

Rack Installation Instructions

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

- Two or more people are required to install devices 2U or larger in a rack cabinet.
- See the server *Installation and Service Guide* for the maximum room air temperature.
- Install the server only in a rack cabinet that has perforated doors.
- Do not block any air vents, usually 15 cm (6 in.) of air space provides proper airflow.
- Plan the device installation starting from the bottom of the rack cabinet.
- Install the heaviest device in the bottom of the rack cabinet.
- Do not leave open space above or below an installed server in your rack cabinet. To help prevent damage to server components, always install a filler panel to cover the open space and to help ensure proper air circulation.
- Do not extend more than one device out of the rack cabinet at the same time.
- Connect all power cords to properly wired and grounded electrical outlets.
- Do not overload the power outlet when installing multiple devices in the rack.
- Remove the rack doors and side panels to provide easier access during installation.
- Install the server in a rack that meets the following requirements:
 - Minimum depth of 70 mm (2.76 in.) between the front mounting flange and inside of the front door.
 - Minimum depth of 190 mm (7.48 in.) between the rear mounting flange and inside of the rear door.
 - Minimum depth of 718 mm (28.27 in.) and maximum depth of 762 mm (30 in.) between the front and rear mounting flanges to support the use of the cable management arm.

Note: The maximum distance between the front and the rear EIA flange of the rack is 810 mm (31.9 in.).



Use safe practices when lifting.



≥18 kg (39.7 lb)



≥32 kg (70.5 lb)



≥55 kg (121.2 lb)



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

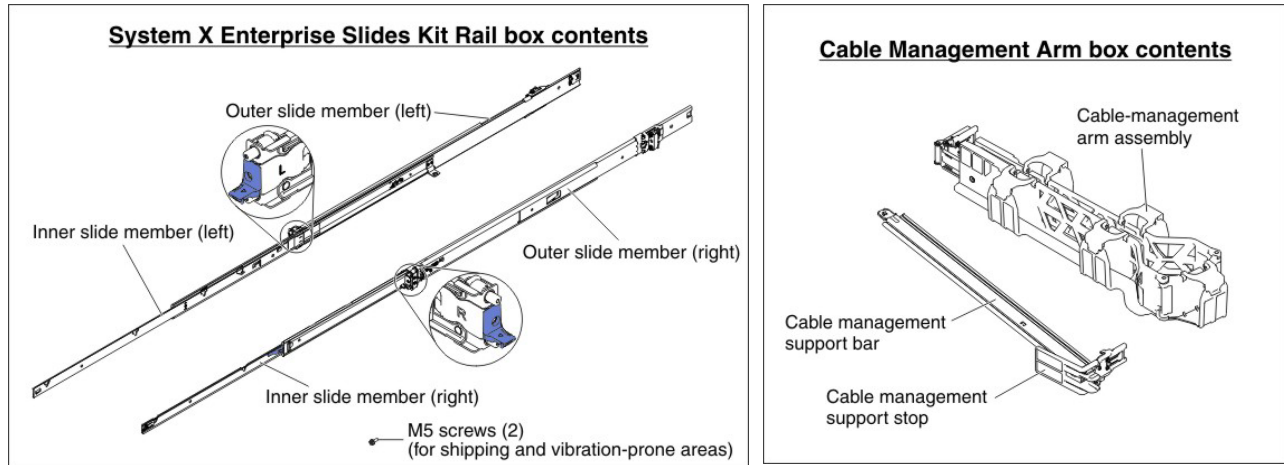


Note:

- The slide assemblies in the box can be installed in racks with unthreaded round holes or racks with square holes.
- Rack with unthreaded round holes is used for the illustrations in this guide.
- The illustrations in this document might differ slightly from your hardware.

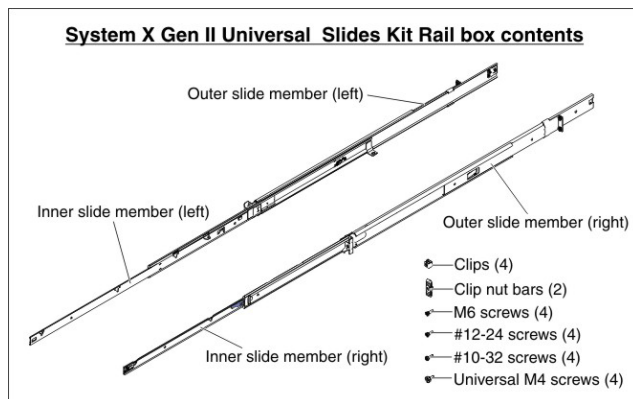
The following illustration shows the items that you need to install the server in a rack cabinet. If any items are missing or damaged, contact your place of purchase.

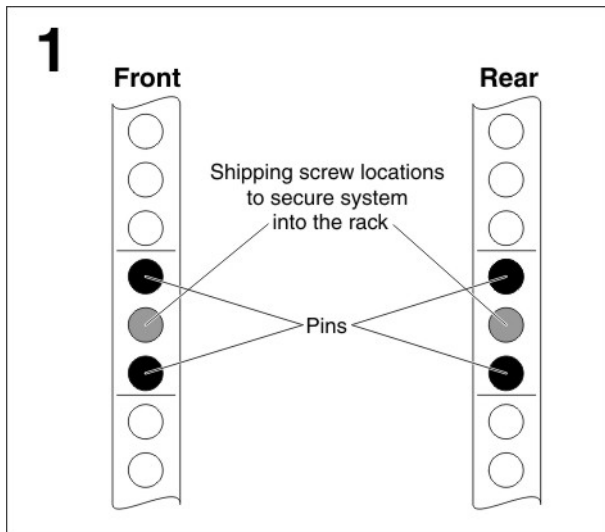
Note: You will need both the slide box and the cable management arm box for this installation.



If you choose the optional "System X Gen-II Universal Slides Kit", the items should be included in the slide box as the illustration shows below:

Note: You will be able to refer the related installation information for the different holes of the rack in **Appendix B, C and D**.

