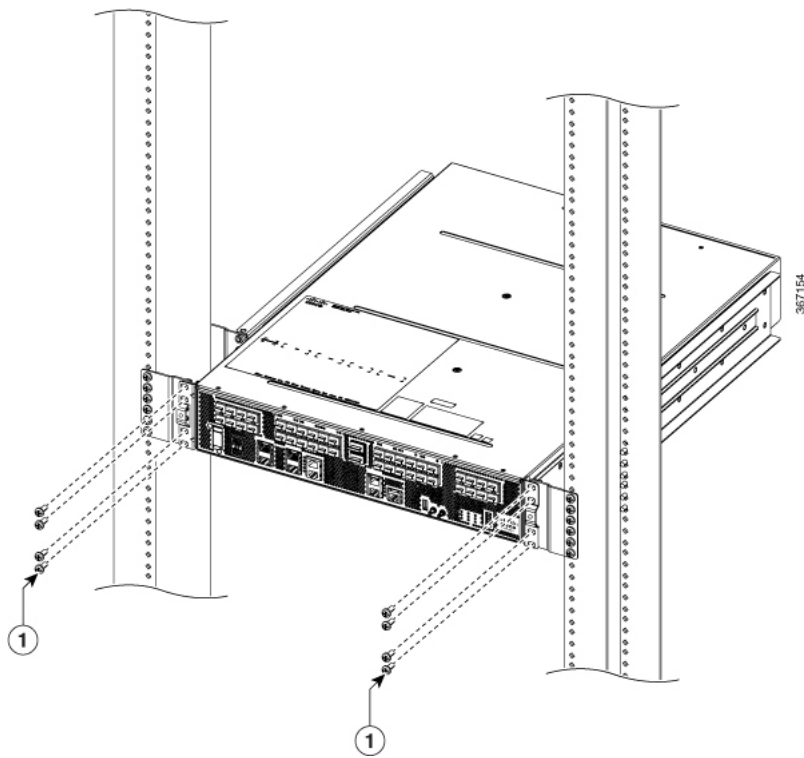
Figure 21: 19-Inch Two-Post Rack

Figure 22: 23-Inch Two-Post Rack

1	Four screws on each side to attach the chassis to the rack

Step 7   Fully tighten all the screws to secure the chassis to the rack rails.

Installing the Chassis in a Four-Post Rack

To install the chassis in a four-post open rack, follow these steps:

Before you begin

Before you install the chassis in the rack, make sure that you have the necessary tools and equipment (see Before you Begin, on page 17).

Procedure

Step 1   Attach the mounting brackets to the sides of the chassis using twelve M4 flat-head screws per side. The recommended maximum torque is 15 in.-lb (1.7 N-m).
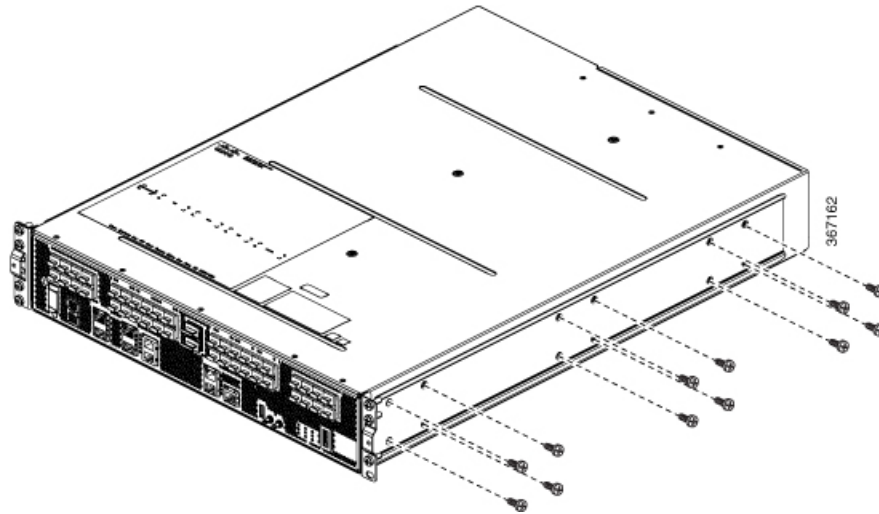
Step 2   Attach the right slide rail assembly to the right side of the rack. Use two M5 pan head screws in the center holes of the front bracket and four M5 pan head screws for the rear bracket. Repeat for the left slide rail assembly. The recommended maximum torque is 31 in.-lb (3.5 N-m).
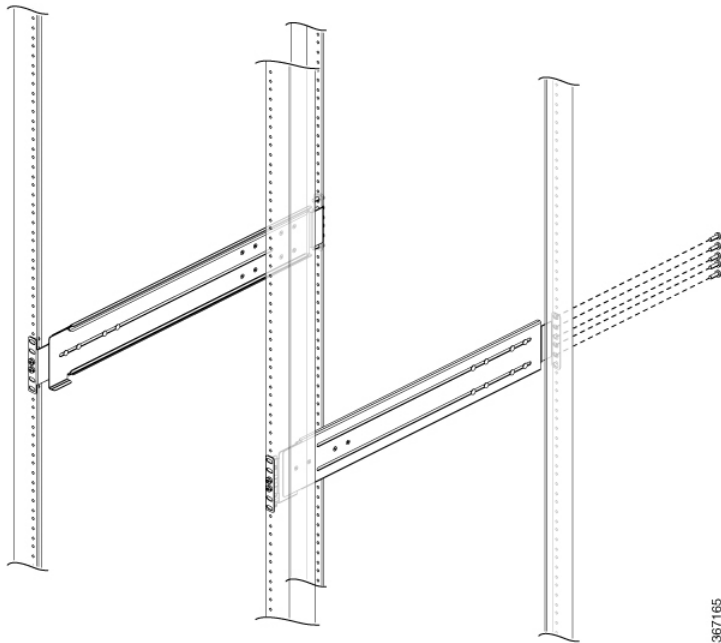
Note   If you are installing the router in a 23-inch rack, attach extension plates to each post of the rack using six M5 pan head screws per plate. Use a level to make sure the plates are level. Attach the left and right slide rail assemblies to the extension plates on each post using two M5 pan head screws in the center holes of the front bracket and four M5 pan head screws for the rear bracket. The recommended maximum torque is 31 in.-lb (3.5 N-m).
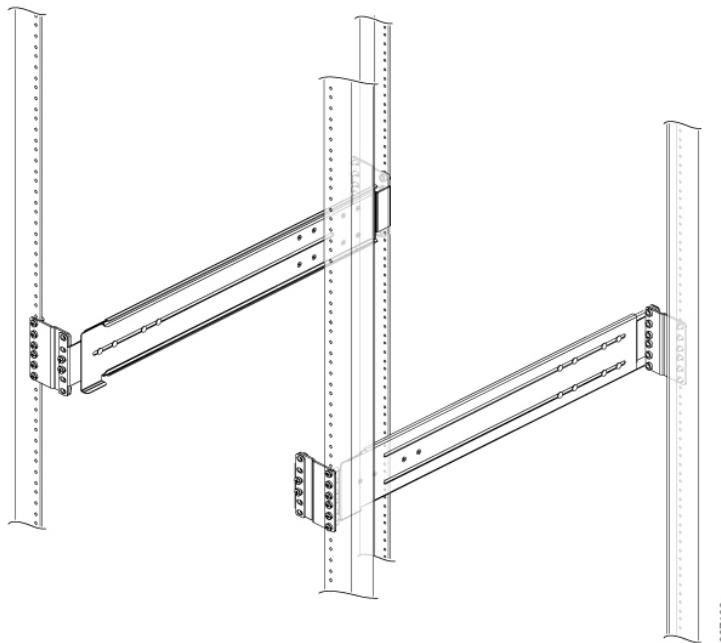
Step 3   Use two persons to lift the chassis into the rack holding the top and bottom of the chassis (see the figure below).

