

EVIDEN

BullSequana EXR & AI100R

Customer Service Guide

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Hardware

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**Eviden
30 bis rue du Nid de Pie
49000 Angers
FRANCE**

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Preface

This guide explains how to replace the Customer Replaceable Units (CRUs) of the server.

See The Bull support web site for the most up-to-date product information, documentation, firmware updates, software fixes and service offers:
<https://support.bull.com>

Important **ATTENTION: Please read carefully the safety instructions before you perform the procedures described in this manual. See the *Multilingual Safety Notices Guide* for translated versions of the safety notices.**

Intended Readers

This guide is intended for use by instructed or skilled personnel in charge of server and cabinet maintenance.

Chapter 1. Servicing a Power Supply Unit (PSU)

Important **ATTENTION:** Please read carefully the safety instructions before you perform the procedures described in this manual. See the *Multilingual Safety Notices Guide* for translated versions of the safety notices.



CAUTION C009

Cabinet doors must remain locked at all times except during maintenance operations.

Qualified personnel only are authorized to open the cabinet doors.



CAUTION C004

Static electricity can damage the server and other electronic devices.

To avoid damage, keep static-sensitive devices in their static-protective packages until you are ready to install them.

To reduce the possibility of damage from electrostatic discharge, observe the following precautions:

- Limit your movement. Movement can cause static electricity to build up around you.
- Wear an electrostatic-discharge wrist strap.
- Wear electrostatic-discharge gloves.
- Handle the device carefully, holding it by its edges or its frame.
- Do not solder joints, pins, or exposed circuitry.
- Do not leave the device where others can handle and damage it.
- While the device is still in its static-protective package, touch it to an unpainted metal surface on the outside of the server for at least 2 seconds. This drains static electricity from the package and from your body.
- Remove the device from its package and install it directly into the server without setting down the device. If it is necessary to set down the device, put it back into its static-protective package. Do not place the device on the server cover or on a metal surface.
- Take additional care when you handle devices during cold weather.
- Heating reduces indoor humidity and increases static electricity.

See Description Guide to locate the PSUs.

1.1. Removing a Power Supply Unit (PSU)

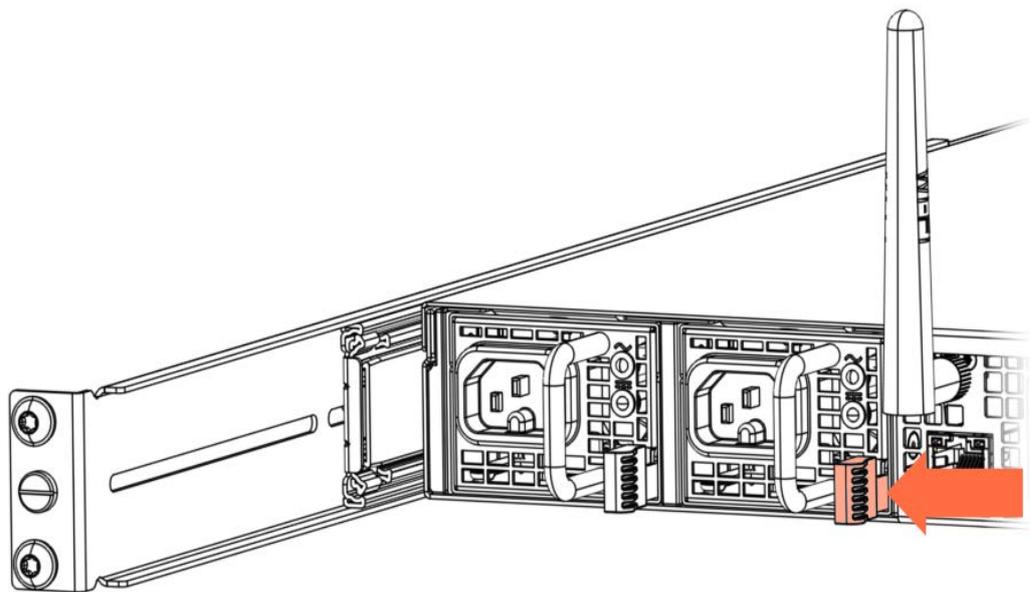
Important If redundancy rules are followed, a PSU is hot-pluggable. It can be replaced when the OS is running without causing any interruption in production.

