



Mounting the Cisco NCS 4000 Fabric Card Chassis

This chapter describes how to secure the Cisco NCS 4000 fabric card chassis in the rack.

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Preparing to Mount the Chassis in a Rack

Before you mount the Cisco NCS 4000 FCC into a rack, it is critical that the installation site be prepared properly to handle the chassis weight, power requirements, cooling needs, and other requirements.

Because a fully-configured chassis weight can be up to 440.92 lb (200 kg), you should review the rack specifications from the manufacturer to determine whether the racks you have are appropriate to handle the weight of the chassis.



Caution To avoid tipping the chassis and possible injury when installing it, take care to properly position the chassis in the rack when you are mounting it.

Unpacking the Chassis

This section describes how to unpack the chassis from its shipping crate.



Caution The crated Cisco NCS 4000 FCC is tall and heavy. Handle it carefully to reduce the risk of tipping the chassis over too far so that it falls to the floor and causes injury. We recommend that at least two people move the chassis together to better support its size and weight.

The following table lists the physical characteristics of the Cisco NCS 4000 FCC shipping crate.

Weight (estimated maximum)	<ul style="list-style-type: none">• 227 lb (103 kg) chassis as shipped.• 375 lb (170 kg) shipping crate with pallet• 441 lb (200 kg) chassis fully loaded with power modules, fan trays, cards, and door
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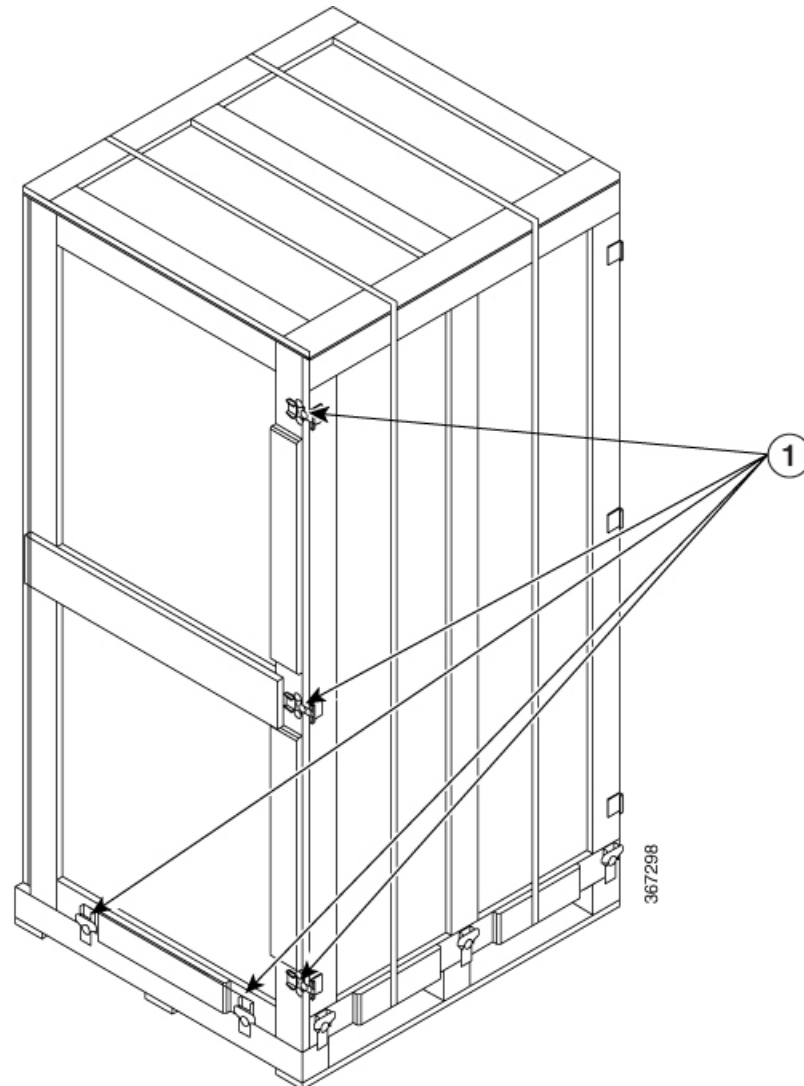
Dimensions	Height: 84 in. (213.4 cm)
	Width: 41 in. (104.1 cm)
	Length: 38 in. (96.52 cm)