Figure 23: Correct Lifting Positions
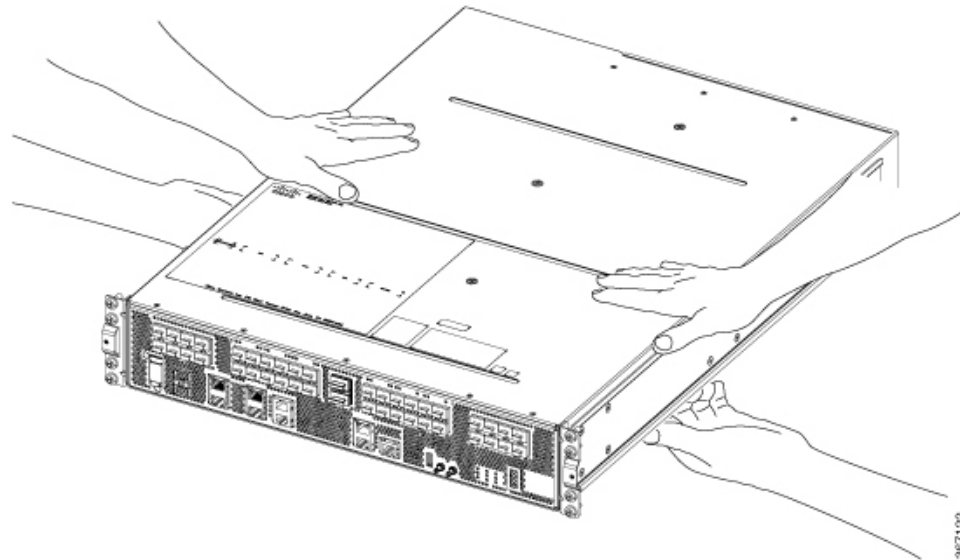
Step 4   Position the chassis so that the mounting brackets on the sides of the chassis align with the slide rail assemblies.

Step 5   Slide the chassis into the rack until the rack-mounting flanges are flush against the mounting rails on the rack.

Step 6   Hold the chassis in position against the mounting rails while the second person finger-tightens four screws to the rack rails on each side of the chassis (see the figure below).
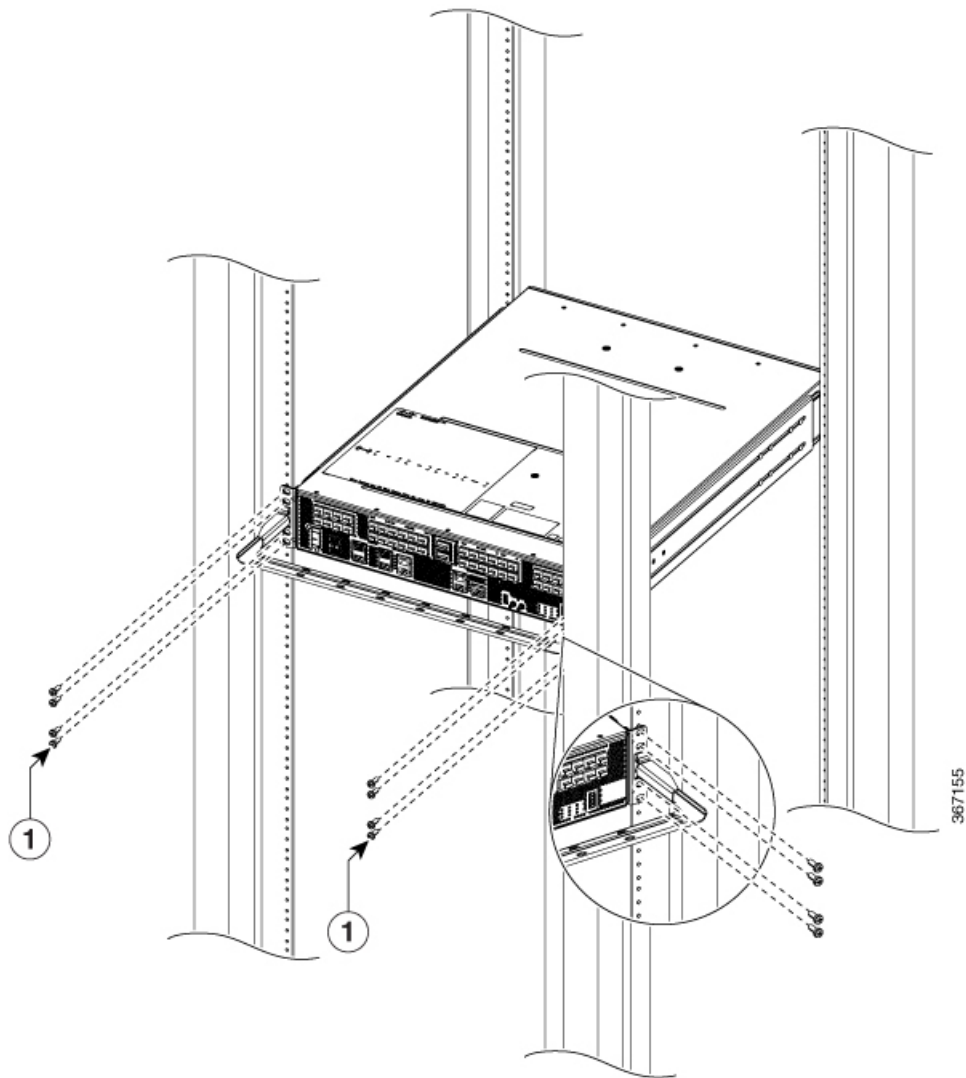
Figure 24: 19-Inch Four-Post Rack

Figure 25: 23-Inch Four-Post Rack
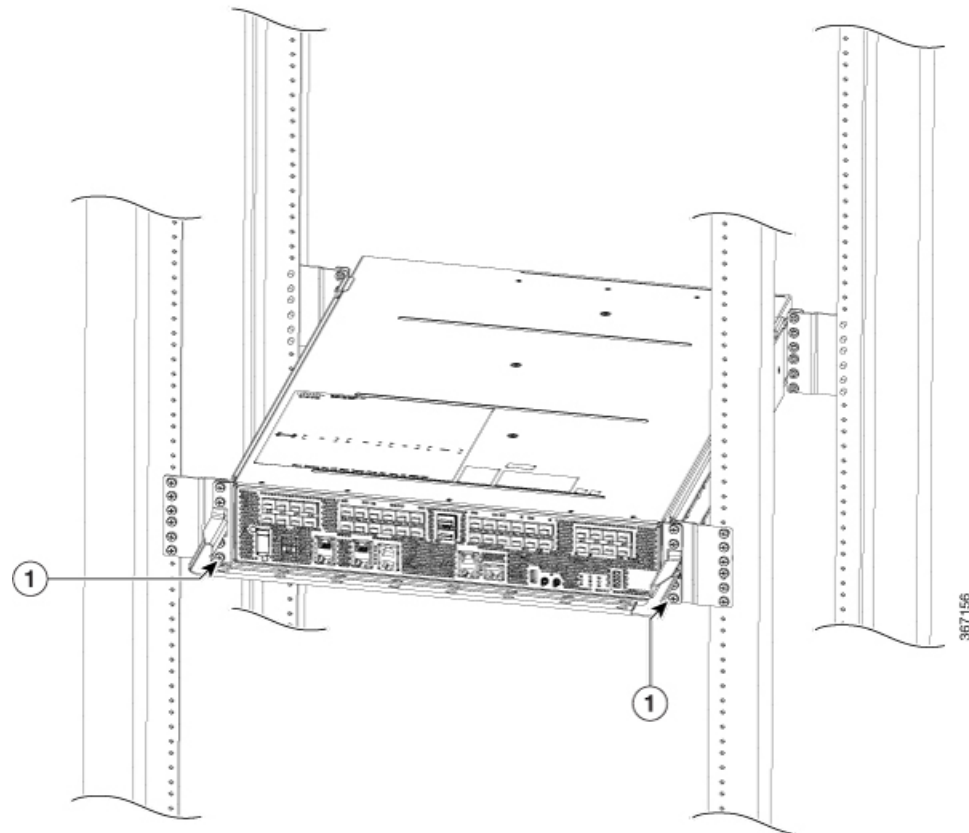
1	Four screws on each side to attach the chassis to the rack

Step 7   Fully tighten all the screws to secure the chassis to the rack rails.

Installing the Cisco ASR 9001 Chassis

This chapter describes how to install a Cisco ASR 9001 chassis in a rack. It includes the following sections:

Before you Begin

Before you install the chassis, make sure that you have following tools and equipment:

- ESD-preventive wrist strap
- Number 1 and number 2 Phillips screwdrivers
- 1/4-inch (6.35-mm) and 3/16-inch (4.5-mm) flat-blade screwdrivers
- Tape measure
- Level (optional)

- Minimum of six binderhead screws (usually provided with the rack) to secure the chassis to the mounting flanges (also called *rails*) in the rack. Three screws should be installed on each side of the chassis.
- One of the following rack-mounting kits (provided by Cisco):

    - Cisco PID ASR-9001-2P-KIT= for mounting the chassis in a 19-inch two-post rack.
    - Cisco PID ASR-9001-2PL-KIT= for mounting the chassis in a 23-inch two-post rack.

