Rack Installation Instructions

Review the documentation that comes with your rack cabinet for safety and cabling information. Before you install your server in a rack cabinet, review the following guidelines:

- Make sure that the room air temperature is below 35°C (95°F).
- Do not block any air vents; usually, 15 cm (6 in.) of air space in the rear and 5 cm (2 in.) in the front provides proper airflow.
- Plan the device installation starting at the bottom of the rack cabinet.
- Install the heaviest device in the bottom of the rack cabinet.
- Do not extend more than one device out of the rack cabinet at the same time.
- Remove the rack doors and side panels to provide easier access during installation.
- Connect the server to a properly grounded outlet.
- Do not overload the power outlet when you install multiple devices in the rack cabinet.
- Install the server in a rack that meets the following requirements:
  - Minimum depth of 49 mm (1.9 in.) between the front mounting flange and inside of the front door
  - Minimum depth of 636 mm (25.0 in.) and maximum depth of 788 mm (31.0 in.) between the front and rear mounting flanges when no cable-management arm is installed
  - Minimum depth of 716 mm (28.2 in.) and maximum depth of 744 mm (29.3 in.) between the front and rear mounting flanges to support the use of the cable-management arm
  - Minimum depth of 166 mm (6.5 in.) between the rear mounting flange and inside of the rear door to support the use of the cable-management arm
  - For additional resources for selecting suitable rack cabinets, go to www.ibm.com/servers/eserver/xseries/library/configtools.html

Statement 4:

Use safe practices when lifting.

≥18 kg (39.7 lb.)

≥32 kg (70.5 lb.)

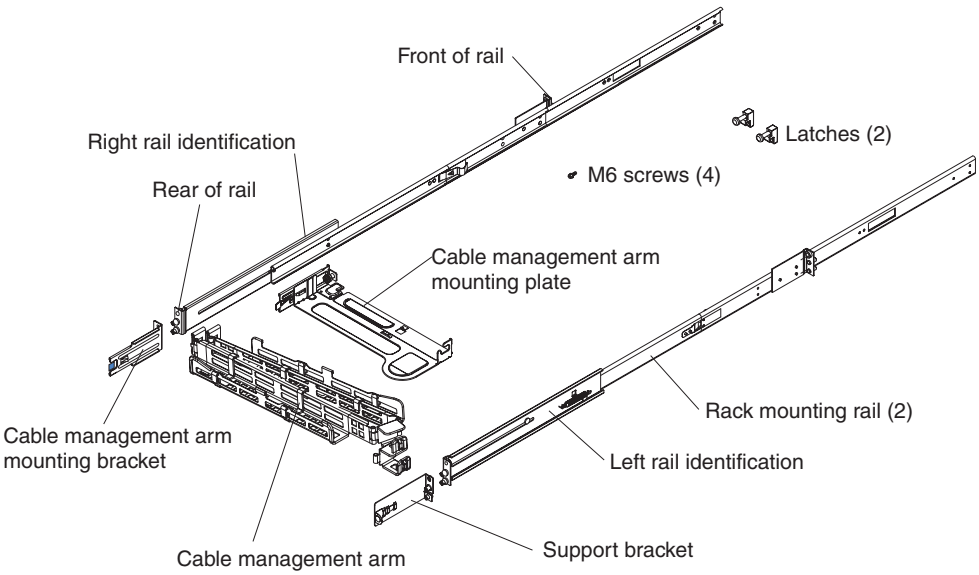
≥55 kg (121.2 lb.)

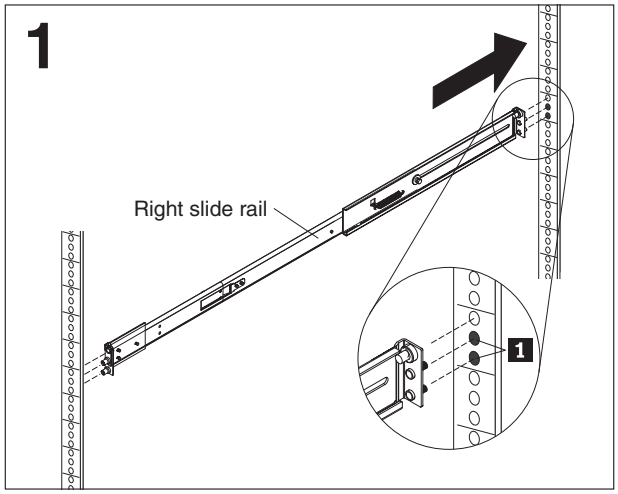
Statement 26:

CAUTION:
Do not place any object on top of rack-mounted devices.