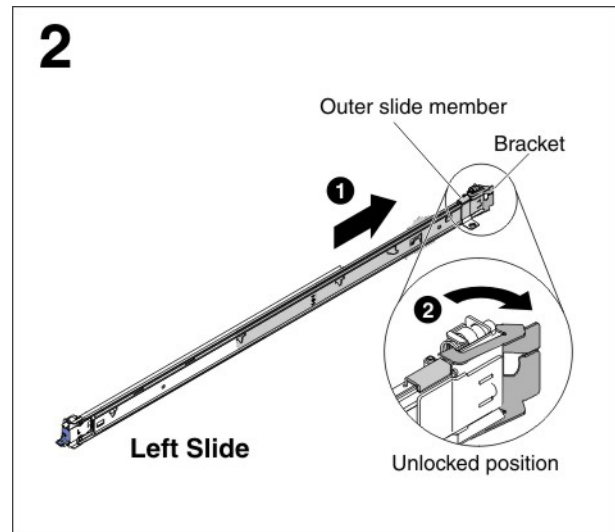




Identify rack space for system.

Select an available space (depending on the server you are installing) in your rack to install your server.

Note: You need 2U of space and the sliderails are installed in the bottom U of the 2U.

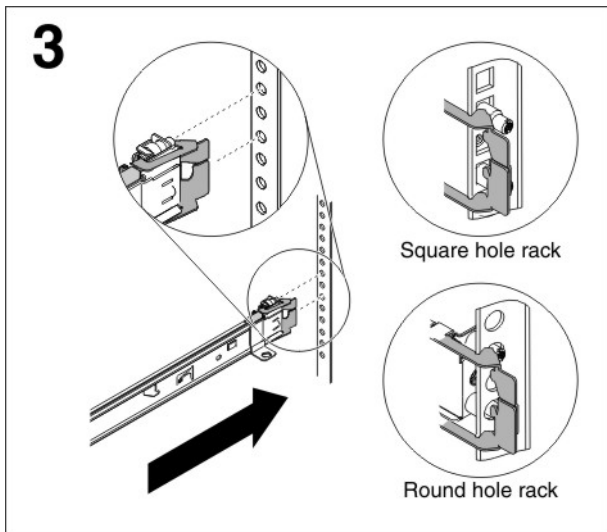


Fully extend the outer slide member to the rear

Extend **1** the outer slide member all the way back until you hear an audible click.

The rear rackmount bracket is now rotated into the unlocked position. **2**.

Note: Each slide is marked with **R** (right) or **L** (left).

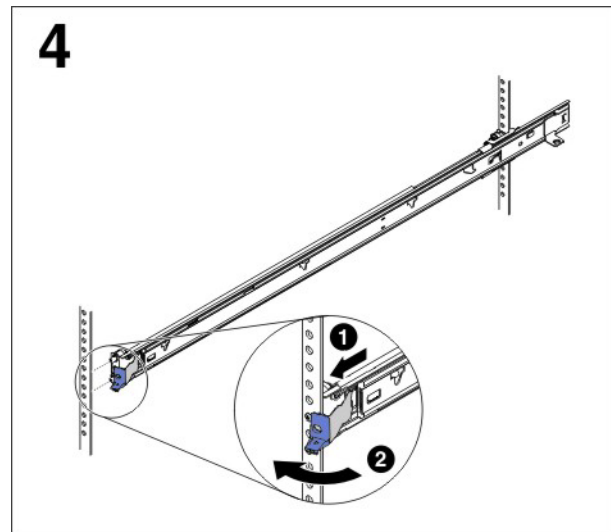


3 Attach the rear rackmount bracket to the rear of the rack.

Align the rear end of the outer slide member against the holes on the rear of the rack.

Line up the pins and push the slide in so that the pins go into the holes. The two slide pins will protrude through the top and bottom holes on the EIA flange.

Push the slide towards the rear of the rack until the rear rackmount bracket locks into place.



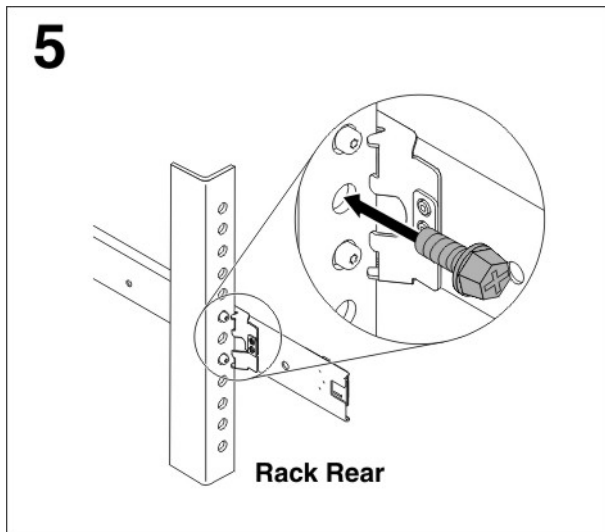
4 Attach the front rackmount bracket to the front of the rack.

Rotate the front latch to the open position and align the front end of the outer slide member against the holes on the front of the rack.

Line up the pins with holes in the EIA flanges and pull the slide forward so that the pins protrude through the holes.

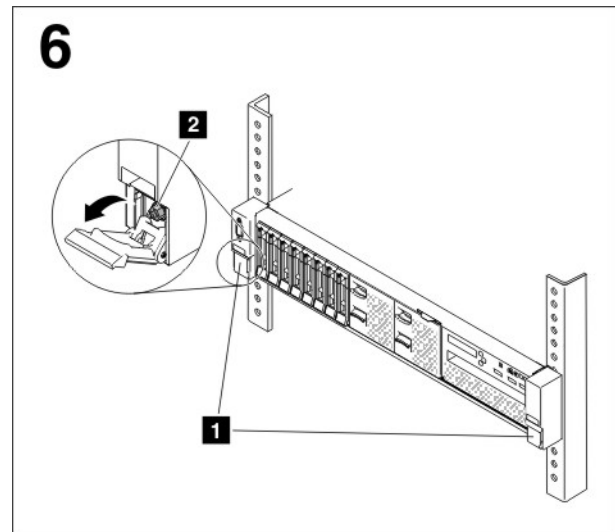
Lock the front of the slide by allowing the front latch to rotate to the closed position.