Note   Two rack-mounting kits are needed for four-post rack installations.

- (Optional) Cisco ASR 9001 Air Plenum Assembly Kit (Cisco PID ASR-9001-PLENUM=)

Rack-Mounting the Chassis

The chassis is installed in a front-mounted position, as shown in Figure 7. In a front-mounted position, the chassis rack-mounting flanges are secured directly to the rack posts.

Note   Before you install the chassis in a rack, read the information in Rack-Mounting and Air Flow Clearance Guidelines.

Installing the Chassis in a Two-Post Rack

Before you install the chassis in the rack, make sure that you have the necessary tools and equipment (see Before you Begin, on page 25).

Note   Six mounting bracket screws (three per side) are provided to attach the chassis to the rack. If the bracket holes do not line up with the rack rails, make sure that you attach a minimum of four screws (two screws per bracket) on each side.

To install the chassis in a two-post rack, follow these steps:

Procedure

Step 1   Attach the mounting flanges to the chassis by using the Cisco-supplied screws.

   To accommodate racks with different hole patterns in their mounting flanges, the chassis rack-mounting flanges have three oblong screw holes on each side.

Step 2   Use two persons to lift the chassis into the rack holding the top and bottom of the chassis (see the figure below).

Figure 26: Correct Lifting Positions

Caution   Do not grasp air inlet or exhaust when lifting the router chassis.

Step 3   Position the chassis until the rack-mounting flanges are flush against the mounting rails on the rack.

Step 4   Hold the chassis in position against the mounting rails while the second person finger-tightens a screw to the rack rails on each side of the chassis.
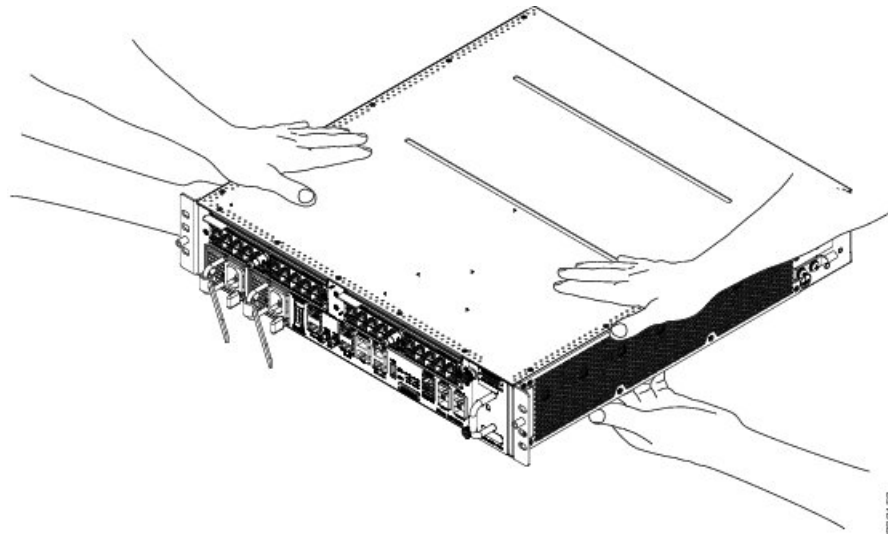
Step 5   Finger-tighten two more screws to the rack rails on each side of the chassis. Space the screws evenly between the top and bottom of the chassis (see the figure below).

Step 6   Fully tighten all the screws on the chassis mounting flanges and bracket flanges (each side) to secure the chassis to the rack rails.

What to do next

Figure 27: Installing the Cisco ASR 9001 Chassis in a Two-Post Rack
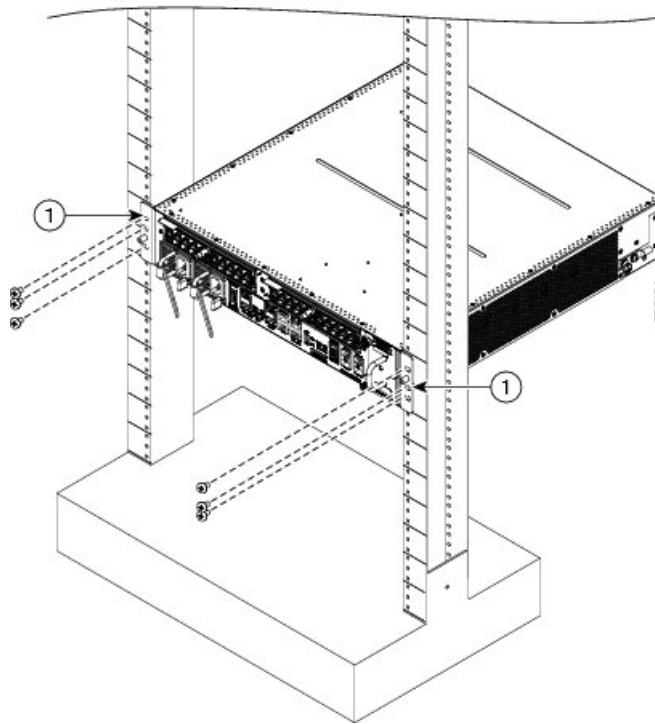
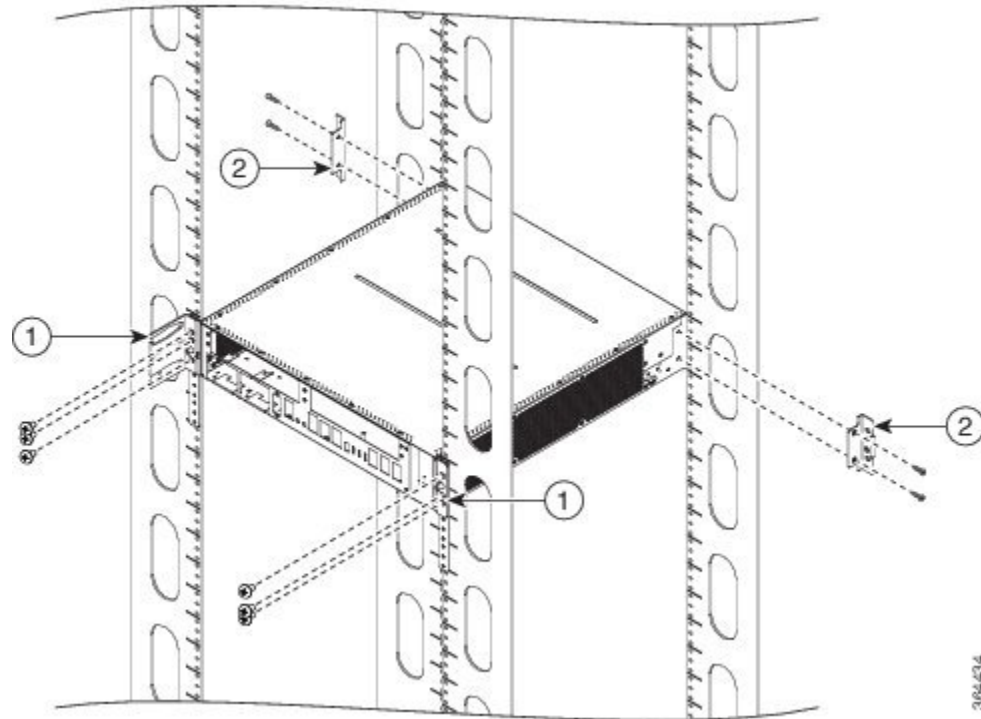| 1 | Three screws on each side (minimum two) to attach the chassis to the rack |

Installing the Chassis in a Four-Post Rack

If you are installing the chassis without air plenum kit, you will need two side mounting brackets used to attach the chassis to the rear posts as shown in the figure below. See Before you Begin, on page 25 for mounting bracket information.

To install the chassis in a four-post open rack, follow these steps:

Procedure

Step 1 Follow the steps in Installing the Chassis in a Two-Post Rack, on page 26 to secure the chassis to the front rack posts.

Step 2 For rear mounting, align each rear mounting bracket (see the figure below) with the screw holes on the chassis and the mounting holes in the rear rack posts.

Step 3 Fully tighten both screws to the chassis on each side to secure the chassis to the rear posts.

What to do next

Figure 28: Installing the Cisco ASR 9001 Router Chassis in a Four-Post Rack

1	Three screws on each side (minimum two) to attach the chassis to the rack.	2	Two rear mounting brackets on each side to attach the chassis to the rear rack posts.

