

Installing the 7063-CR1 into a rack

IBM

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Installing the 7063-CR1 into a rack

Learn how to install the 7063-CR1 Hardware Management Console (HMC) into a rack.

Prerequisites for installing the rack-mounted 7063-CR1 system

Use the information to understand the prerequisites that are required for installing the system.

You might need to read the following documents before you install the server:

- The latest version of this document is maintained online, see *Installing the 7063-CR1 into a rack* (http://www.ibm.com/support/knowledgecenter/POWER8/p8hai/p8hai_install7063_kickoff.htm).
- To plan your server installation, see *Planning for the system* (http://www.ibm.com/support/knowledgecenter/POWER8/p8had/p8had_8xx_kickoff.htm).

Ensure that you have the following items before starting your installation:

- Phillips screwdriver
- Flat-head screwdriver
- Box cutter
- Electrostatic discharge (ESD) wrist strap
- Rack with two Electronic Industries Association (EIA) units (2U) of space

Note: If you do not have a rack that is installed, install the rack. For instructions, see *Racks and rack features* (http://www.ibm.com/support/knowledgecenter/POWER8/p8hbf/p8hbf_8xx_kickoff.htm).

Completing inventory for your system

Use this information to complete inventory for your system.

1. Verify that you received all the boxes you ordered.
2. Unpack the server components as needed.
3. Complete a parts inventory before you install each server component by following these steps:
 - a. Locate the inventory list for your server.
 - b. Ensure that you received all the parts that you ordered.

Note: Your order information is included with your product. You can also obtain order information from your marketing representative or the IBM® Business Partner.

If you have incorrect, missing, or damaged parts, consult any of the following resources:

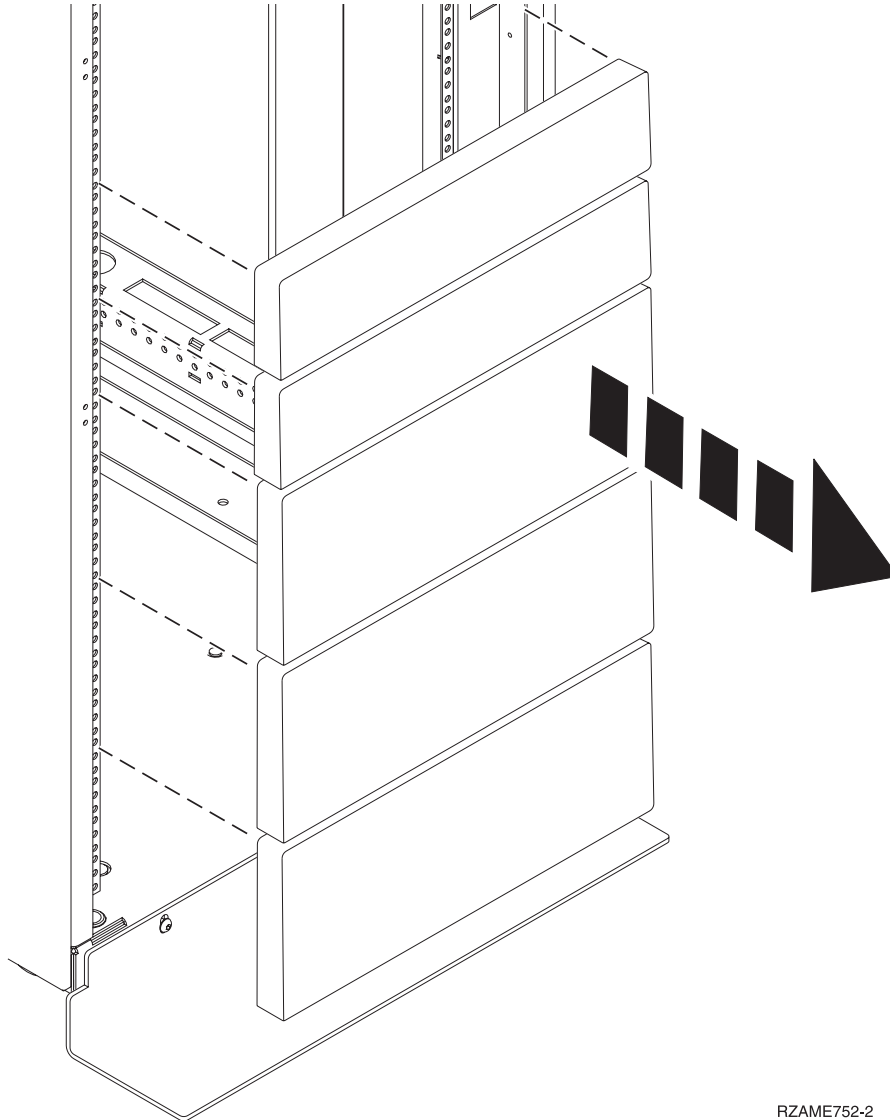
- Your IBM reseller.
- IBM Rochester manufacturing automated information line at 1-800-300-8751 (United States only).
- The Directory of worldwide contacts website <http://www.ibm.com/planetwide>. Select your location to view the service and support contact information.