Repeat step 2, 3 and 4 for the other outer slide member.



Secure the cable management arm and the server in the rack for shipping if needed.

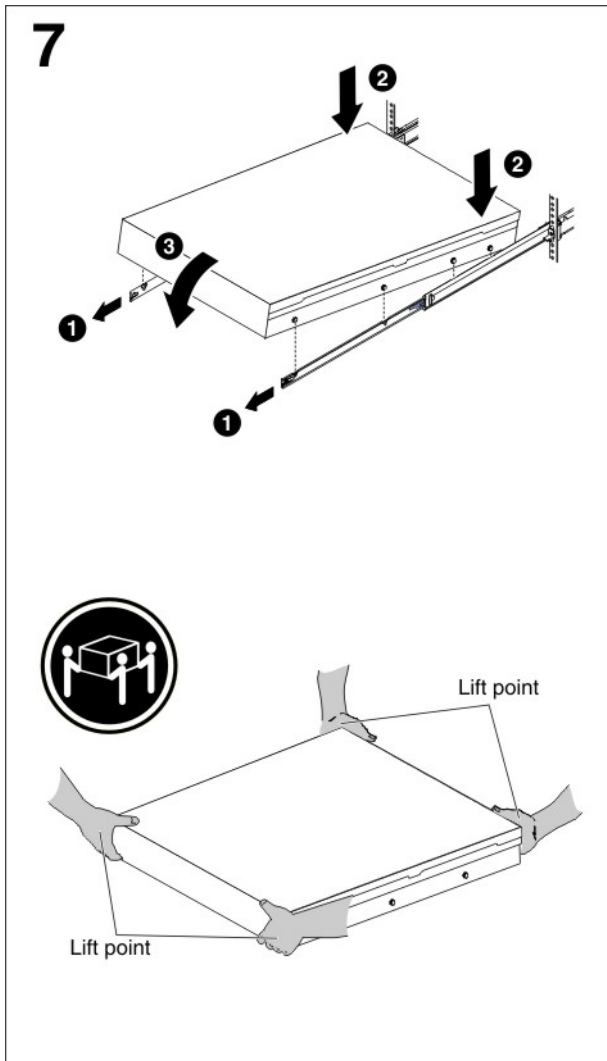
If you are shipping the rack with the system installed or if you are in a vibration-prone area, insert the M5 screws into the rear of the slides. Use a cable tie to secure the free end of the cable management arm to the rack if needed.



Tighten the front screws if needed.

Press on the release latches **1**. When you move the rack cabinet, or if you install the rack cabinet in a vibration-prone area, tighten the captive M5 screws **2** in the front of the server.

Note:

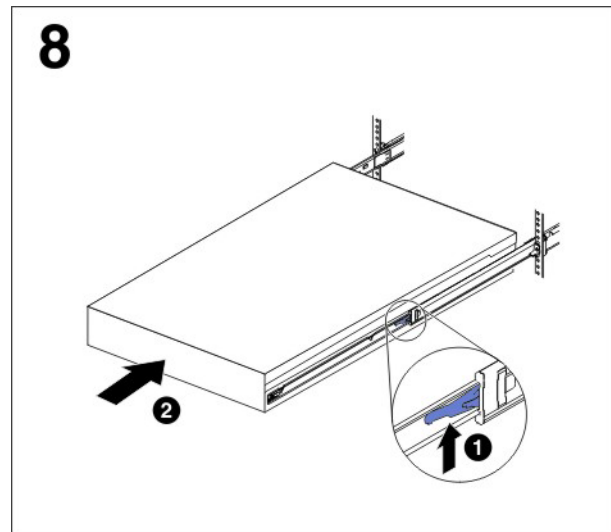


Install the server on the slides.

Notes:

1. Use safe practices while lifting.
2. If you are installing a 2U server, make sure that you have two people when lifting the server. Their hands should be positioned as illustrated.

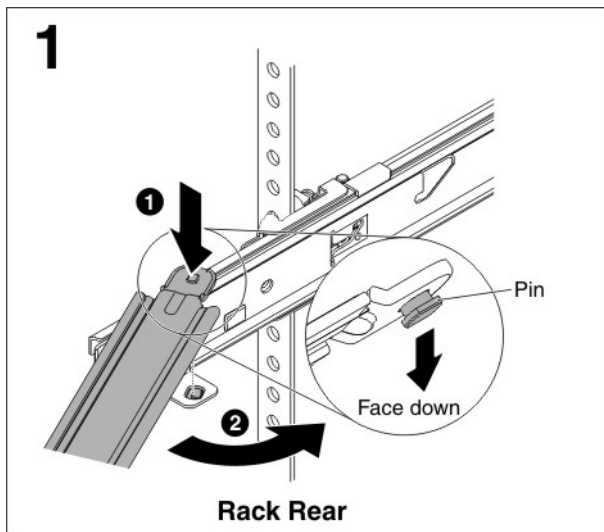
Pull the slides forward **1** until they click, two times, into place. Carefully lift the server and tilt it into position over the slides so that the rear railheads **2** on the server line up with the slots in the slides. Lower the server down until the rear railheads slide into the two rear slots, and then slowly lower the front of the server **3** until the other railheads go into the other slots on the slides. Make sure the front latch covers the front railhead so the system is secured to the slides.



Slide the server into the rack.

Lift the locking levers **1** on the slides and push the server **2** all the way into the rack until it clicks into place.