Supplemental Bonding and Grounding Connections

Before you power on the router for the first time, we recommend that you connect the central office ground system or Network Equipment Building System (NEBS) to the threaded supplemental bonding and grounding receptacles on the router. For more information on supplemental bonding and grounding cable requirements, see NEBS Supplemental Unit Bonding and Grounding Guidelines.

Use this procedure to attach a grounding cable lug to the router:

Procedure

Step 1 Insert the grounding screws through the locking washers, and into the threaded grounding receptacle on the chassis as shown in the following figures.

Note For Cisco ASR 9902 router, the grounding lug is shipped with the chassis in the shipping container, it will not be mounted in the chassis.
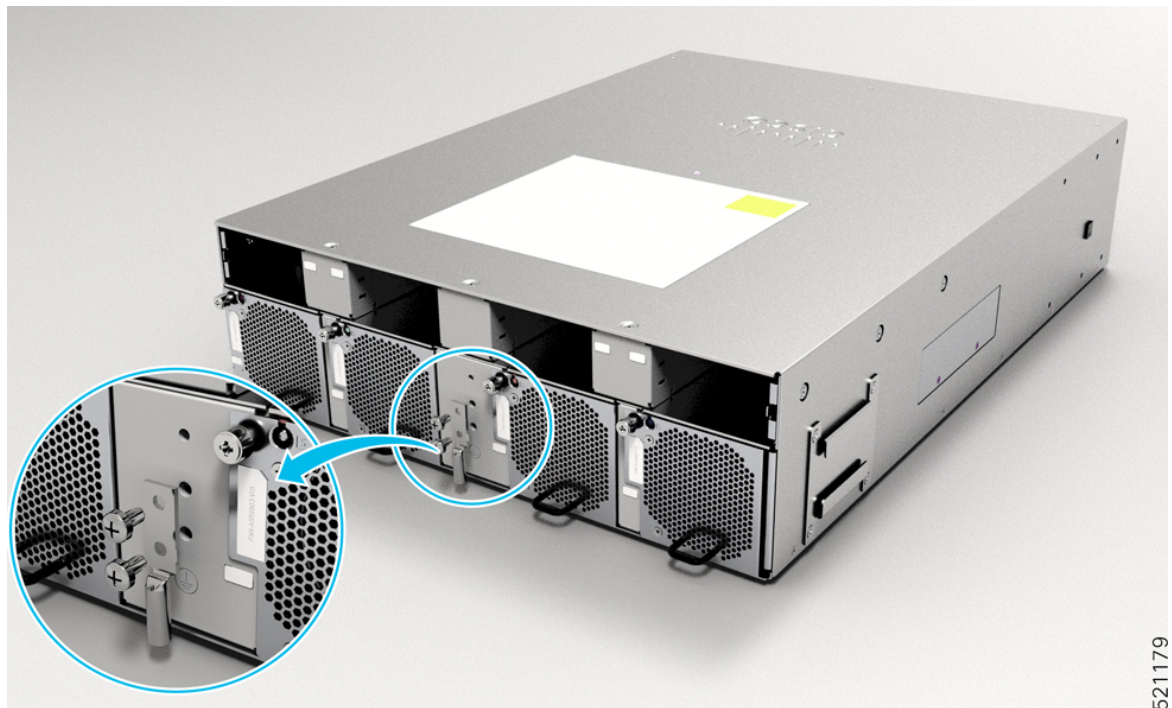
Figure 29: NEBS Bonding and Grounding for the Cisco ASR 9902 Router
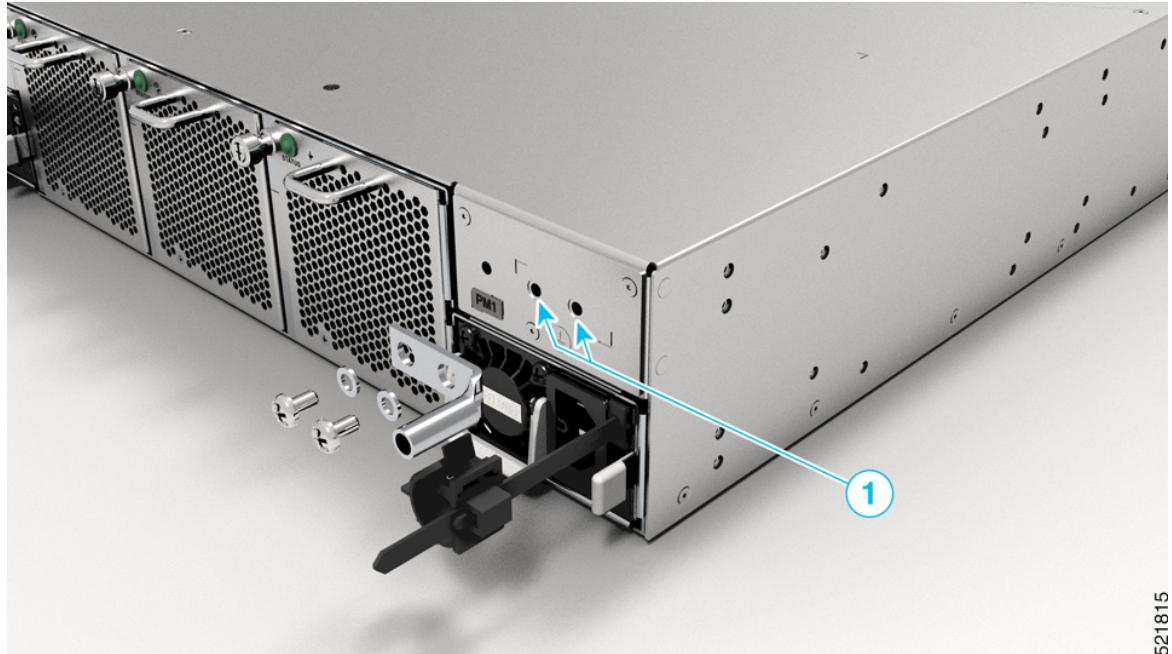
1	Grounding points

Figure 30: NEBS Bonding and Grounding for the Cisco ASR 9903 Router

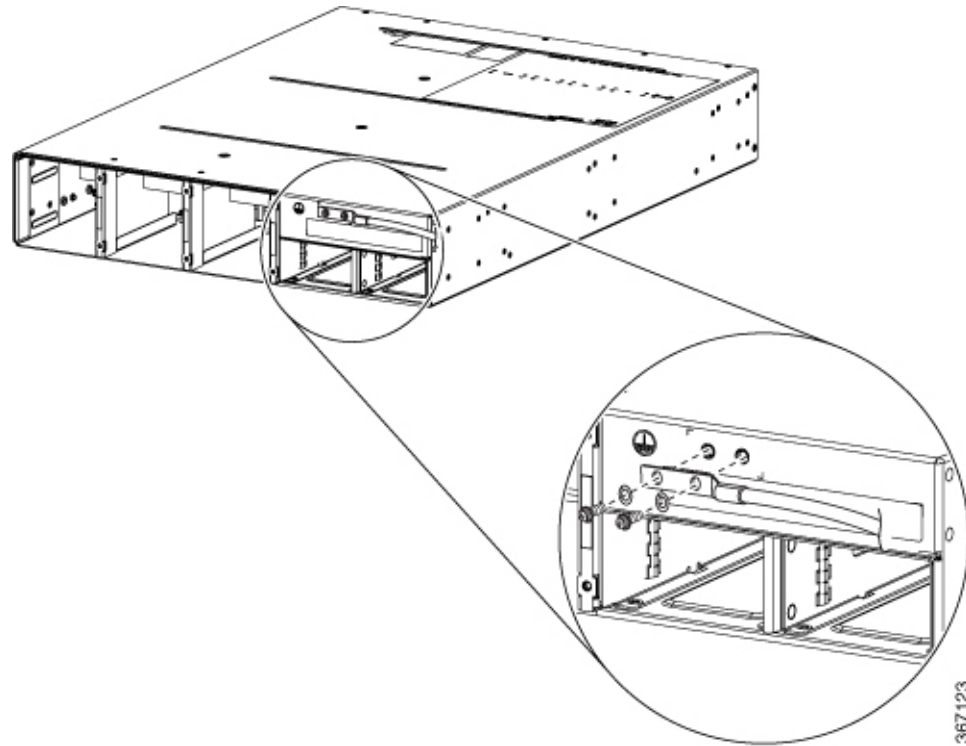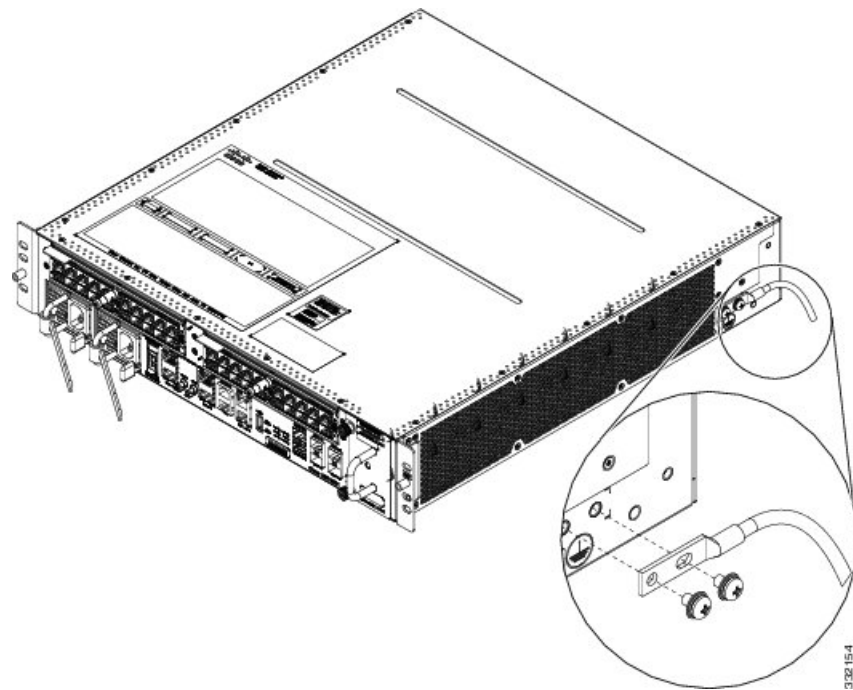*Figure 31: NEBS Bonding and Grounding for the Cisco ASR 9901 Router*