Determining and marking the location in the rack for the 7063-CR1 system

You might need to determine where to install the system unit into the rack.

1. Read the Rack safety notices (<http://www.ibm.com/support/knowledgecenter/POWER8/p8hbf/racksafety.htm>).

2. Determine where to place the system unit in the rack. As you plan for installing the system unit in a rack, consider the following information:
 - Organize larger and heavier units into the lower part of the rack.
 - Plan to install units into the lower part of the rack first.
 - Record the Electronic Industries Alliance (EIA) locations in your plan.
3. If necessary, remove the filler panels to allow access to the inside of the rack enclosure where you plan to place the unit, as shown in Figure 1.



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Figure 1. Removing the filler panels

4. Determine to place the system in the rack. Record the EIA location.
5. Facing the front of the rack and working from the right side, use tape, a marker, or pencil to mark the lower hole of each EIA unit.
6. Repeat step 5 for the corresponding holes located on the left side of the rack.
7. Go to the rear of the rack.
8. On the right side, find the EIA unit that corresponds to the bottom EIA unit marked on the front of the rack.

9. Mark the bottom EIA unit.
10. Mark the corresponding holes on the left side of the rack.

Installing the HMC into the rack using the fixed rails

If you are installing the 7063-CR1 HMC into the rack using the fixed rails, complete the following tasks.

Attaching the fixed rails to the system chassis and to the rack

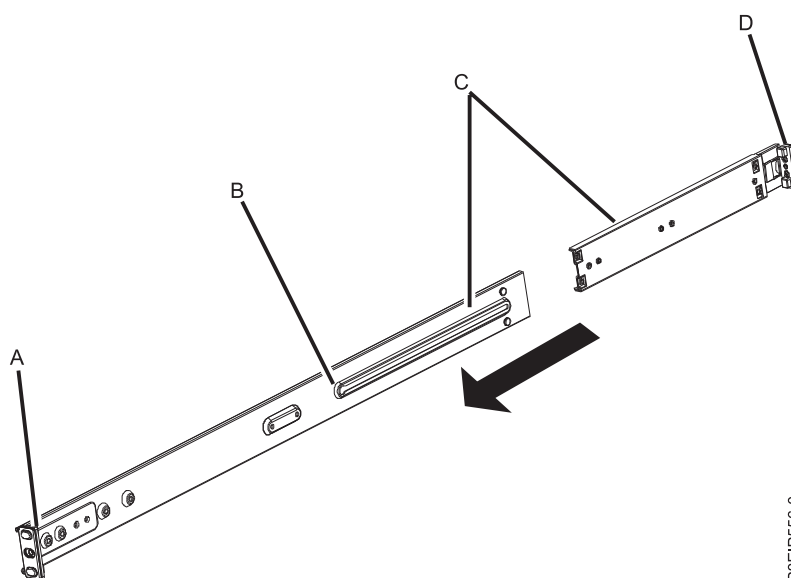
You must install the rails onto the chassis and into the rack. Use this procedure to perform this task.

Attention: To avoid rail failure and potential danger to yourself and to the unit, ensure that you have the correct rails and fittings for your rack. If your rack has square support flange holes or screw-thread support flange holes, ensure that the rails and fittings match the support flange holes that are used on your rack. Do not install mismatched hardware by using washers or spacers. If you do not have the correct rails and fittings for your rack, contact your IBM reseller.