To unpack the chassis, follow these steps:

Procedure

- Step 1** Locate a large area to accommodate and remove the chassis crate.
- Step 2** Carefully move the pallet containing the chassis to the staging area where you plan on unpacking it.
- Caution** The chassis with pallet should be handled carefully to eliminate the risk of tipping over the chassis.
- Step 3** Disengage the metal link-lock latches that are securing the crate to pallet, and the crate door to the rest of the crate as seen in the figure below.

Figure 1: Cisco NCS 4000 Series Chassis Crate



1	Metal link-lock latches
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Step 4 Using two people open and remove the crate carefully from the shipping pallet.

Tip Be sure to save the packaging in case you need to return any of the components.

Step 5 Remove the packaging cushion from the top of the chassis.

Leave the chassis in place until you are ready to move and install the chassis in the rack.

Removing the Chassis from the Pallet



Note Do not remove the chassis support brackets until you are ready to move and install the chassis.

Required Tools and Equipment

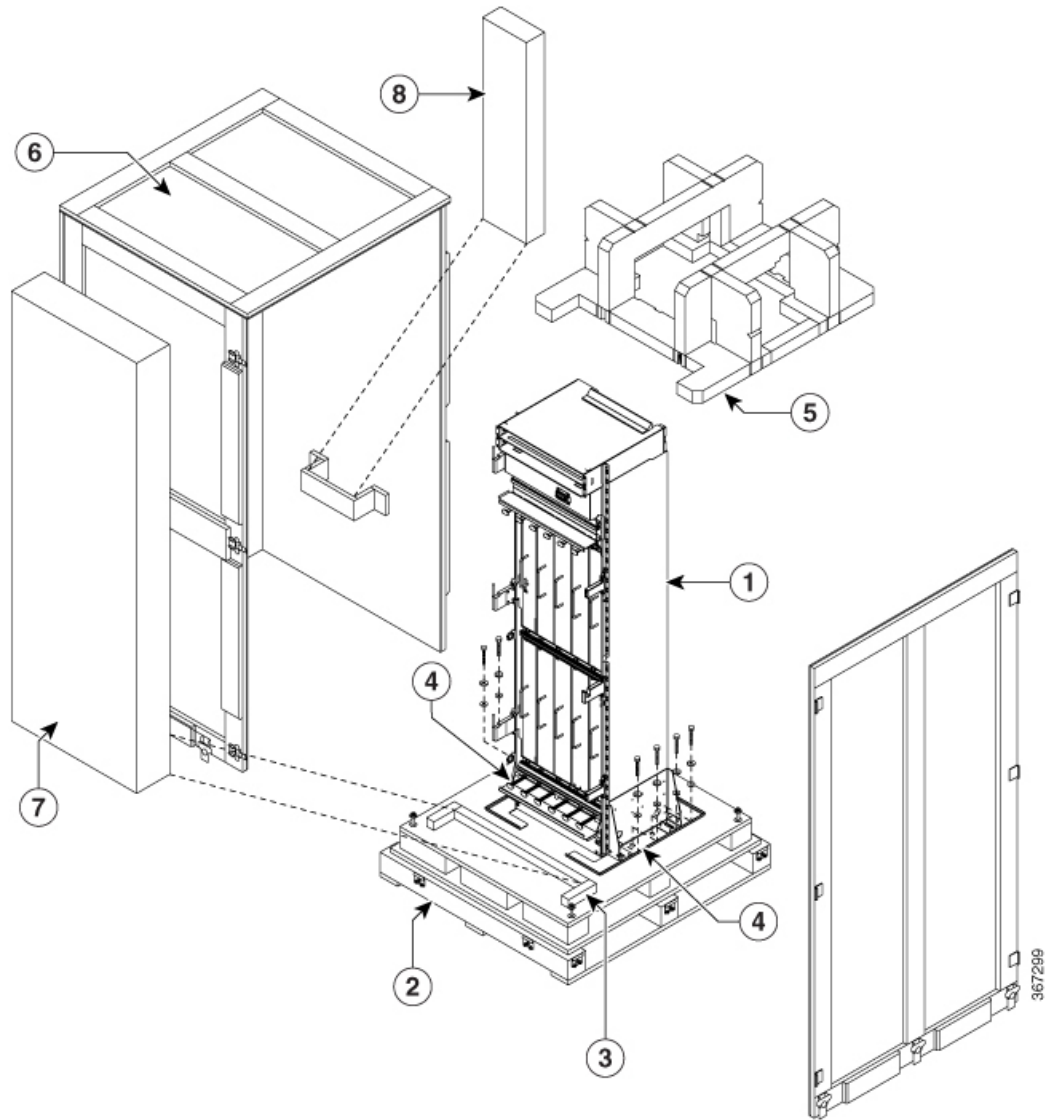
- Pry bar or claw hammer
- Number-2 Phillips screwdriver
- 9/16-inch or M14 wrench or socket
- Forklift