Required tools

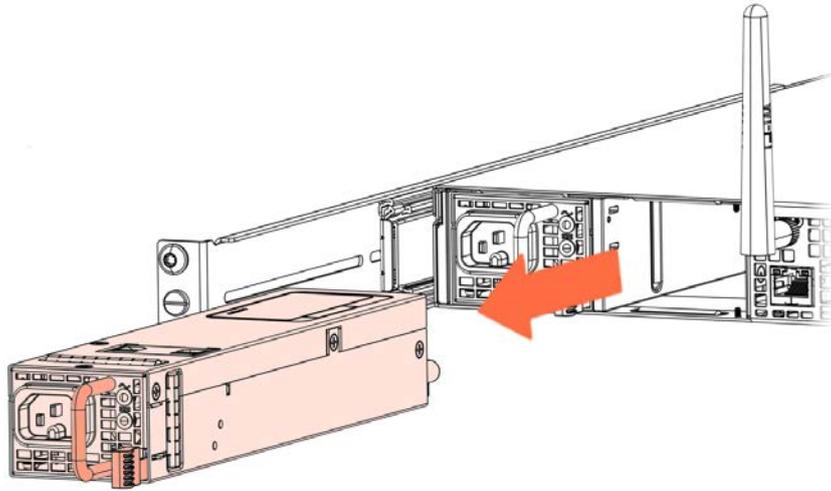
None

Procedure

1. **Unpack the new component on a clean ESD-protected work surface**
2. **Open the cabinet rear door**
3. **Disconnect the power supply cable**
4. **Remove the PSU**
 1. Push and hold the latch towards the left.



2. Take hold of the handle and remove the PSU.



1.2. Installing a Power Supply Unit (PSU)

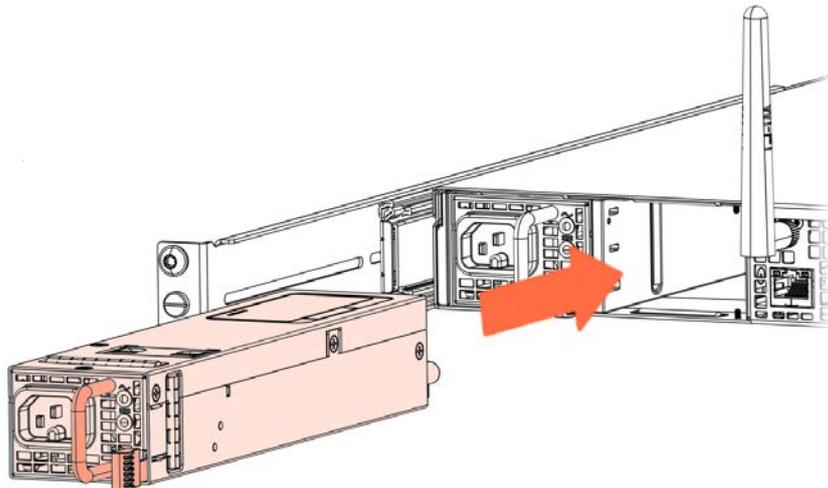
Important If redundancy rules are followed, a PSU is hot-pluggable. It can be replaced when the OS is running without causing any interruption in production.

Required tools

None

Procedure

- 1. Take hold of the new component**
- 2. Install the PSU**
 1. Check the PSU position.
 2. Insert the PSU using the handle, until it locks in position.



- 3. Reconnect the power supply cable**
- 4. Close the cabinet rear door**

Chapter 2. Servicing a 2.5 inch SATA disk

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- Limit your movement. Movement can cause static electricity to build up around you.
- Wear an electrostatic-discharge wrist strap.
- Wear electrostatic-discharge gloves.
- Handle the device carefully, holding it by its edges or its frame.
- Do not solder joints, pins, or exposed circuitry.
- Do not leave the device where others can handle and damage it.
- While the device is still in its static-protective package, touch it to an unpainted metal surface on the outside of the server for at least 2 seconds. This drains static electricity from the package and from your body.
- Remove the device from its package and install it directly into the server without setting down the device. If it is necessary to set down the device, put it back into its static-protective package. Do not place the device on the server cover or on a metal surface.
- Take additional care when you handle devices during cold weather.
- Heating reduces indoor humidity and increases static electricity.