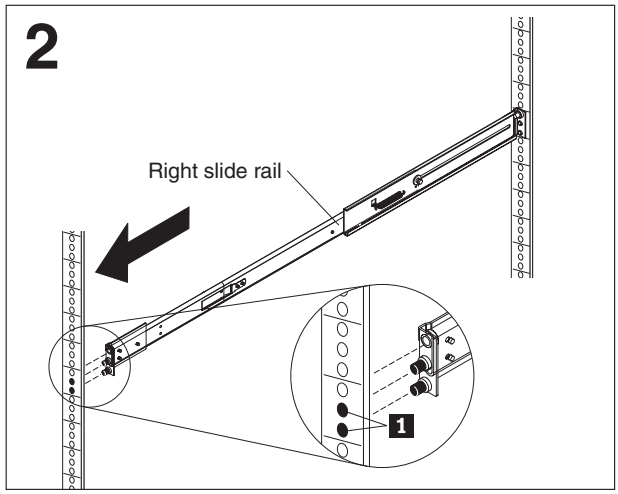
This server requires only a Phillips screwdriver for installation.

The following illustration shows the items that you need to install the server in a rack cabinet. If any items are missing or damaged, contact your place of purchase.

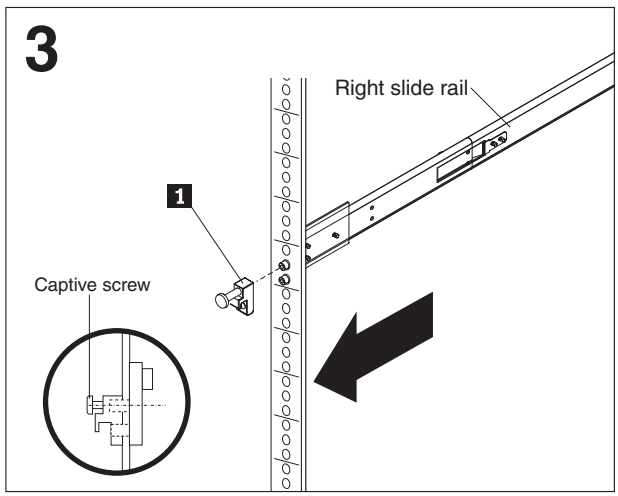




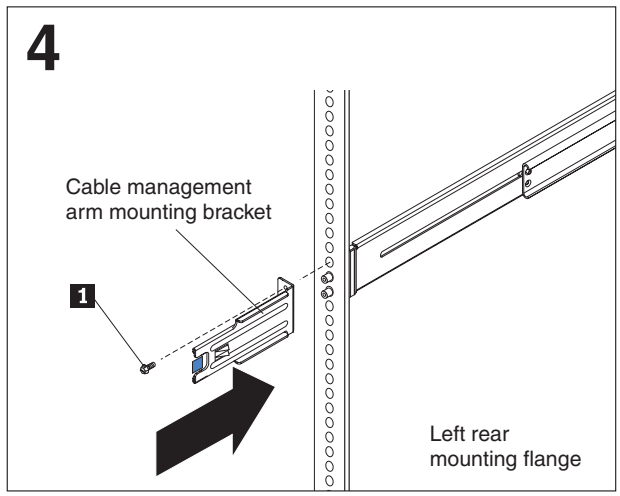
Insert the right slide rail into the rear rack mounting flange, with the rail pins **1** protruding through the flange.



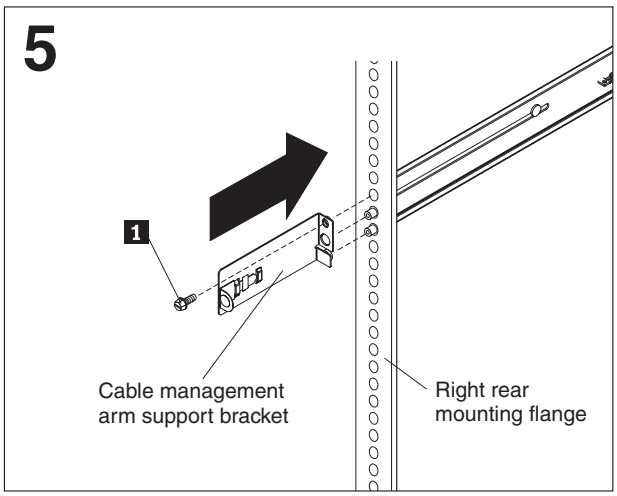
Extend the right slide rail and insert it into the front rack mounting flange, with the rail pins **1** protruding through the flange. Insert the left slide rail in the same way.