To remove the chassis from the pallet, follow these steps:

Procedure

Step 1 Remove the wooden cleat using a pry bar or claws of hammer.

Figure 2: Unpacking the NCS 4000 Fabric Chassis



1	NCS 4000 fabric chassis	5	Packaging cushion
2	Pallet	6	Crate
3	Wooden cleat	7	Chassis door
4	Bolts	8	Accessory kit

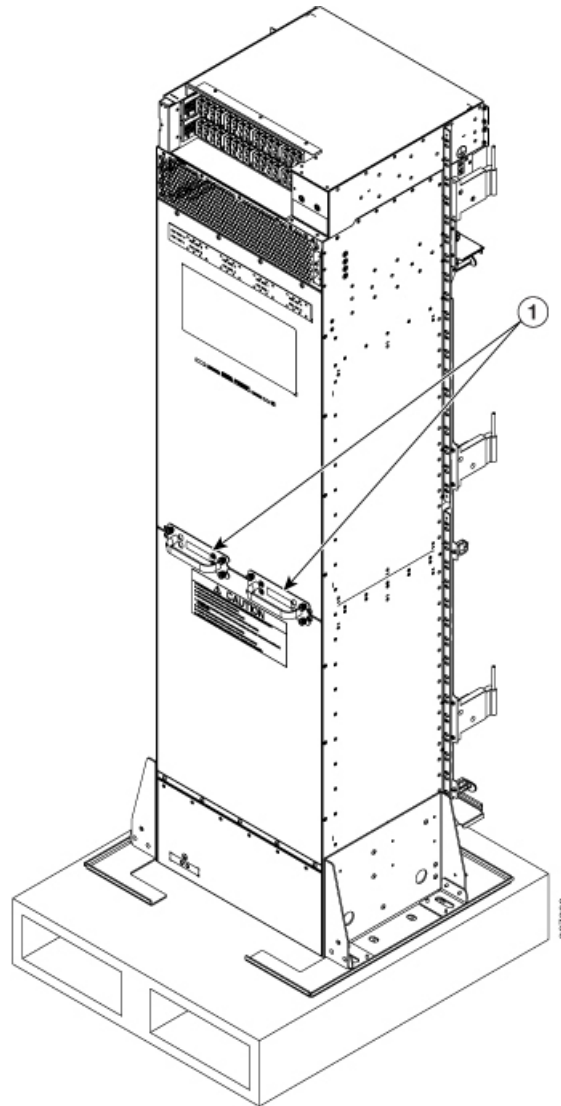
Step 2 Using a 9/16-inch or M14 wrench or socket, remove the eight bolts that are securing the brackets to the pallet. Do not remove the brackets from the chassis until the chassis is ready to be installed in the rack.

Step 3 Align the forklift to the surface of the pallet. Using at least two people, slide the chassis onto the forklift.


Note

Use the handles on the rear side of the chassis to help move the chassis onto the forklift. See figure below.