Installing Cable Management Arm

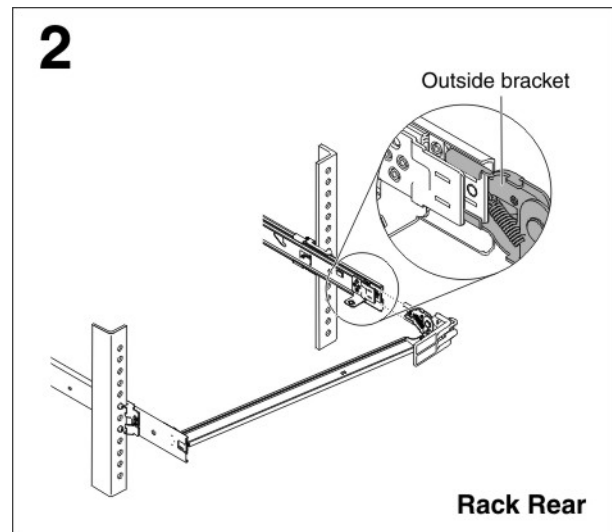


Install the cable management support arm.

Notes:

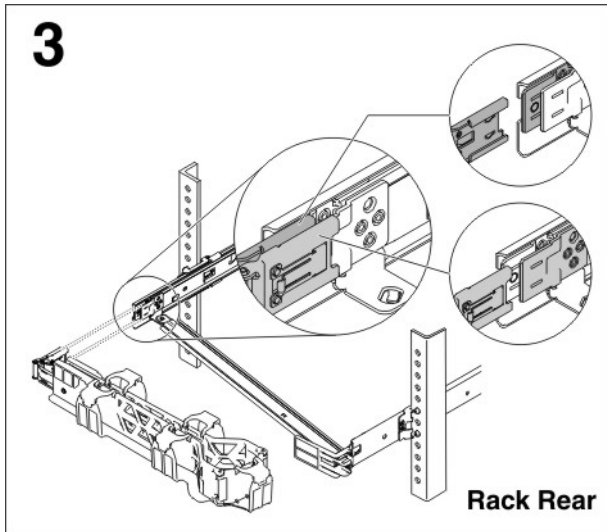
1. The cable management arm can be installed on either side of the server. It is best to install it so it hinges on the side opposite the power supplies to provide access to the power supplies. To install the cable management arm on the other side, follow the instructions in the **Appendix** section and install the hardware on the opposite side.
2. Make sure the cable management support bar must be on top of the slide tab in order to work correctly.

Place the pin down **1** into the horizontal slot on the rear of the slidrails. Then rotate the other end of the bar toward the rack **2**.



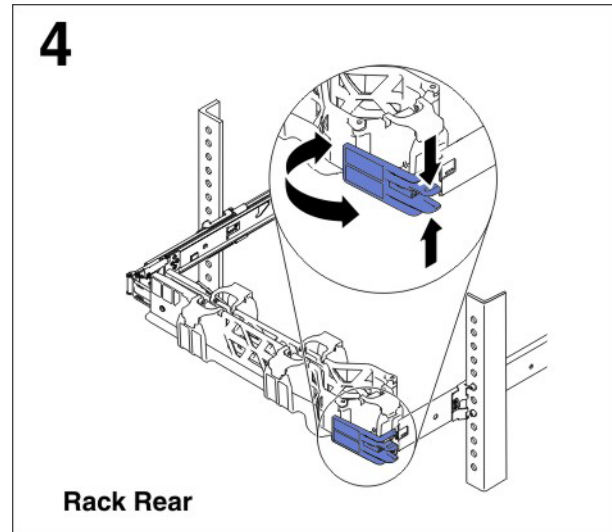
Connect the stop bracket to the slide.

The capital letters **O** is marked on cable management arm pins to identify the outside pins. Install the cable management stop bracket (with capital letter **O**) on the unattached end of the support arm. Make sure the support arm is securely installed.



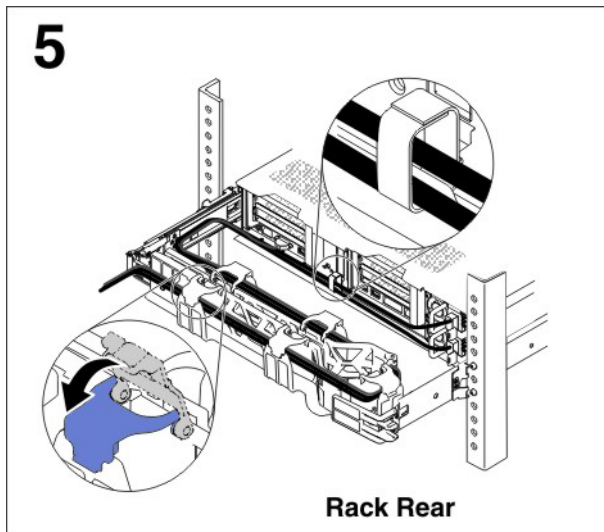
Install the cable management arm

Place the cable management arm on the support arm. Slide the cable management arm tabs into both the inside and the outside slots of the slide. Push the tabs until they snap into place.



Close the cable management support stop.

In order to make it easier to rotate the cable management arm on and off the cable management support bar, you can open the support stop by pushing the tabs above and below the cable management support.



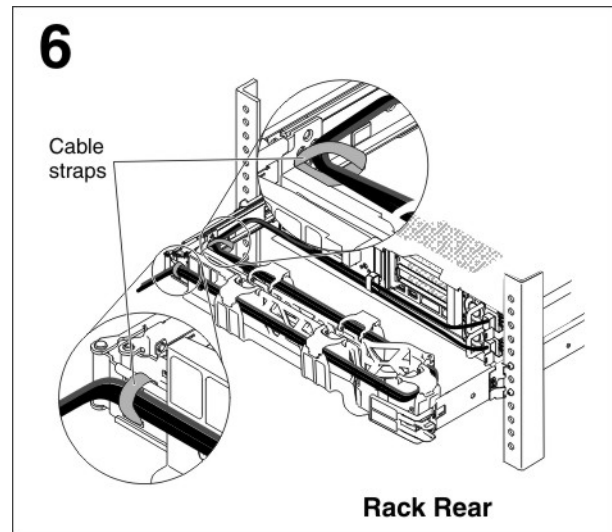
Connect and route the cables.