Note: The system requires 1 EIA rack unit (1U) of space.

Ensure that you have the necessary parts to install the rails. The following parts are included with the rail kit:

- Slide rail screws, used to attach the two parts of each slide rail
 - Slide rail rack screws, used to secure the rails to the rack
 - Rails
 - 10 - 32 x 0.635 cm (0.25 in.) screws, used to attach the rails to system chassis
1. Remove the rail pieces from the packaging and put them on a work surface.
 2. Connect the two parts of each rack slide rail. To connect the two parts of the rack slide rail, perform the following tasks:
 - a. Identify the two pieces of the left rack slide rail. Align the short and long pieces (C). Ensure that the rack rail pins are pointing in the same direction (A) and (D).



- b. The shorter piece of the rack slide rail has a metal pin. Insert the pin into the hole in the longer piece of the rack slide rail (B). Slide the shorter piece of the rack rail into the longer piece of the rack rail.
- c. Align the holes in the two pieces of the rack slide rails. Using a Philips-head screwdriver, attach the two parts by loosely screwing two rail screws through the holes in the rack slide rail.

Note: Do not tighten the rack slide rail screws.

- d. Repeat these steps for the right slide rail.
3. Attach the chassis rails to the system chassis. To attach the chassis rails to the system chassis, perform the following tasks:
 - a. On the left side of the system, align the metal tabs on the left side of the system chassis with the square holes on the left chassis slide rail. Slide the chassis slide rail toward the front of the rack until the chassis slide rail clicks into place.
 - b. Attach the system chassis slide rail to the system chassis by screwing in the two screws that were supplied in the rail kit.
 - c. Repeat for the chassis slide rail on the right side of the system.
4. Install the rack slide rails into the rack.
 - a. Move to the front of the rack.
 - b. Select the left rack slide rail, and locate the EIA unit that you previously marked. Each slide rail is also marked **Back**, to designate the rear of the rack. Ensure that you are holding the front end of the rack slide rail.
 - c. Extend the rail from the front of the rack to the back of the rack and align the rack slide rail pins with the holes in the rack flange that you previously marked.
 - d. Push the rack rail pins into the rear rack flange until the rear rack rail latch clicks into place.
 - e. Pull the front of the rack rail toward the front of the rack rail flange. Align the slide rail pins with the holes in the rail flange and pull them until the rail latch clicks into place.
 - f. Using a screwdriver, tighten the rail screws that you installed in step 2.
 - g. Repeat steps 4a - 4f for the right slide rail.
5. Secure the rails to the rack.
 - a. Move to the rear of the rack.
 - b. Slide each washer onto to each of the longer screws that is included with the rail kit.
 - c. Screw a screw and washer through the middle hole of each rail on each side of the rear of the rack.

Installing the system into the rack and connecting and routing power cables

After you install the system onto the rails in the rack, connect and route power cables.

Note: This system requires two people to install the system into the rack.

1. Remove the protective plastic film from the top of the system chassis.
2. Move to the front of the rack.
3. Using two people, lift the system and align the system chassis rails on each side of the chassis with the rack slide rails.
4. While one person is supporting the weight of the system, have the second person gently push the system into the rack, until you hear each slide rail click into place.
5. Push the system toward the rear of the rack until the system.
6. Secure the system to the rack by screwing a screw through the handles on each side of the system chassis.
7. Plug the power cords into the power supplies.