Figure 32: NEBS Bonding and Grounding for the Cisco ASR 9001 Router

Step 2 Tighten the grounding screws securely to the receptacles.

Step 3   Prepare the other end of the grounding wire, and connect it to the appropriate grounding point at your site to ensure an adequate earth ground.

Installing the Optional Air Plenum Kit

The Cisco ASR 9001 Router has an optional air plenum kit (PID ASR-9001-PLENUM=) that converts the chassis from side-to-side ventilation to front-to-back ventilation. This section describes how to install the air plenum kit in a rack.
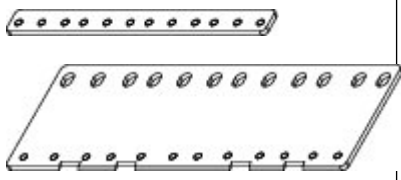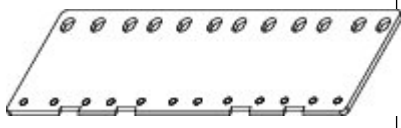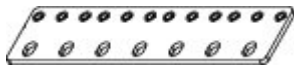
Air Plenum Kit Contents

The Cisco ASR 9001 Plenum Kit includes:

- One plenum assembly
- Adapter plates (three types, depending on the rack-type)
- One cable management tray and cable guide
- One grounding bracket
- Two grounding lugs with four M4 screws (two screws per grounding lug)
- Two 10-32 UNC screws and two M4 screws (for attaching the grounding bracket the Cisco ASR 9001 chassis)

Supported Rack Types and Adapter Plates

The following table lists the racks that support the optional air plenum kit and adapter plates.

Table 1: Supported Rack Types and Adapter Plates

Rack Type	Rack Standard	Adapter Plates
19-inch and 23-inch rack, two-post or four-post, 600 mm depth	EIA standardFlat profile post	
23-inch cabinet, adjustable two-post or four-post, 600 mm depth	EIA Standard	
21-inch cabinet	ETSI	

Installing the Air Plenum Kit

The air plenum kit is mounted in the rack before the Cisco ASR 9001 Router is installed. The steps for mounting the air plenum kit in the rack are different, depending on the whether the kit is pre-assembled before mounting it in the rack or assembled after the plenum base is mounted in the rack.

- If the air plenum kit is pre-assembled before mounting it in the rack:

The side baffles, air filter assembly, and cable management tray are attached to the plenum base outside the rack. The plenum assembly is then installed from the rear of the 19-inch rack, or from the front or rear of the 23-inch rack.

- If the air plenum kit is assembled after the plenum is mounted in the rack:

The plenum base is first installed from the front (applicable to 19-inch rack). The side baffles, air filter assembly, and cable management tray are then installed in the plenum base after it has been mounted in the rack.

Note The cable guide is attached to the rack after the Cisco ASR 9001 Router is installed.

Installing the Air Plenum Kit in a 19-inch Rack

Note The air plenum kit is assembled and mounted in the rack before the Cisco ASR 9001 Router is installed.

To install the air plenum kit in a two-post or four-post 19-inch rack, follow these steps:

Procedure

Step 1 Place the plenum base on a flat and stable surface. Secure the left and right adapter plates to the front of the plenum base using two customer-supplied rack-mounting screws in the top and bottom screw holes on the plenum base.

Step 2 Lift the plenum base to the desired position in the rack. Align the screw holes on the adapter plates on the plenum base with the mounting holes in the rack.

Step 3 Attach the plenum base to the left and right rack rails using six customer-supplied rack-mounting screws, three on each side. Torque the screws to the weight specified for your particular rack (see the following figure).

Note If the front to rear spacing for the cabinet is 18.4 inches, attach the rear adapter plates for additional support (see Step 7).

Figure 33: Installing the Plenum Base in a 19-inch Rack
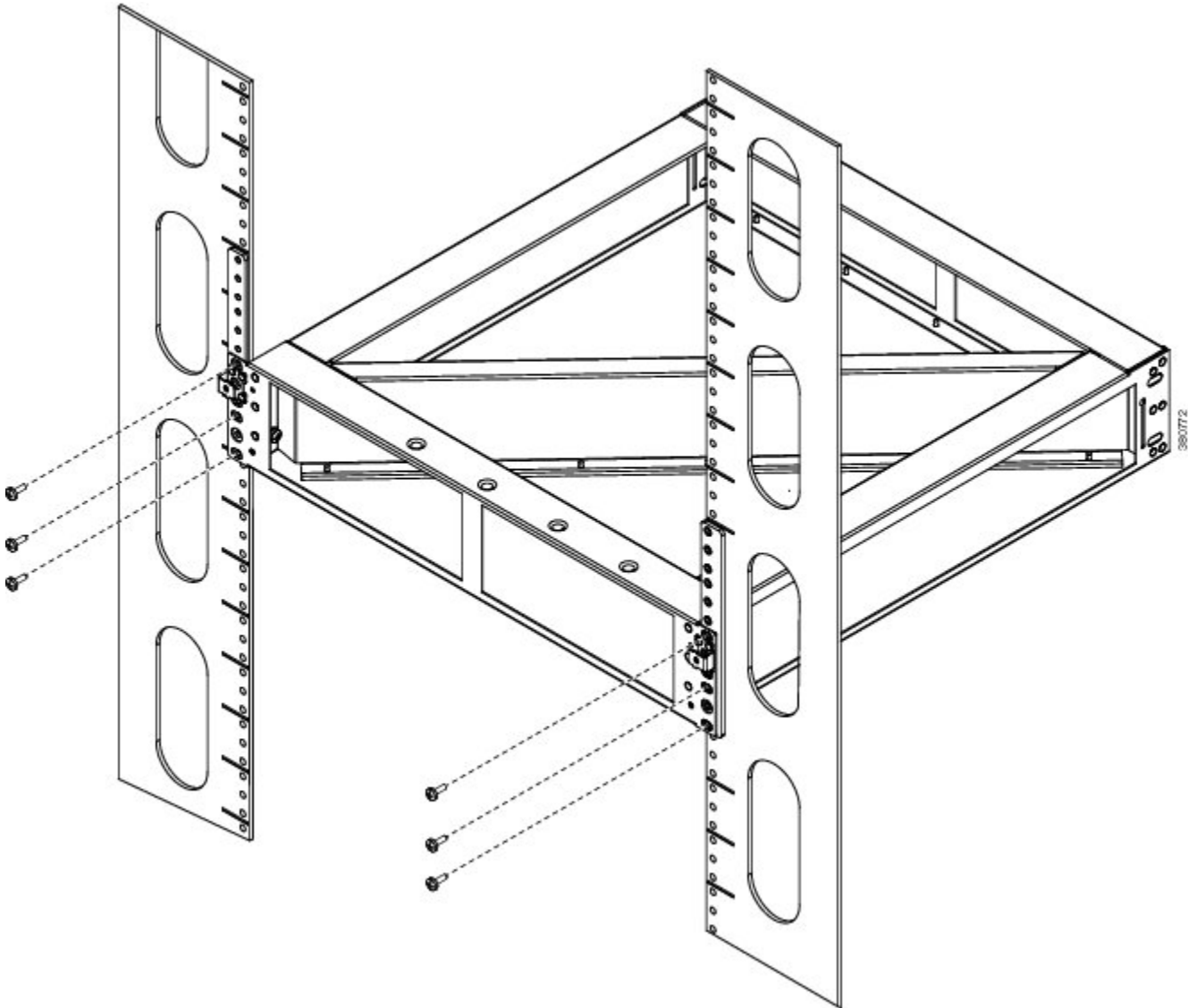
| **Step 4**	Attach the left and right air baffles to the plenum base using the Cisco supplied M5x10mm screws (four for each air baffle). The keyholes on each side of the plenum base will help to guide the air baffles into position (see *Attaching the Air Baffles to the Plenum Base* figure).
Step 5	Position the air filter at the front of the plenum assembly using the two key locators. Insert and hand-tighten the two captive screws to secure the air filter assembly to the plenum assembly (see *Attaching the Air Filter Assembly to the Plenum Assembly* figure).
Step 6	Position the cable management tray at the front of the plenum assembly (see *Attaching the Cable Management Tray to the Plenum Assembly* figure). Insert and hand-tighten both captive screws to secure the cable management tray to the plenum assembly.
Step 7	If you are installing the air plenum kit to a four-post rack:
	a) Attach the rear adapter plates to the rear side of the plenum assembly.
	b) Fasten the rear adapter plates with M3 x 10mm screws, three on each side (see the figure below).