Notes:

1. The location of the cable straps may be slightly different in different systems.
2. Use the cable straps provided on the rear of the system to retain the cables and prevent them from sagging.

Attach the power cords and other cables to the rear of the server.

Route the cables and power cords on the cable management arm and secure them with cable ties or hook-and-loop fasteners.



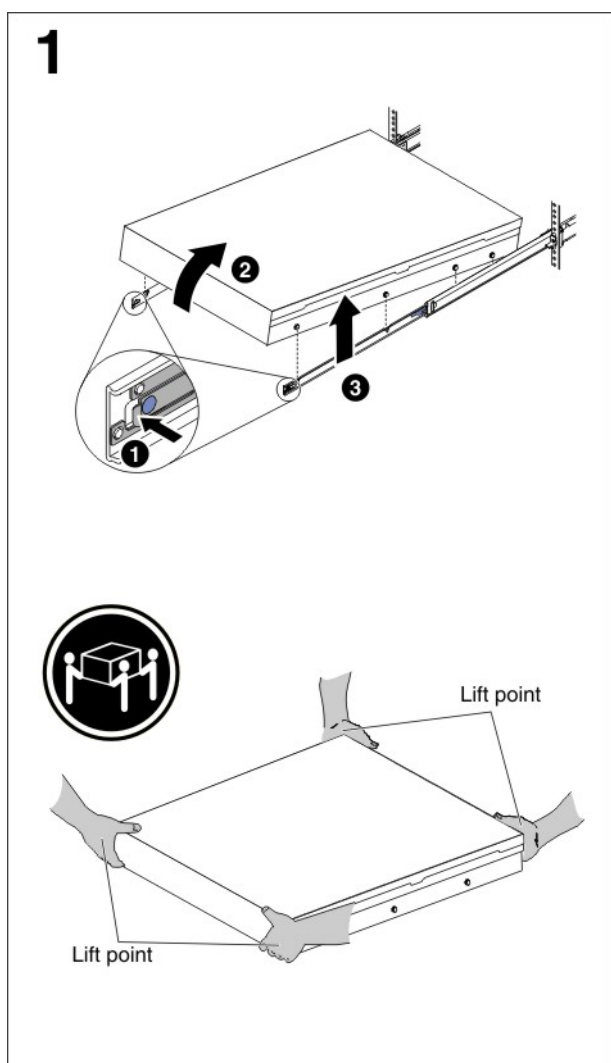
Secure the cables with the cable strap.

Cables must be bundled with the cable strap for proper movement of the cable management arm.

Notes:

1. Make sure the cables do not sag below the U space so they will not get caught on the lower systems.
2. Allow a little slack in all cables to avoid tension in the cables as the cable management arm moves.

Removing the server from the rack

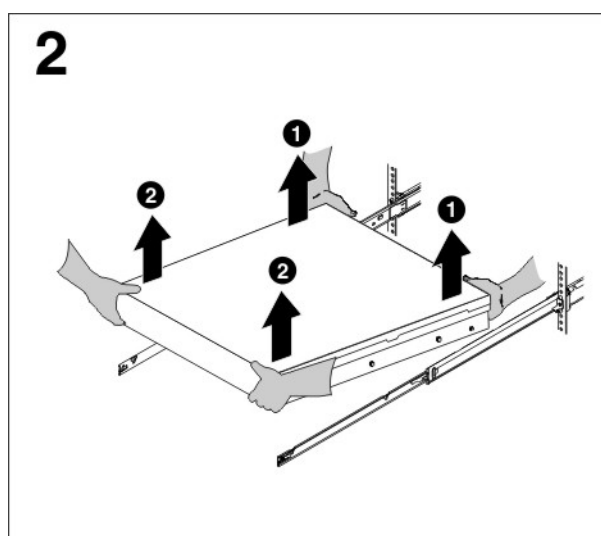


Unlatch and rotate the front of the server.

Note: If you are removing a 2U server, make sure that you have two people when lifting the server. Their hands should be positioned as illustrated.

To remove the server from the rack, disconnect the cables from the rear of the server. Remove the cable management arm by pulling the pins out while sliding the tabs out of the mounting location.

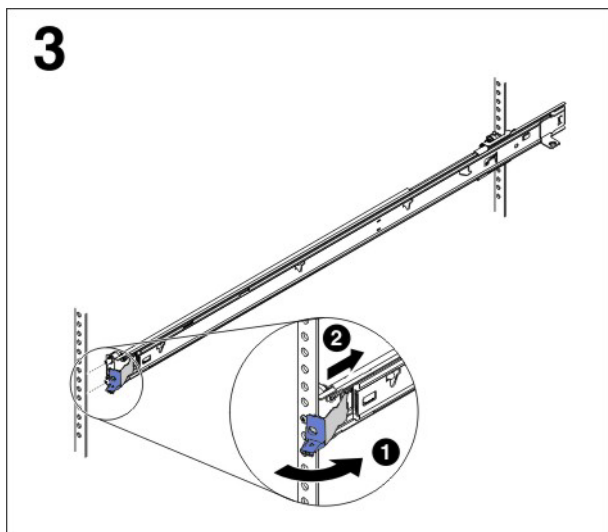
Press the locking levers **1**, while supporting the rear of the server, and lift the front of the server up slightly **2** to clear the nailhead **3** from the slot.



Lift the server off of the slides.