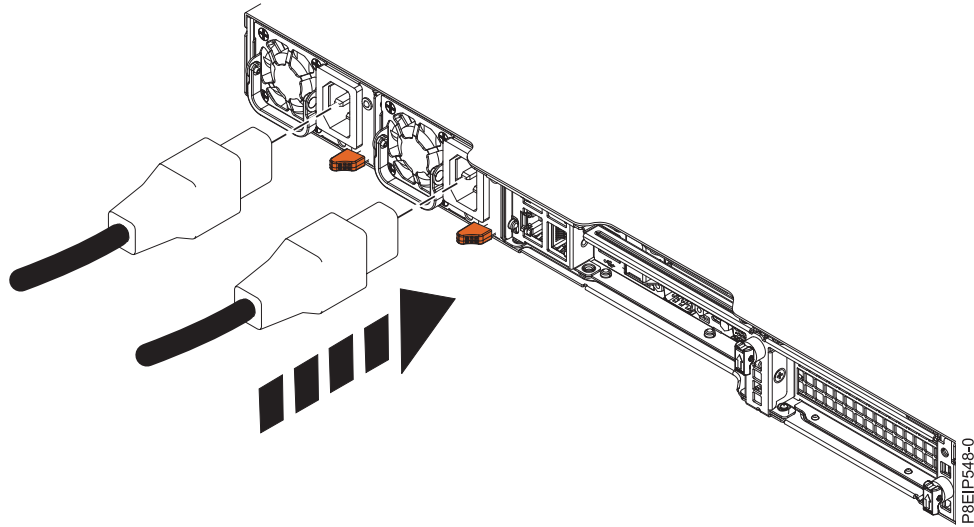


Figure 2. Plugging the power cords into the power supplies

8. Attach all cables to the rear of the server.

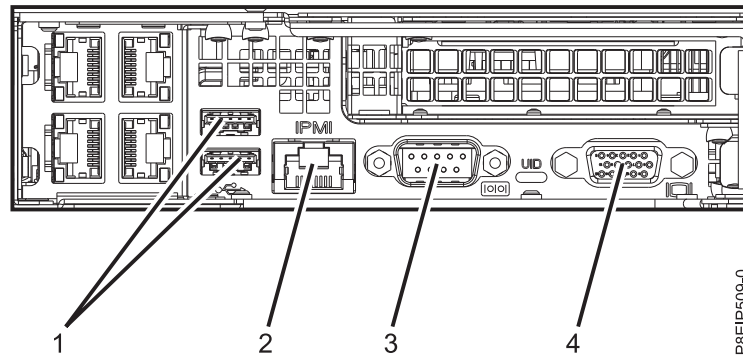


Figure 3. Rear ports

Table 1. Input and output ports

Identifier	Description
1	USB 2.0 used for keyboard and mouse
2	Ethernet Intelligent Platform Management Interface (IPMI)
3	Serial IPMI
4	Video Graphics Array (VGA) used for monitor. Only the 1024 x 768 at 60 Hz VGA setting is supported. Only up to a 3-meter cable is supported. Text based capability is only supported at this time.

9. Plug the system power cords and the power cords for any other attached devices into the alternating current (AC) power source.
10. Continue with Configuring the HMC by using the HMC Enhanced+ interface.

Installing the HMC into the rack using the slide rails

If you are installing the HMC into the rack using the slide rails, complete the following tasks.

Attaching slide rails to the system and rack

Attach slide rails to the system and then to the rack.

Attention: To avoid rail failure and potential danger to yourself and to the unit, ensure that you have the correct rails and fittings for your rack. If your rack has square support flange holes or screw-thread support flange holes, ensure that the rails and fittings match the support flange holes that are used on your rack. Do not install mismatched hardware by using washers or spacers. If you do not have the correct rails and fittings for your rack, contact your IBM reseller.

The slide rails arrive fully assembled. To install the slide rails into the rack, you must disassemble the slide rails into four pieces.

1. Remove the lower direct-access storage device (DASD) backplane screw on either side so that you can service the backplane at a later date without removing the system from the rack.