See Description Guide to locate the disk.

2.1. Removing a 2.5 inch SATA disk

Important The 2.5 inch SATA disks are hot-pluggable.

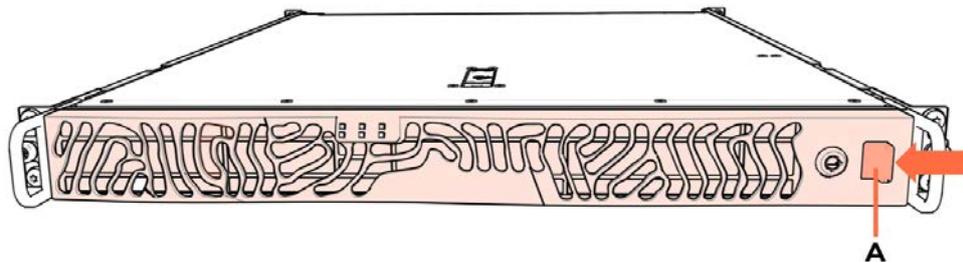
Required tools

T10 Torx screwdriver

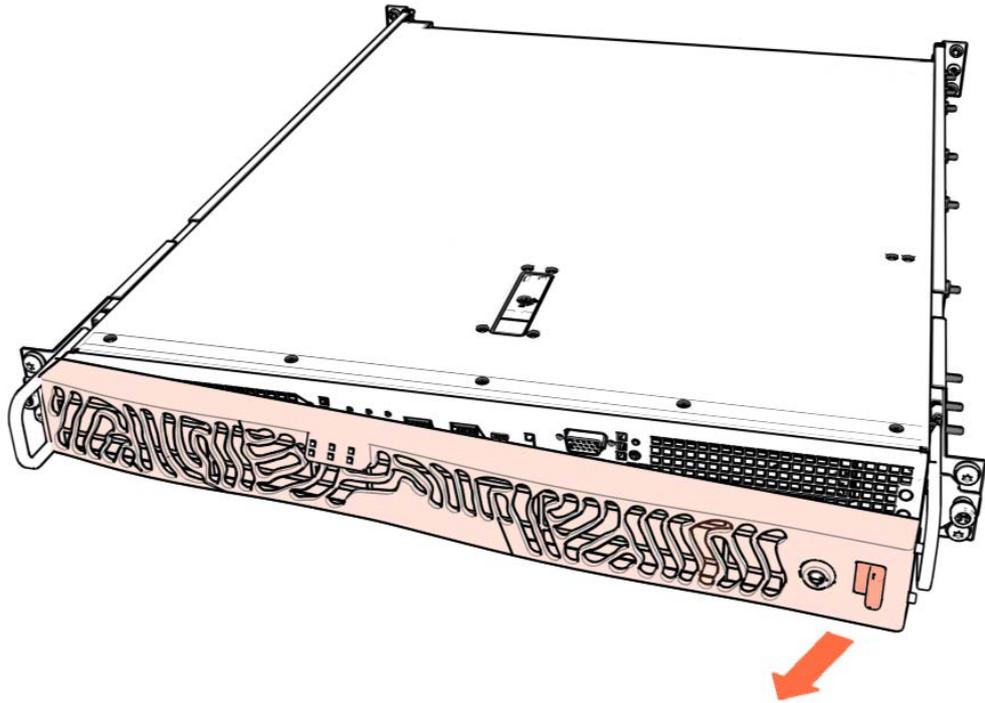
Procedure

1. **Unpack the new component on a clean ESD-protected work surface**
2. **Open the cabinet front door**
3. **Remove the bezel**
 1. Press the latch (A) to the left to unlock the bezel.