Figure 34: Attaching the Rear Adapter Plates (Four-Post Rack)
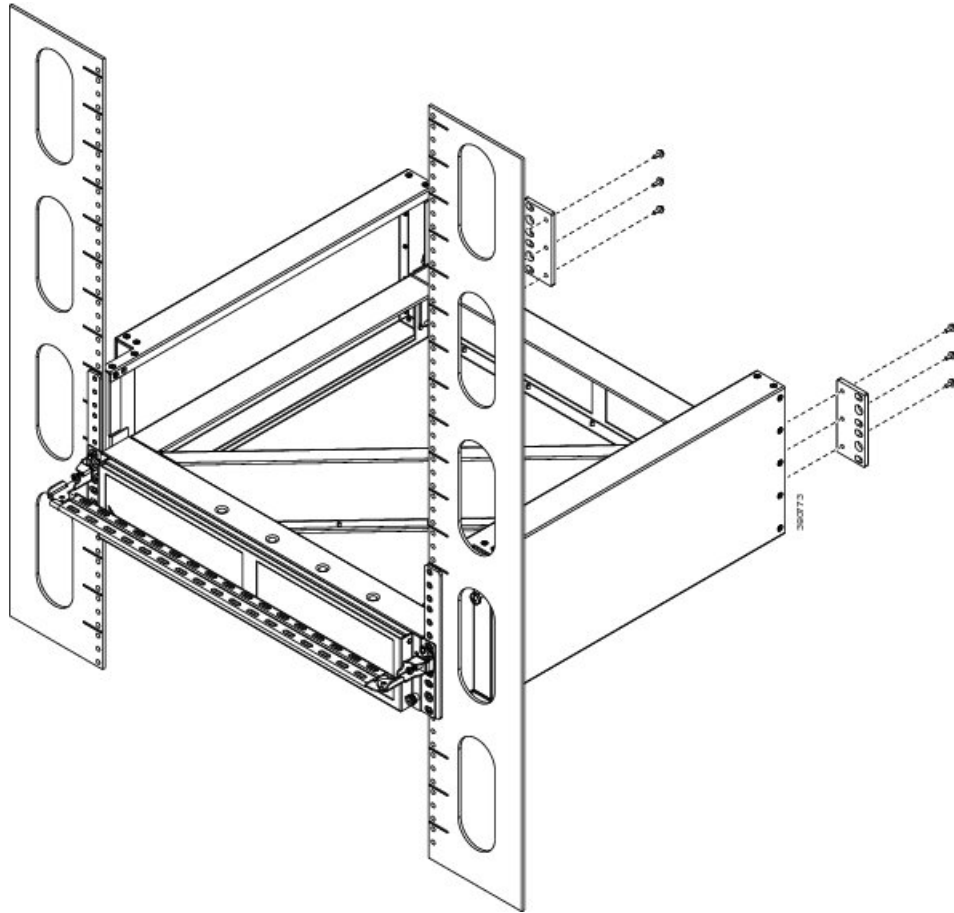

Step 8   Place the Cisco ASR 9001 Router on a flat and stable surface. Attach the rear grounding bracket (see the figure below).

Figure 35: Rear Grounding Bracket
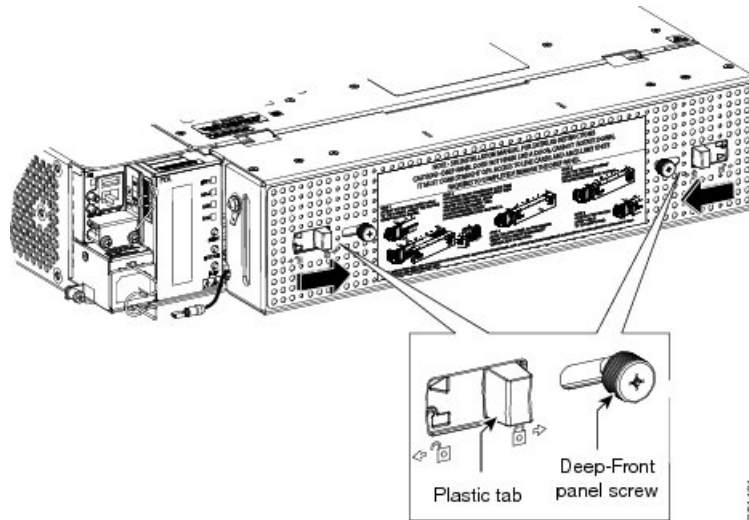
Step 9   Install the Cisco ASR 9001 Router in the plenum assembly in the rack (see Installing the Chassis in a Two-Post Rack, on page 26 or Installing the Chassis in a Four-Post Rack, on page 28).

Step 10   After the chassis is installed, attach the cable guide to the front left side post of the rack. Fasten the cable guide with one customer-supplied rack-mounting screw (see the figure below).

Figure 36: Attaching the Cable Guide
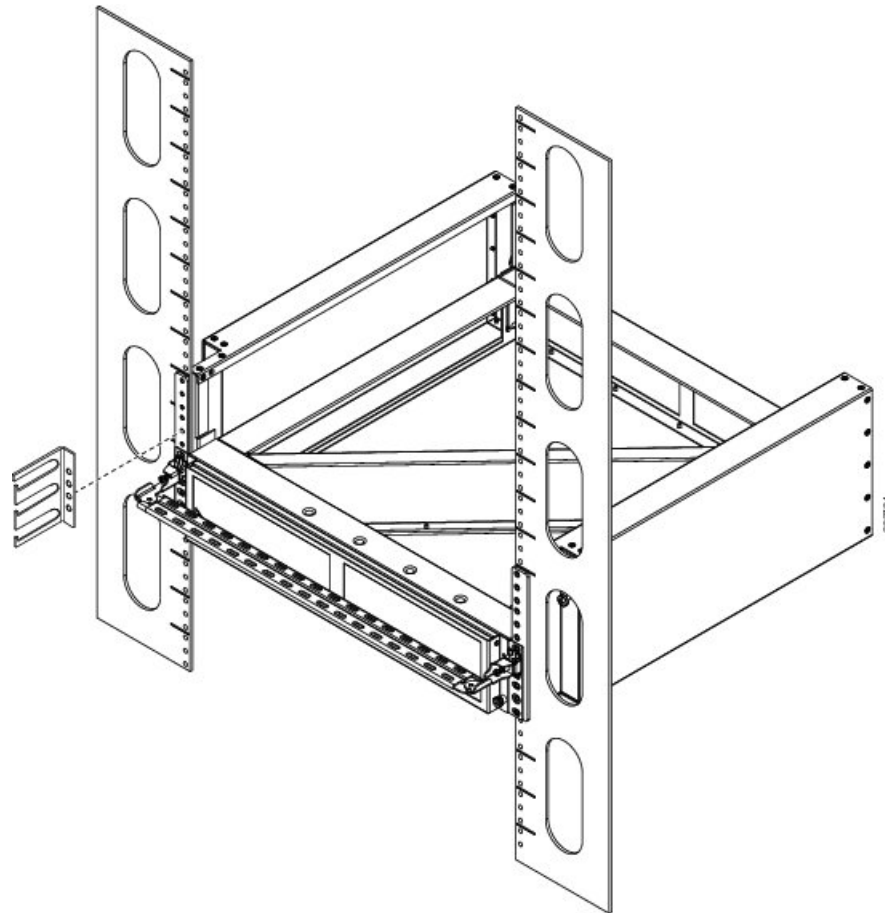
Installing the Air Plenum Kit in an ETSI Two-Post to Four-Post Rack

Note The air plenum kit is assembled and mounted in the rack before the Cisco ASR 9001 Router is installed.