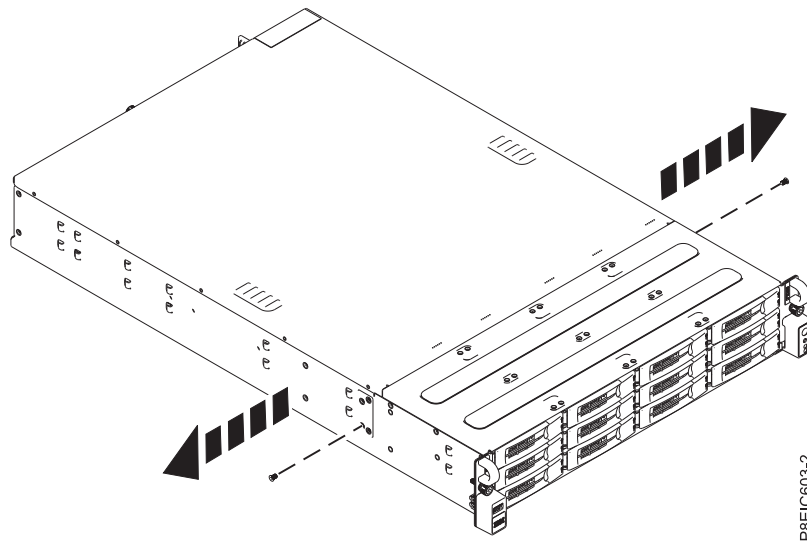
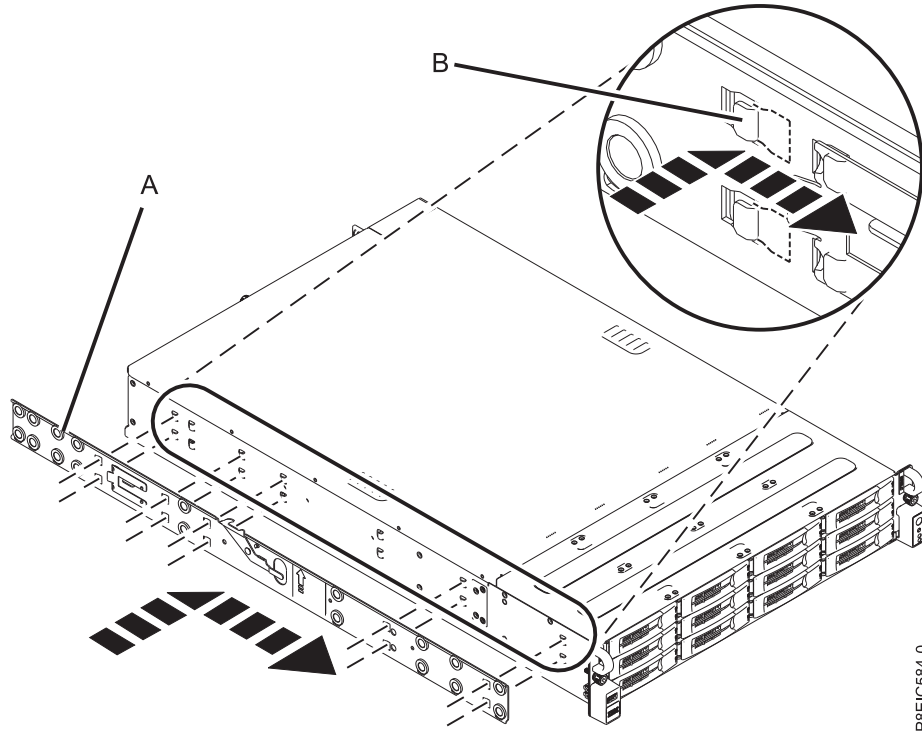


Figure 4. Removing the DASD backplane screws

2. Attach the system chassis slide rails to each side of the system chassis. At the rear of the system chassis, align the tabs on the system chassis (**B**) with the slots on the slide rail (**A**). Push the chassis slide rail forward so that the slam latch clicks into place.

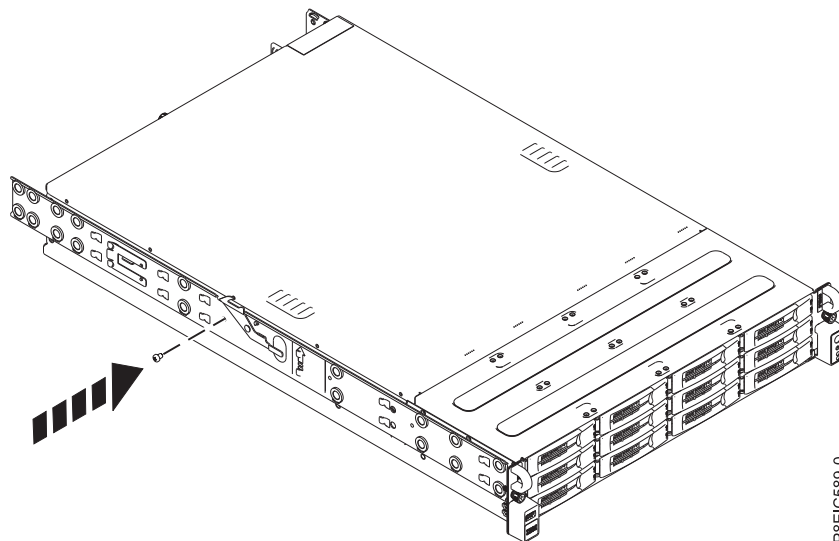
Note: The system rails are marked with an **L**, to designate the left system rail, and an **R**, to designate the right system rail from the front of the system.