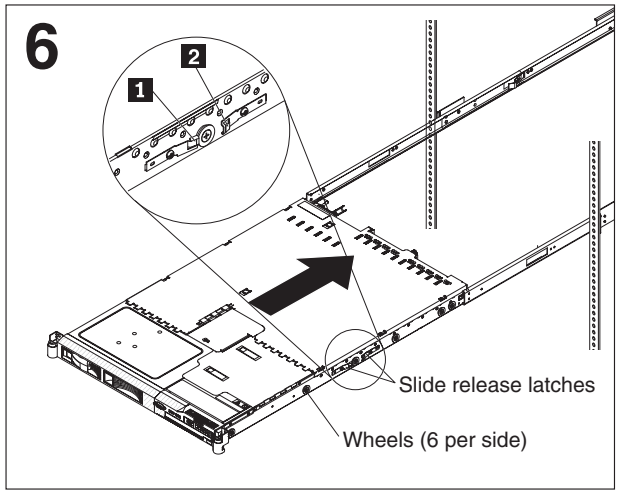
Attach one latch strike **1** to the front of the right rail, using the captive screw. The screw should be only finger tight. Attach the other latch strike to the front of the left rail in the same way.



Attach the slide rail and the cable-management-arm mounting bracket to the left rear mounting flange with a single screw **1** . The screw should be only finger tight.

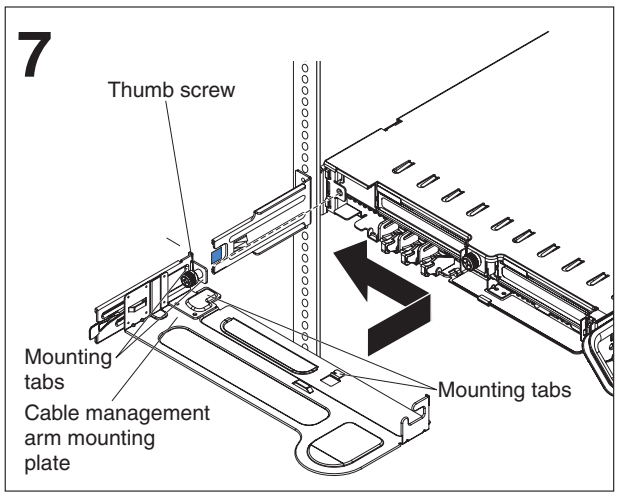


Attach the other slide rail and the cable-management-arm support bracket to the right rear mounting flange, using a single screw **1** . The screw should be only finger tight.

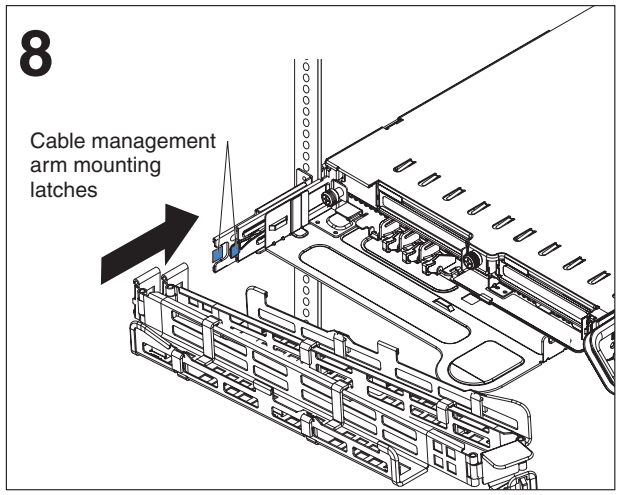


Fully extend the slides from the front of the rack cabinet until they lock. Push the server into the slides until the rear slide release latches **2** click into place, locking the server in the slides. Press the front slide release latches **1** on both sides of the server and move the server into the rack cabinet and back out to verify that the server moves freely. Securely tighten the four mounting screws that you previously installed at the front and rear of both rails. Press the front slide release latches **1** and push the server all the way into the rack cabinet.