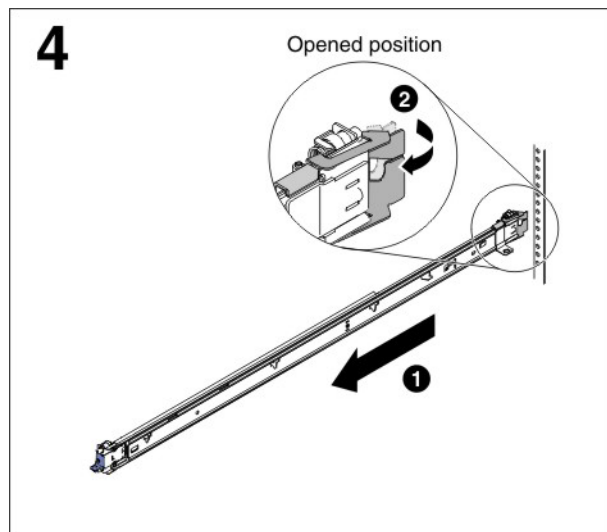
After the front nailheads clear the latches, lift up on the rear of the server to level the server. Lift the server out of the rack and place it on a sturdy surface.

Note: Use safe practices while lifting.



3
Unlatch the front rackmount bracket from the front of the rack.

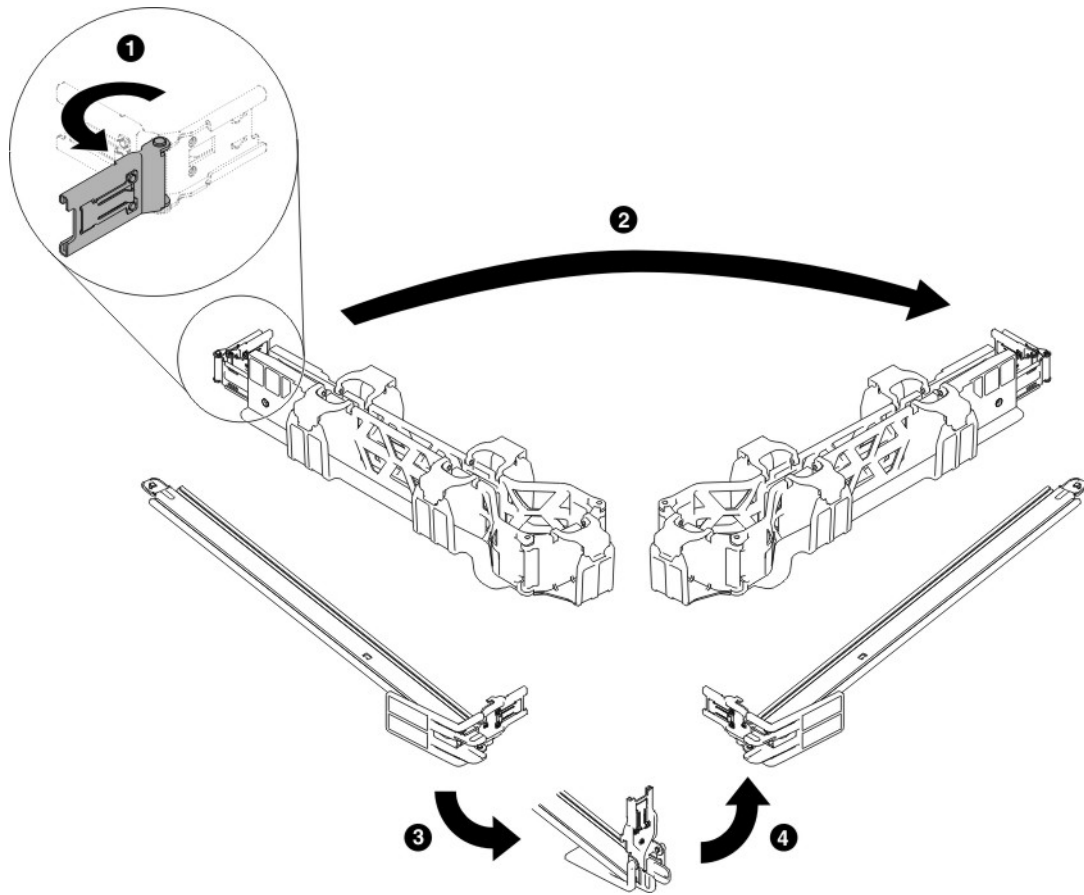
To disconnect the slides from the front of the rack, rotate the latch inward **1** and push the slide back **2**. Remove the slide from the rack.



4
Remove the rear end of the slides.

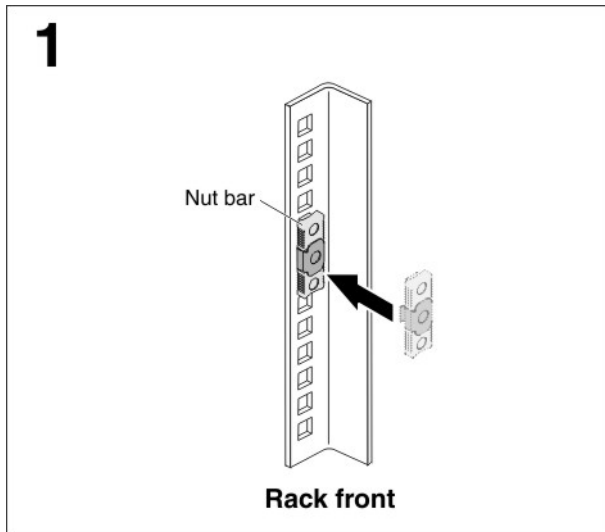
To disengage the slides from the rear of the rack, pull from the front of the slide forward to unlatch the rear hooks **1** and take the slides out of the rack **2**.

Appendix A: How to change the cable management arm support bar to install cable management arm on the right side of the rack.