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Figure 5. Attaching the chassis slide rail to the chassis on the left side of the system

3. Install the retention screw on each system chassis slide rail to further attach the slide rail to the system chassis.

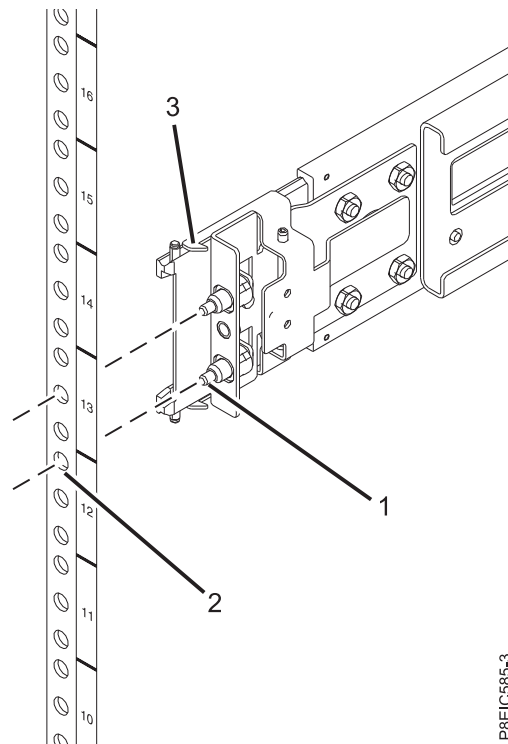


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Figure 6. Attaching the chassis rail retention screw to the chassis on the left side of the system

4. Next, install the rack slide rails into the rack. Each rack slide rail is marked with either an **R** (right) or an **L** (left), when you look from the front. Select the right slide rail, bring it to the front of the rack, and locate the selected EIA unit.
5. From the front of the rack, insert the pins on the front of the slide rail **(1)** into the holes on the front of the rack that you previously marked **(2)**. Pull the rail forward so that the rail spring clip **(3)** latches

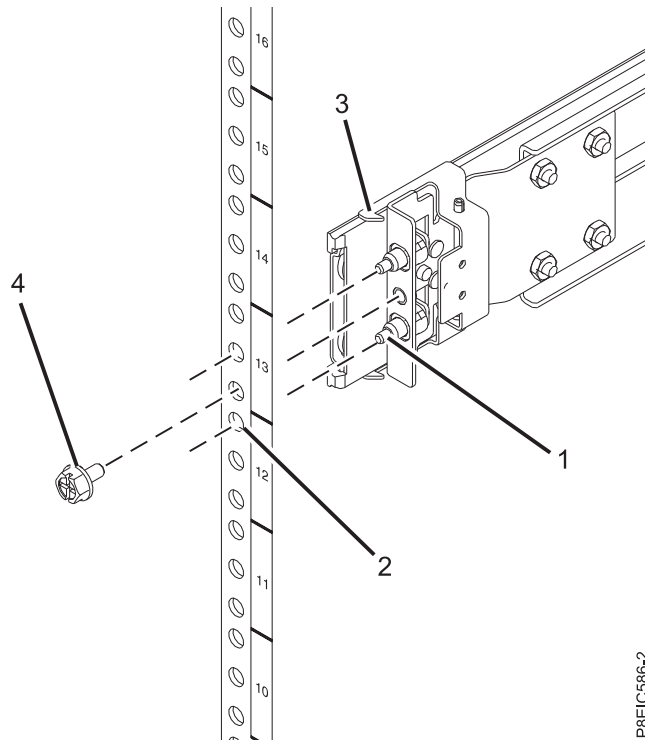
to the rail flanges and clicks into place.