Figure 3: Chassis Handles



1	Chassis handles
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	CAUTION
<p>1. USE HANDLES TO MOVE THE CHASSIS FROM PACKAGING TO FORK/SCISSOR LIFT</p> <p>2. DO NOT USE HANDLES TO LIFT THE CHASSIS</p> <p>3. USE HANDLES TO GUIDE THE CHASSIS ONTO RACK</p> <p>4. REMOVE HANDLES ONCE THE CHASSIS ASSEMBLED ON A RACK</p> <p>1. UTILISER LES POIGNÉES UNIQUEMENT POUR GLISSER LE CHÂSSIS HORS DE LA BOÎTE SUR L'ÉLÉVATEUR</p> <p>2. NE PAS SOULEVER LE CHÂSSIS PAR LES POIGNÉES</p> <p>3. UTILISER LES POIGNÉES POUR GUIDER LE CHÂSSIS SUR LE RACK</p> <p>4. UNE FOIS LE CHÂSSIS INSTALLÉ SUR LE RACK, RETIRER LES POIGNÉES</p>	

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Note Make sure that the L-shaped extensions of the brackets rest completely on the fork lift blades before you transport the chassis. This ensures chassis stability.

Step 4 Transport the chassis to the installation location.

Note Make sure that you have at least two people to transport the chassis.

Installing the Mounting Brackets

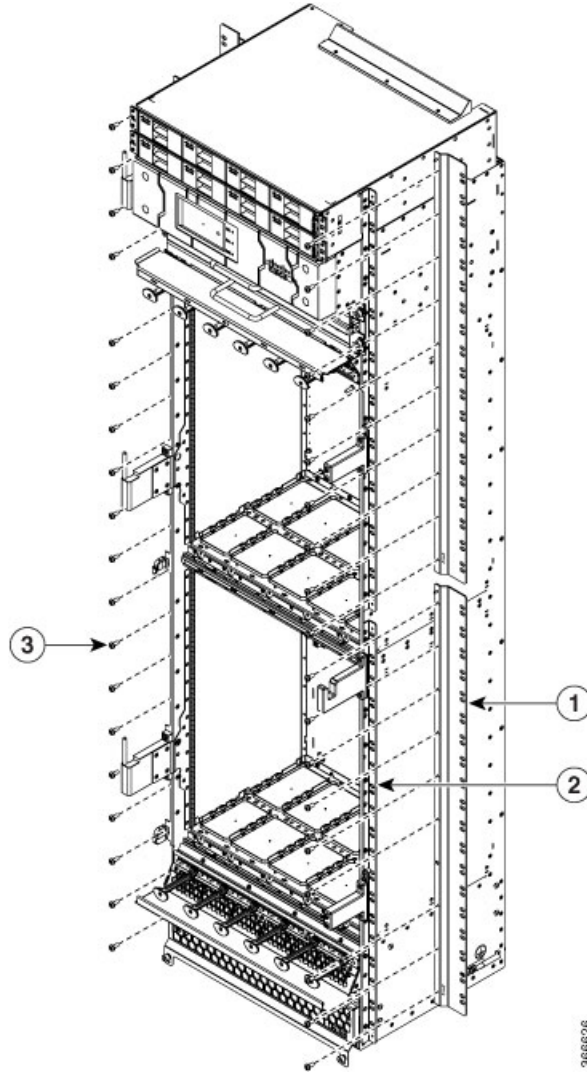
This section explains how to install the top and bottom 23-inch mounting brackets on the chassis.

Required Tools and Equipment

- Number-2 Phillips screwdriver
- Cisco installation kit (NCS4KF-INST-KIT=)

To attach the mounting brackets, simply fix each adaptor bracket onto the 10-inch bracket that is already preinstalled on the chassis using at least 14 screws on each side as shown in the figure below.

Figure 4: Attaching Chassis Mounting Brackets



1	23-inch bracket adaptor
2	19-inch pre-installed bracket
3	Screws

Mounting the Chassis into a Rack

This section describes how to mount the Cisco NCS 4000 FCC into a rack.



Caution The crated Cisco NCS 4000 FCC is tall and heavy. Handle it carefully to reduce the risk of tipping the chassis over too far so that it falls to the floor and causes injury. We recommend that at least two people move the chassis together to better support its size and weight.

Prerequisites

- Make sure that the rack is level and bolted to the floor.
- Make sure that the mounting brackets are installed on the chassis.