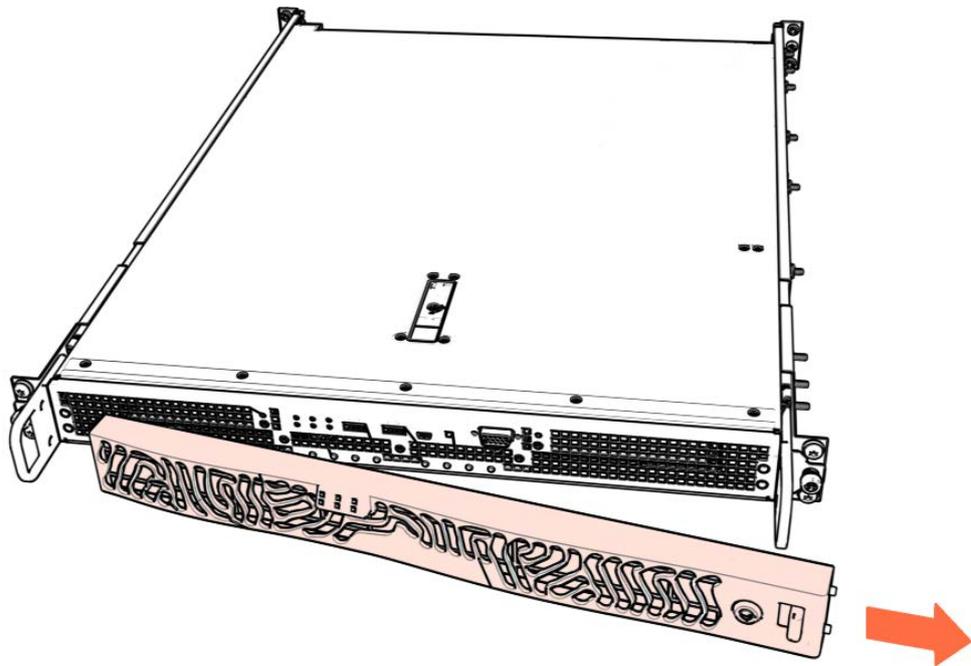
 **Front view**



2. Rotate the bezel slightly.

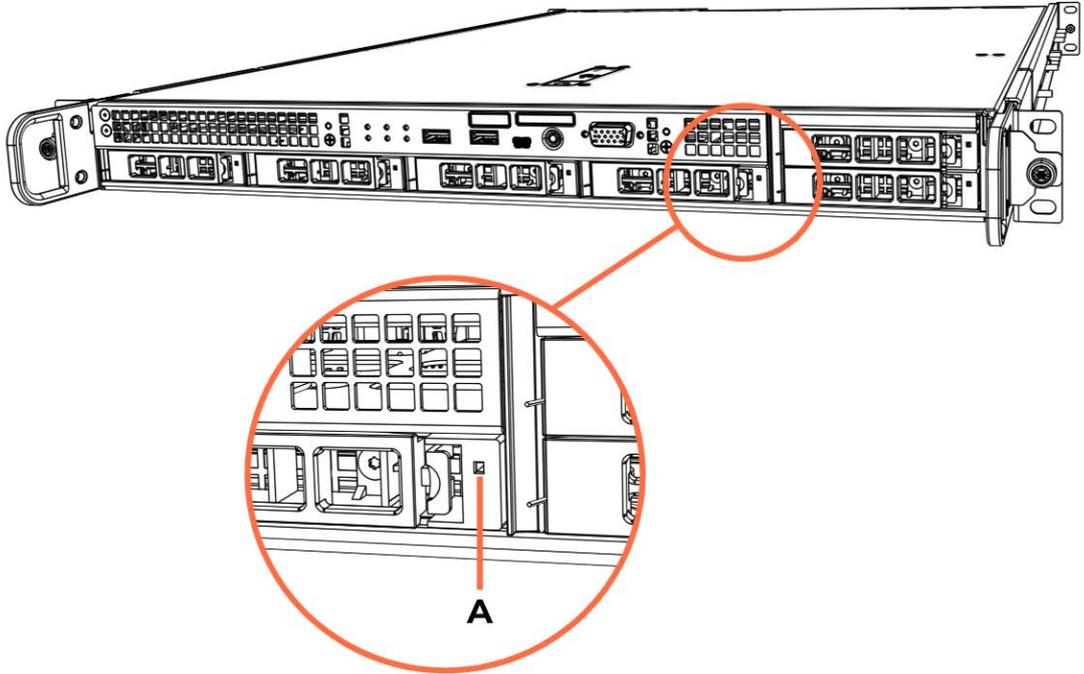