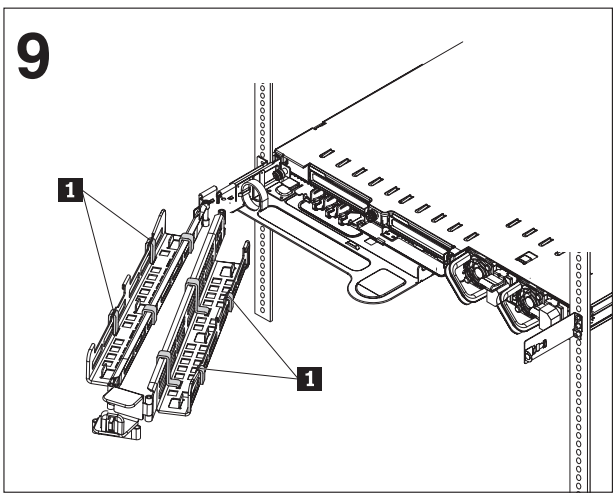
Attention: Use the rear slide release latches **2** only to remove the server from the rack. Before you press the latches, position yourself to support the weight of the server when it is no longer held by the slides.



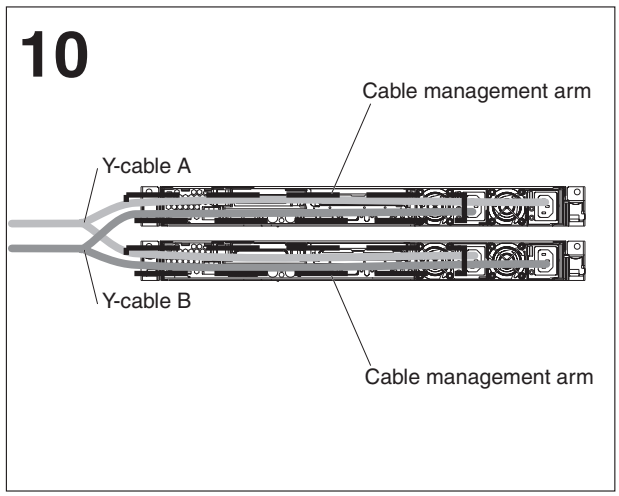
Align the cable-management-arm mounting plate with the rear of the server so that the four locking tabs on the mounting plate are aligned with the four tabs on the server. Slide the mounting plate to the left to engage the tabs; then, tighten the thumbscrew to secure the mounting plate to the server.



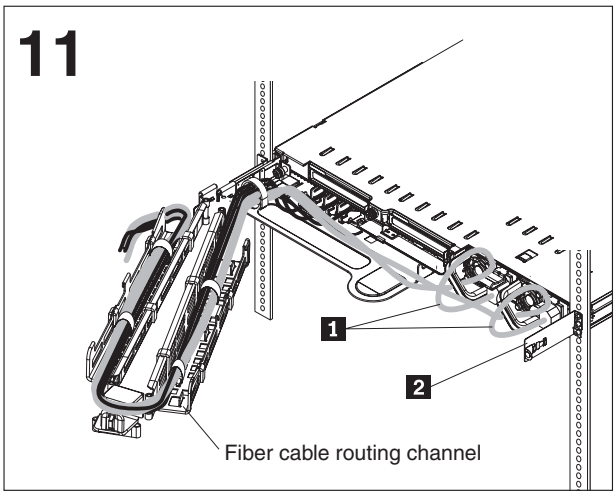
Align the cable-management arm with the two mounting latches. Slide the arm toward the server until both latches mate to their mounting brackets with audible clicks. To verify correct installation of the cable-management arm, extend the server fully from the front of the rack and verify that the arm moves freely. Push the server all the way back into the rack cabinet.

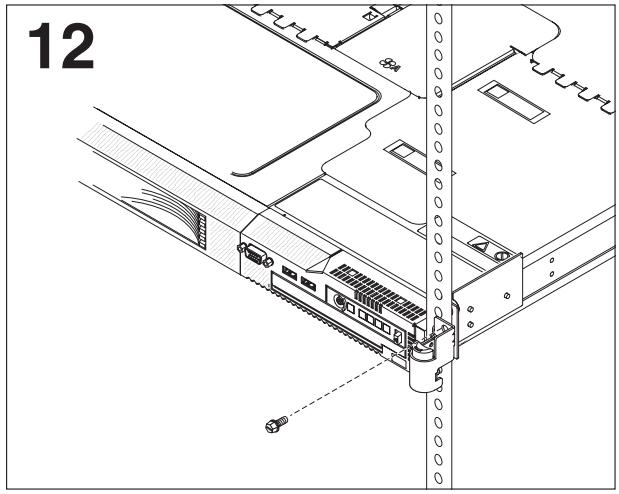


Locate the five preinstalled hook-and-loop straps, and the retainer slots **1** that hold them in the open position. In a later step, you will need to free the straps from these slots and use them to secure the cables in position in the cable-management arm.