Required Tools and Equipment

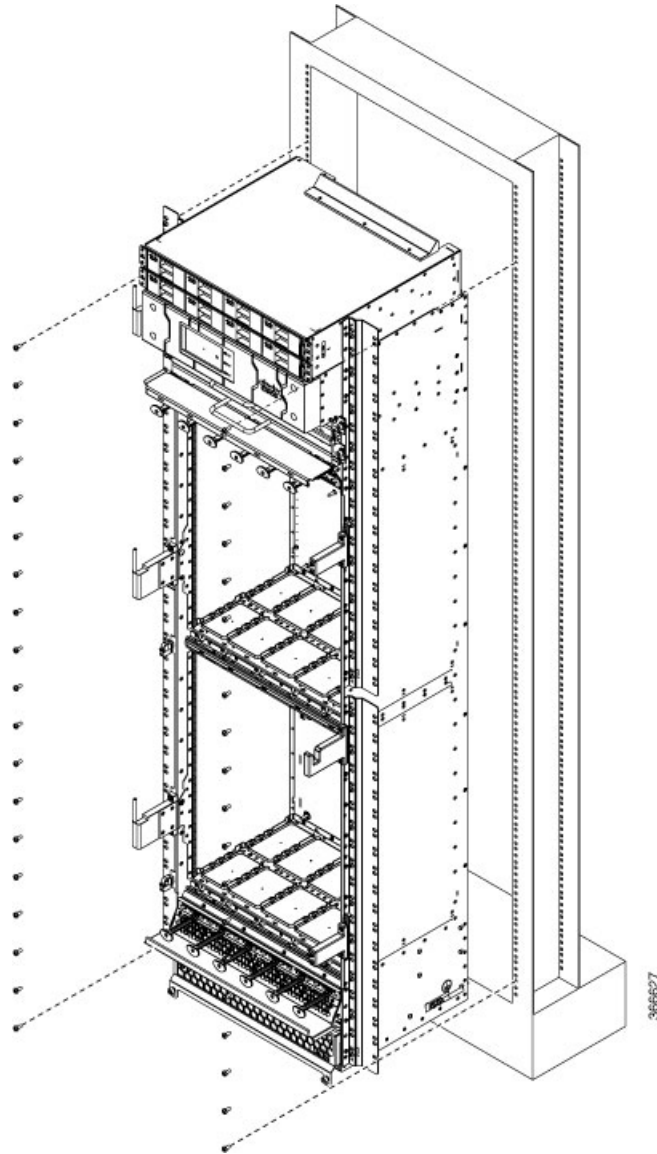
- Number 2 Phillips screwdriver
- Cisco installation kit (NCS4KF-INST-KIT=)

To mount the chassis in the rack, follow these steps:

Procedure

- Step 1** With the chassis on the forklift, align the chassis with the rack.
Ensure there is sufficient room to maneuver the forklift into the installation location.
- Step 2** Using a number-2 Phillips screwdriver, remove the eighteen screws that are securing the brackets to the chassis.
The eighteen screws are present on the shipping bracket.
- Step 3** Using the forklift, raise the chassis to the required height of the chassis installation position.
- Step 4** Move the chassis with at least two people. With one person standing in front of the chassis, carefully push the chassis into the rack. With one person standing behind the chassis, use the rear pull handles to carefully pull the chassis from the forklift to the rack until the chassis mounting brackets make contact with the rack vertical posts.
- Caution** Ensure that the chassis is supported when it is moved from the forklift to the rack if the forklift blades do not fully go into the rack space.
- Step 5** Insert and partially tighten the 28 mounting screws to attach the chassis vertical mounting brackets to the rack vertical mounting rails.

Figure 5: Chassis Mounting Holes



Note To accommodate equipment racks with different mounting-hole patterns, the chassis mounting brackets have groups of screw holes on either side. The mounting holes in these rails are spaced so that one hole in each hole group aligns with a hole in the equipment rack or the optional center-mount bracket. Use the corresponding mounting hole (in the same hole group) on the opposite side of the chassis to level the chassis in the rack.

- Step 6** Use the screwdriver to fully tighten the screws after all the screws have been installed using a torque of 22 in-lb.
- Step 7** Remove the forklift.
- Step 8** Remove the two rear handles after the chassis has been installed.