3. Remove the bezel from the left hand side of the server.



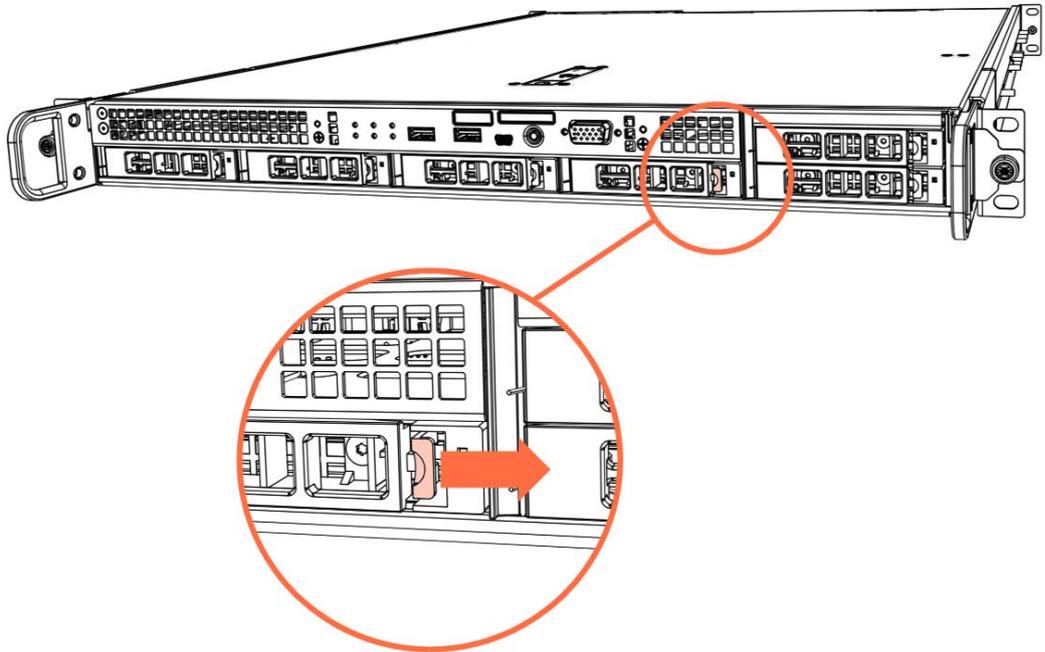
4. Check that the activity LED (A) of the disk is off