To install the air plenum kit in an ETSI four-post open rack, follow these steps:

Procedure

Step 1 Place the plenum base on a flat and stable surface. Secure the left and right adapter plates to the front of the plenum base using two Cisco supplied M5x10mm screws rack-mounting screws in the top and bottom screw holes on the plenum base.

Step 2 Attach the left and right air baffles to the plenum base using the Cisco supplied M5x10mm screws (four for each air baffle). The keyholes on each side of the plenum base will help to guide the air baffles into position (see the figure below).

*Figure 37: Attaching the Air Baffles to the Plenum Base*
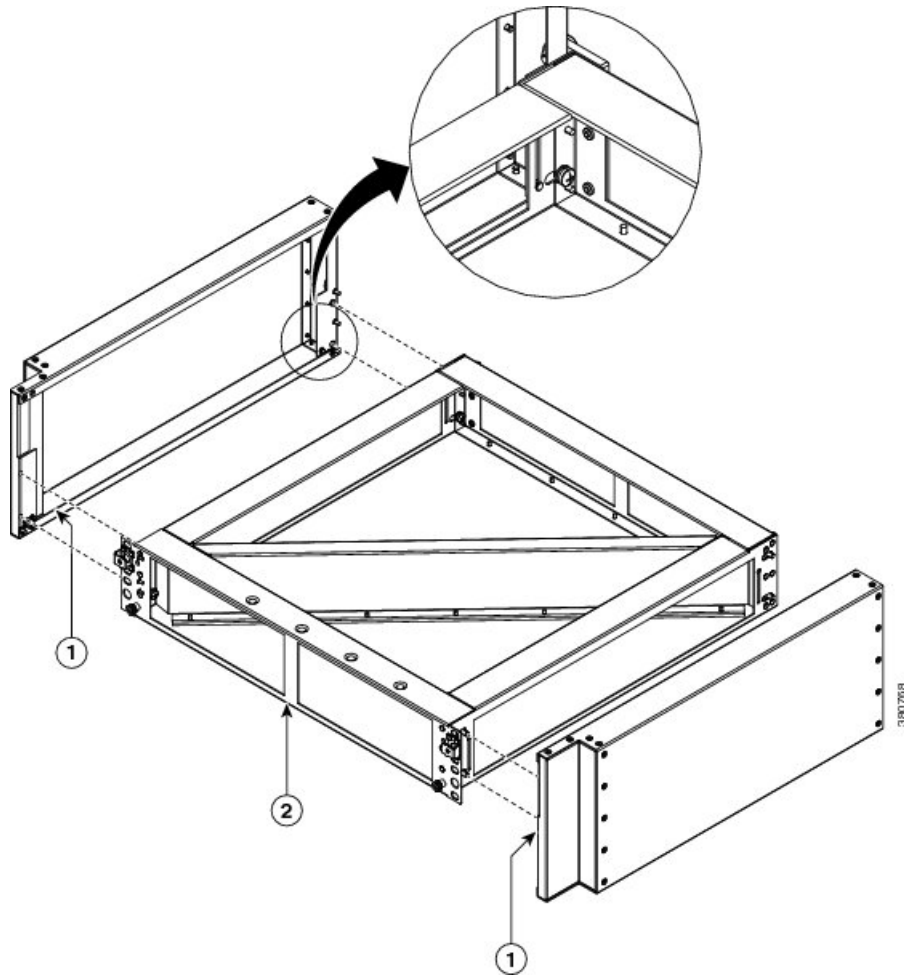
| 1	Air Baffle	2	Plenum base

Step 3 Position the air filter assembly at the front of the plenum assembly using the two key locators. Insert and hand-tighten the two captive screws to secure the air filter assembly to the plenum assembly (see the figure below).

*Figure 38: Attaching the Air Filter Assembly to the Plenum Assembly*
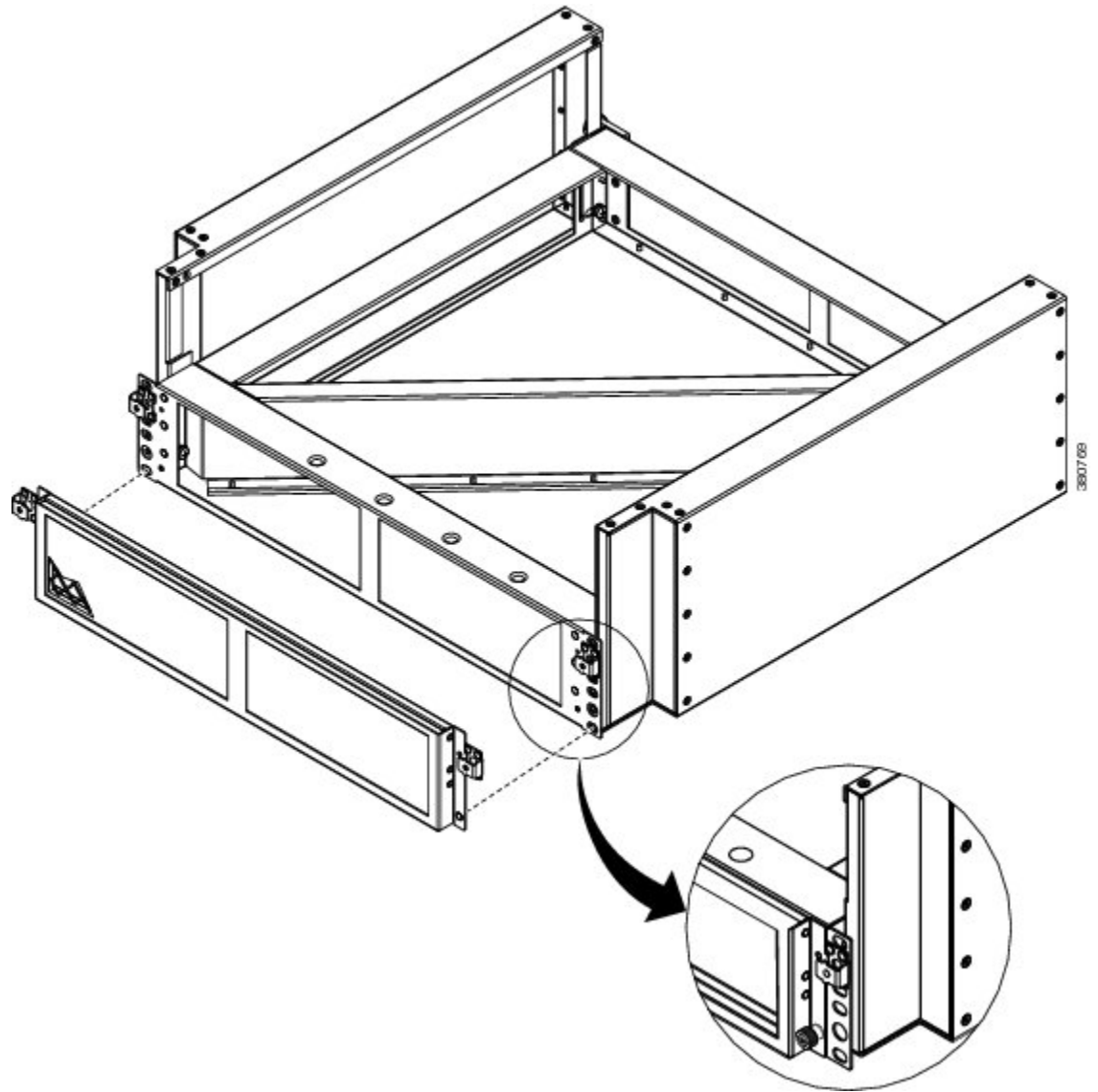
Step 4   Position the cable management tray at the front of the plenum assembly (the figure below). Insert and hand-tighten both captive screws (one on each side) to secure the cable management tray to the plenum assembly.