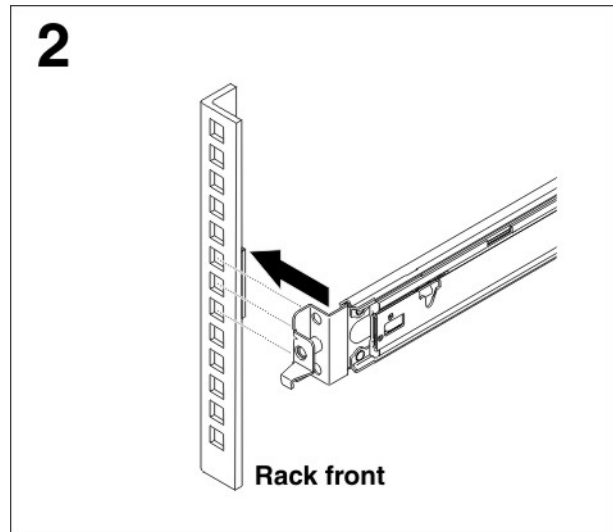
To allow the cable management arm to be installed on the right side of the rack (as viewed from the rear), the stop bracket on the end of the support bar must be rotated to allow the part to be installed on the right slide.

Appendix B: To install Rack with Square Hole 9.5mm for System X Gen-II Universal Slides Kit



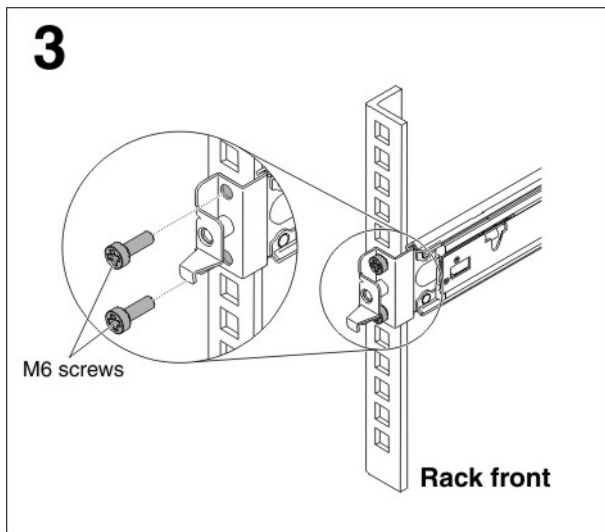
Identify rack space for the nut bar

Select an available space (depending on the server you are installing) in the rack to install your server. Place the nut bar on the selected space of the rack.



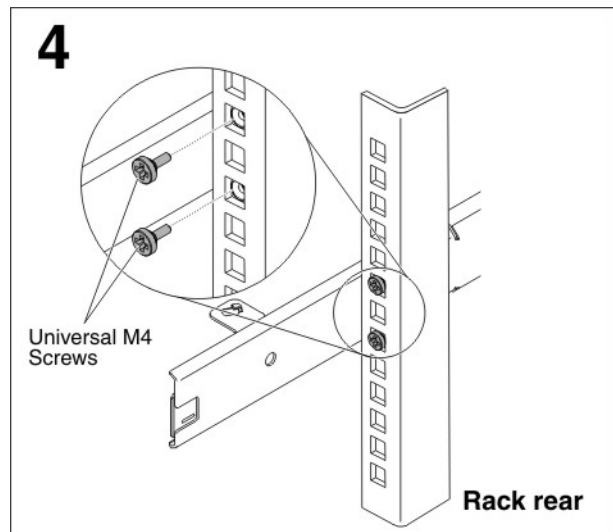
Attach the front of the slide to the nut bar on the rack

Line up the pin hole of the front slide to the nut bar you just placed on the rack.



Secure the front of the slide on the rack

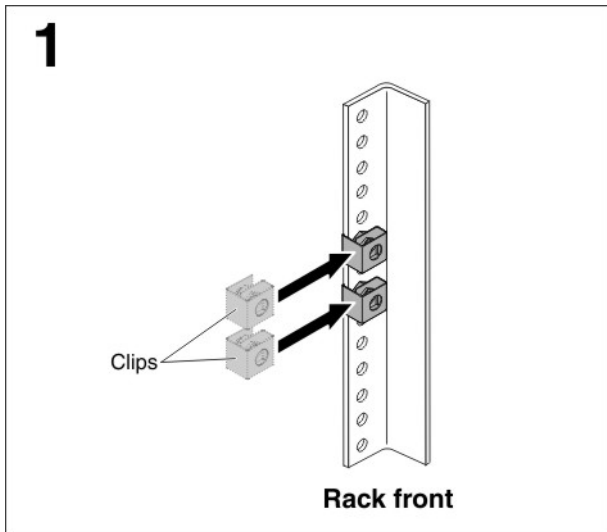
Insert the M6 screws to the front of the rack to secure the front of the slide you just attached.



Secure the rear of the slide on the rack

Insert the Universal M4 screws to the rear of the rack to secure the rear of the slide.

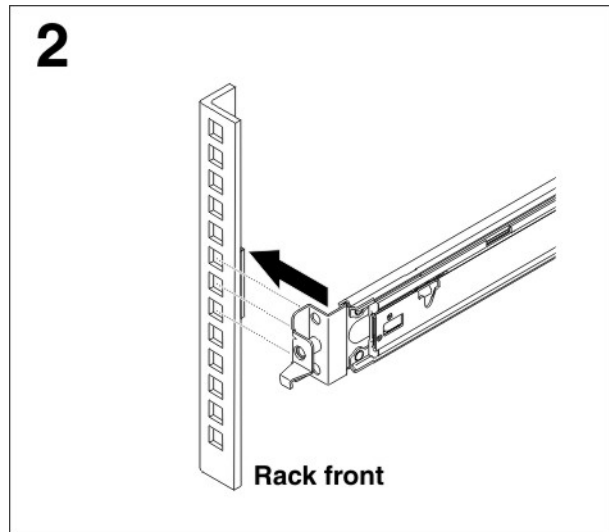
Appendix C: To install Rack with Hole 7.1mm for System X Gen-II Universal Slides Kit



Identify rack space for the clips

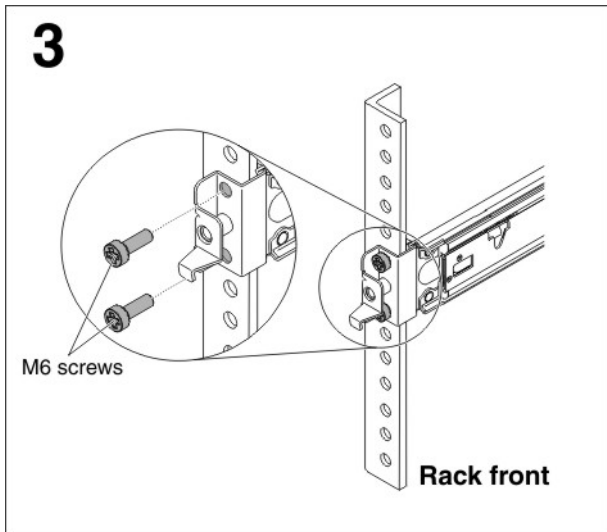
Select an available space (depending on the server you are installing) in the rack to install your server.