 Front view

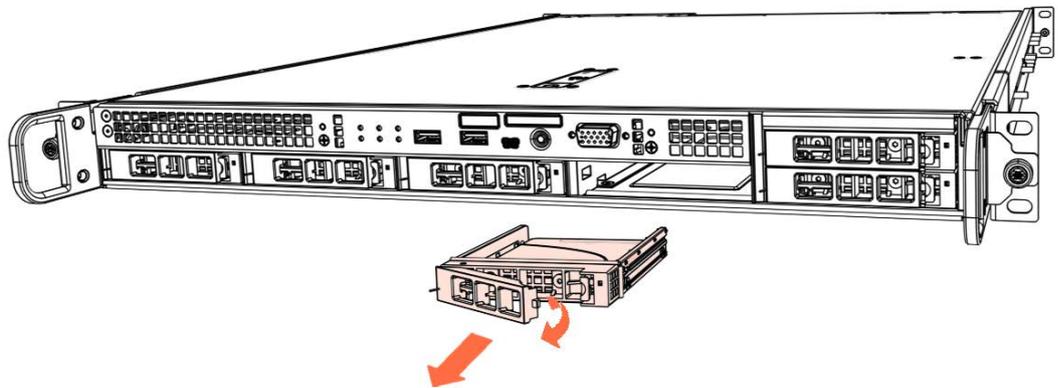


5. Remove the 2.5 inch SATA disk assembly

1. Push the latch to the right to unlock the disk.

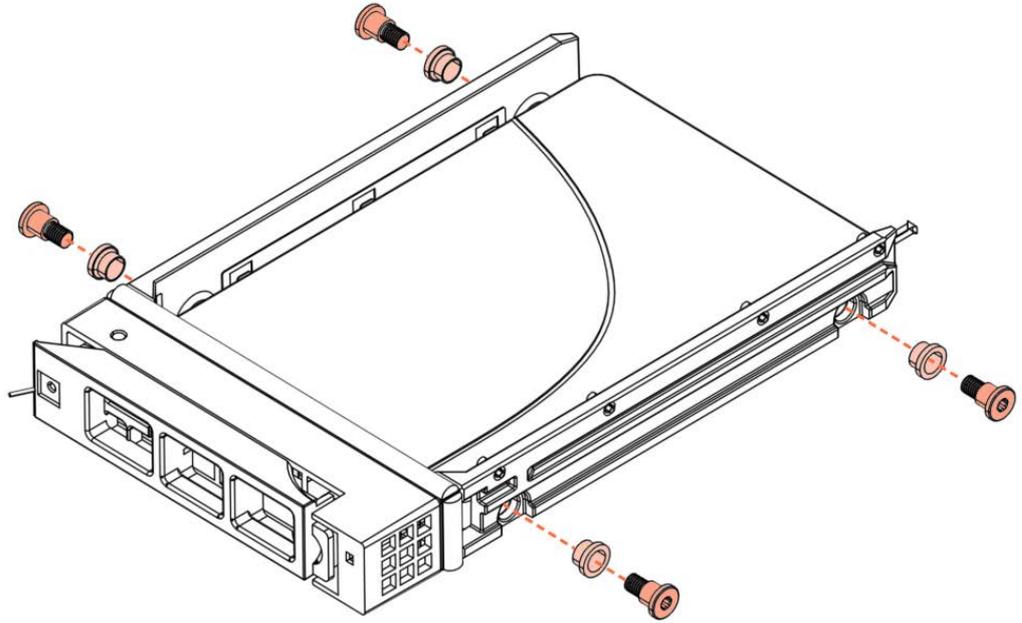


2. Take hold of the handle and remove the disk.

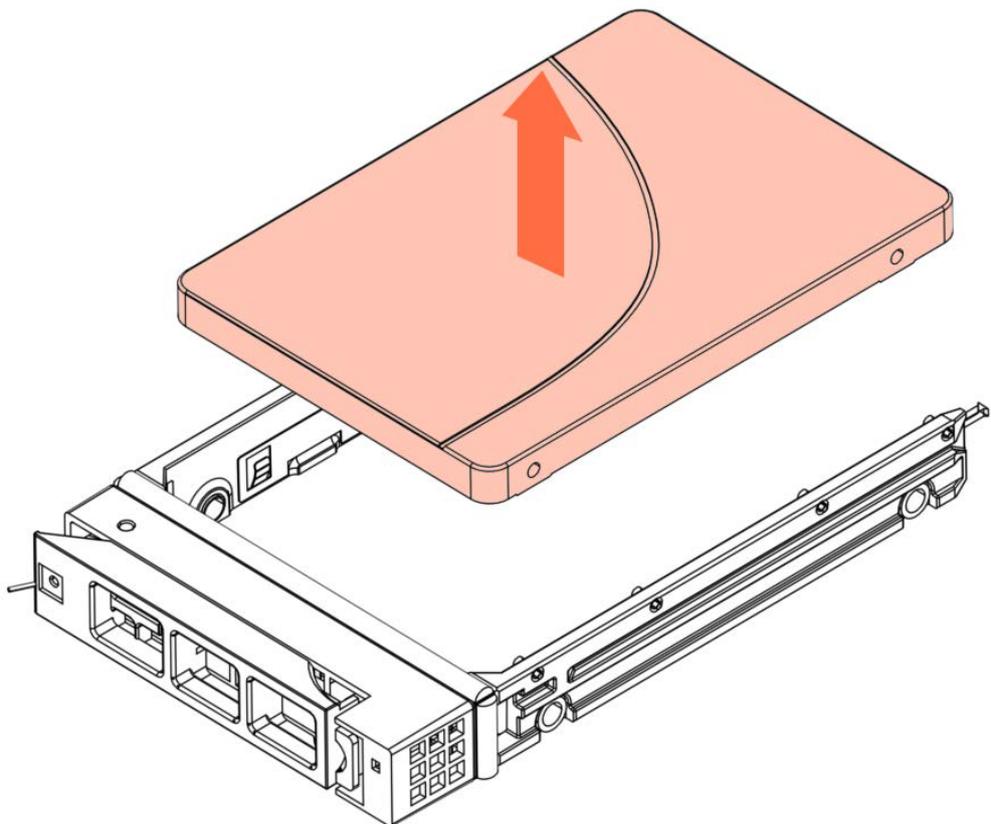