Figure 39: Attaching the Cable Management Tray to the Plenum Assembly
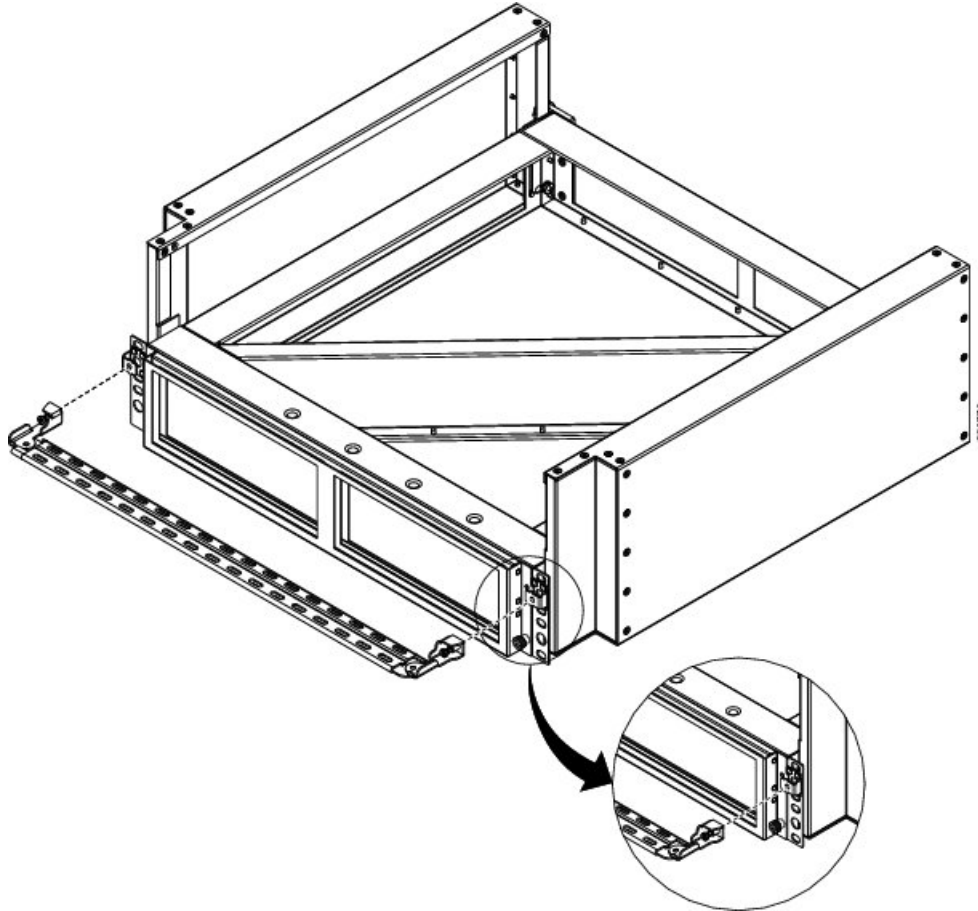
Step 5 Lift the plenum assembly to the desired position in the rack. Align the screw holes on the adapter plates of the plenum assembly with the mounting holes in the rack.

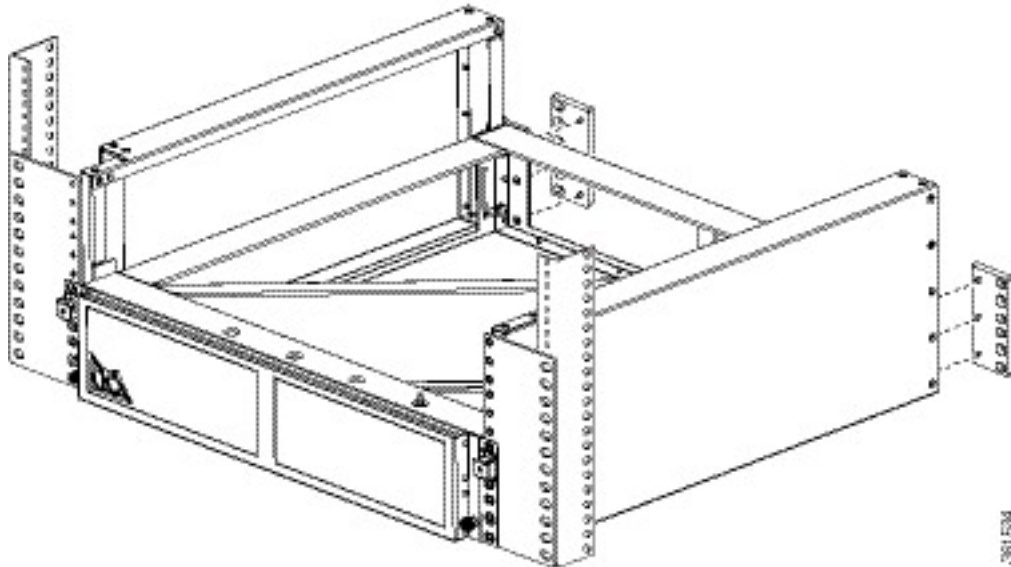*Figure 40: Installing the Plenum Assembly in a Rack*
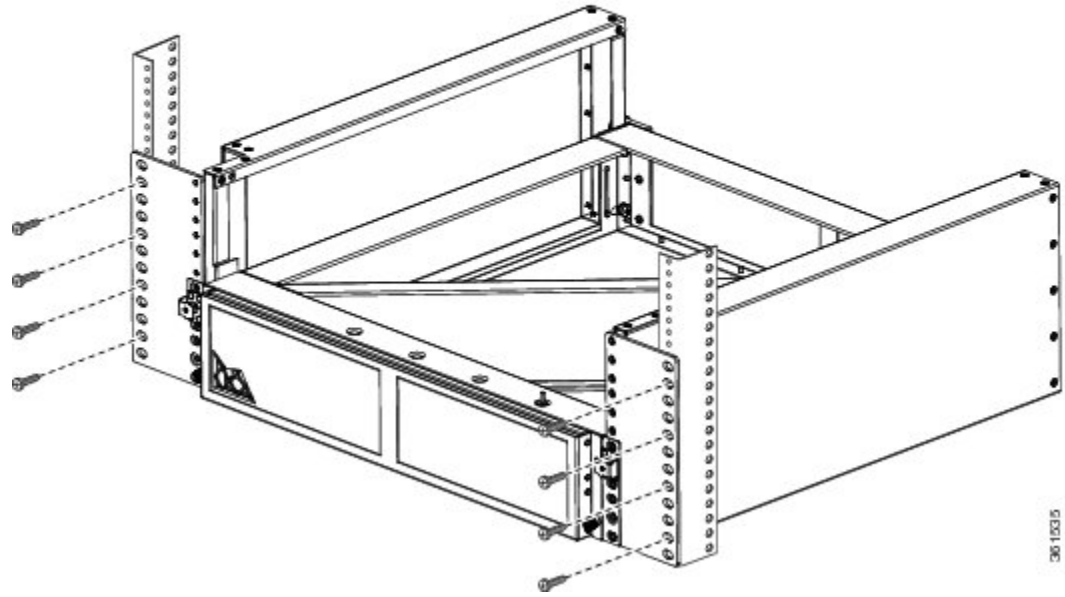
Step 6   Attach the plenum assembly to the left and right rack rails using customer-supplied rack-mounting screws. We recommend a minimum of four screws per side. These screws can vary in size and type depending on the rack that you use. Torque the screws to the weight specified for your particular rack.

Step 7   Attach the rear adapter plates to the rear side of the plenum assembly. Fasten the rear adapter plates with M3 x 10mm screws, three on each side (see the figure below).

Note   If the front to rear spacing for the cabinet is 18.4 inches, attach rear adapter plates for support.

Figure 41: Attaching the Rear Adapter Plates

Step 8   Place the Cisco ASR 9001 Router on a flat and stable surface. Attach the rear grounding bracket (*Rear Grounding Bracket* figure).

Step 9   Install the Cisco ASR 9001 Router in the plenum assembly in the rack (see Installing the Chassis in a Two-Post Rack, on page 26 or Installing the Chassis in a Four-Post Rack, on page 28).

Step 10   After the chassis is installed in the rack, attach the cable guide to the front left post of the rack at the same location as shown in *Attaching the Cable Guide* figure. Secure the cable guide to the rack post with one customer-supplied rack-mounting screw.