P8EIC585-3

Figure 7. Installing the slide rail from the front of the rack

6. Repeat steps 3 and 4 for the left rail.
7. Move to the rear of the rack. Pull the slide rail toward you to insert the two pins (1) into the rack holes (2). Pull the rail until the rail spring clip (3) clicks into place. Install the screw (4) to secure the slide rail to the rack.



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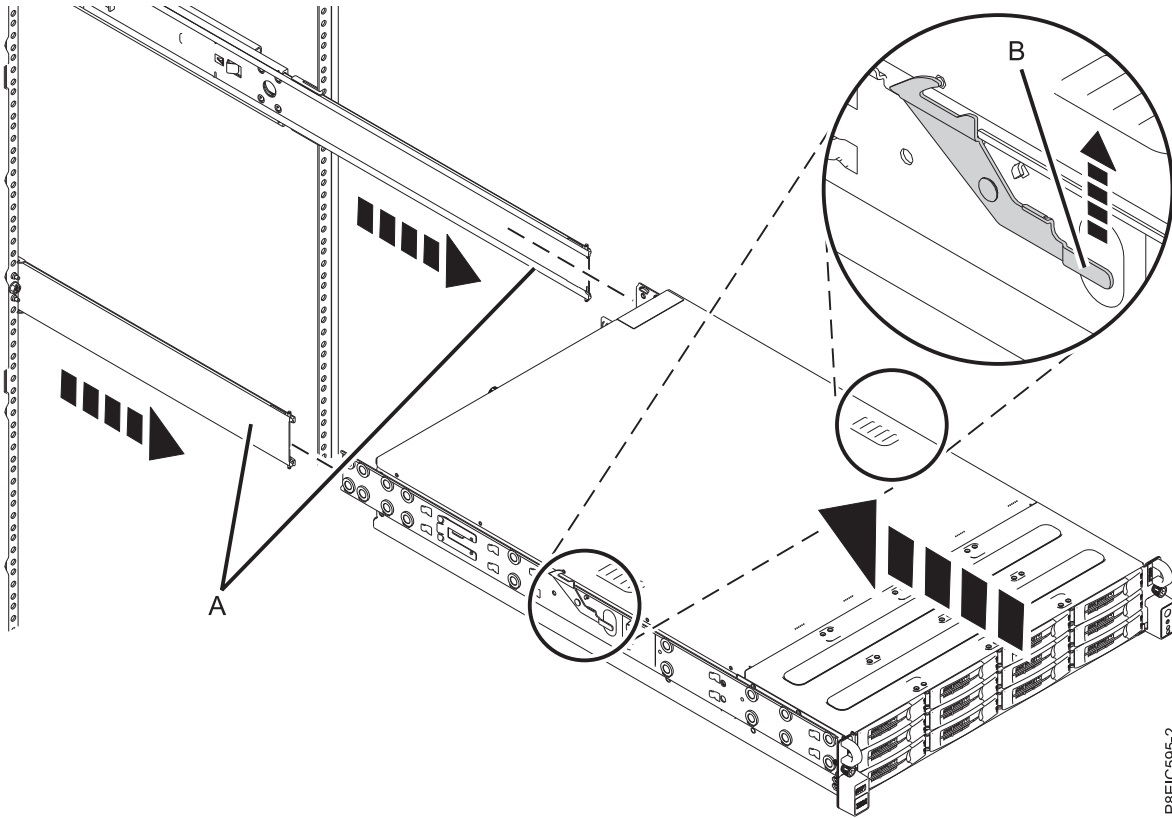
Figure 8. Installing the slide rail at the rear of the rack

Installing the system into the rack and connecting and routing power cables

After you install the system onto the rails in the rack, connect and route power cables.

Note: This system requires two people to install the system into the rack.

1. Fully extend the slide rails until the rails click into the service position (A).
2. Using two people, lift the system and align the lower roller pins on the chassis rails with the grooves in the rack slide rails on both sides.



P8EIC595-2

Figure 9. Aligning the lower roller pins on the chassis rails with the grooves in the rack slide rails

3. Simultaneously lift the latches on either side of the rack (**B**) that are marked with a green arrow.
4. Push the system into the rack.
5. Tighten the thumbscrews on either side of the system to secure the system to the rack.