If you have installed a second power supply in each of the servers in the rack, you can use the Y power cable that came with the power-supply kit option to ensure server redundancy. Cable the servers as shown in the illustration, using one Y power cable to provide power to two different servers. Each Y power cable must be connected to a different power source, such as a power distribution unit (PDU), to maintain redundancy.





Attention:

1. Make sure that you route Fibre Channel cables through the labeled channel on the cable-management arm, to ensure proper bend radius and prevent damage to these cables.
2. Make sure that you route each power cord through the power supply handle **1** and leave enough slack to provide a service loop so that the power supply can be easily disconnected.

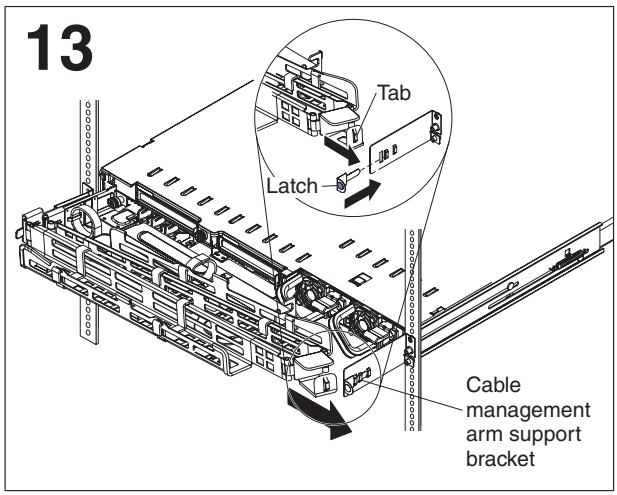
Rotate the cable-management arm away from the rear of the server to gain access to the server connectors. Attach the power cords and other cables to the rear of the server (including keyboard, monitor, and mouse, if required).

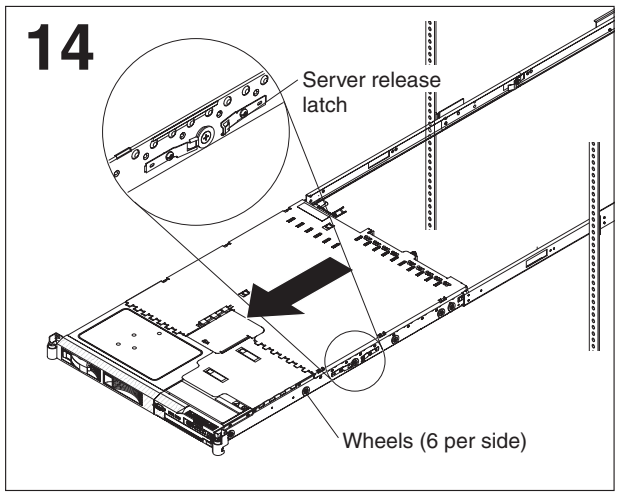
Rotate the cable-management arm back toward the rear of the server; then, stabilize the cable-management arm by securing it to the support bracket **2**, using the locking tab. Route the cables along the cable-management arm channel, allowing sufficient slack to avoid tension in the cables. Secure the cables, using the hook-and-loop straps that are attached to the arm.

Remove the locking tab and release the cable-management arm from the support bracket. Store the locking tab for future use by re-inserting it into the support bracket.

Attention: If you are transporting the rack cabinet, to avoid damaging the Fibre Channel cables, do not attach the Fibre Channel cables at this time.

Before you transport the rack cabinet to another location with the server installed, you must secure the server to the rack with M6 screws at the front right and front left of the rack cabinet.





While you install and route cables, and before you ship the server, you must secure the free end of the cable-management arm. Insert the tab on the arm into the support bracket and then secure it by sliding the latch into place.

Attention: The cable-management arm must be free of the support bracket before you attempt to slide the server out of the rack.

To remove the server from the rack, disconnect the cables and the cable-management arm from the server; then, slide the server forward until it latches in the service position. Press the server release latches on both sides of the server, and pull the server completely out of the slides.

Store this information with your server documentation for future use.

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