Place the clips on the selected space of the rack.



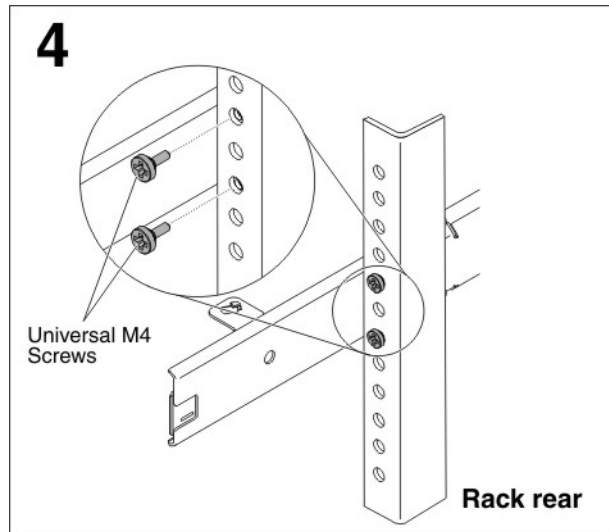
Attach the front of the slide to the clips on the rack

Line up the pin hole of the front slide to the clips you just placed on the rack.



Secure the front of the slide on the rack

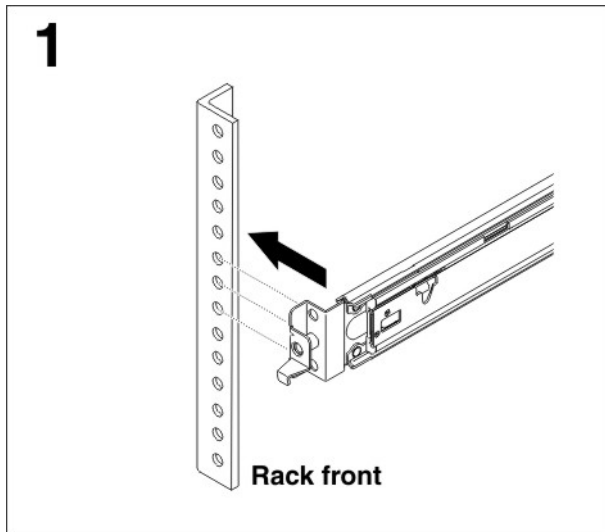
Insert the M6 screws to the front of the rack to secure the front of the slide you just attached.



Secure the rear of the slide on the rack

Insert the Universal M4 screws to the rear of the rack to secure the rear of the slide.

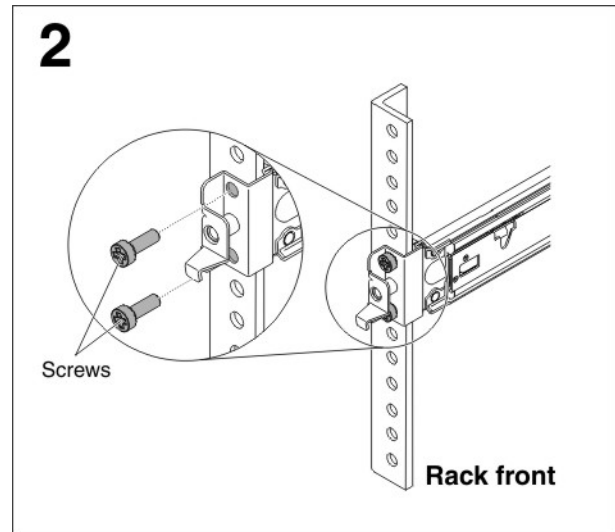
Appendix D: To install Rack with Hole #10-32 for System X Gen-II Universal Slides Kit



Attach the front of the slide to the clips on the rack

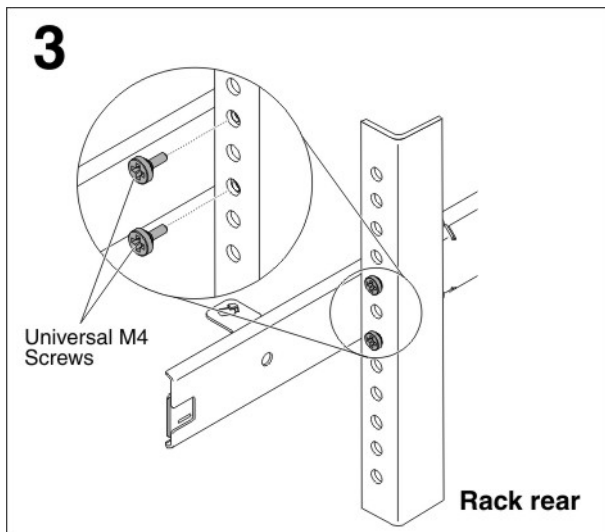
Select an available space (depending on the server you are installing) in the rack to install your server.

Line up the pin hole of the front slide to the selected space on the rack.



Secure the front of the slide on the rack

Insert the M6 or #12-24 screws to the front of the slide you just attached and secure it on the front of the rack.



Secure the rear of the slide on the rack

Insert the Universal M4 screws to the rear of the rack to secure the rear of the slide

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