6. Remove the disk from its cage

1. Remove the screws and the rubber grommets.



2. Lift the disk up.



2.2. Installing a 2.5 inch SATA disk

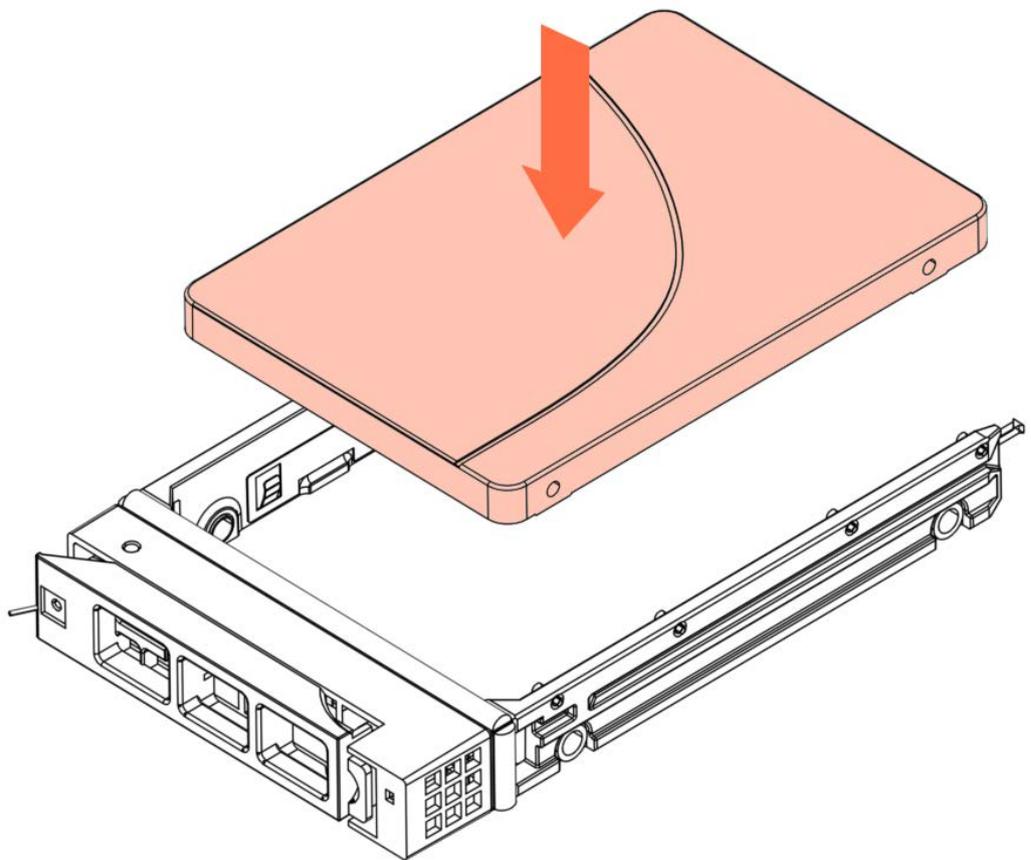
Important The 2.5 inch SATA disks are hot-pluggable.

Required tools

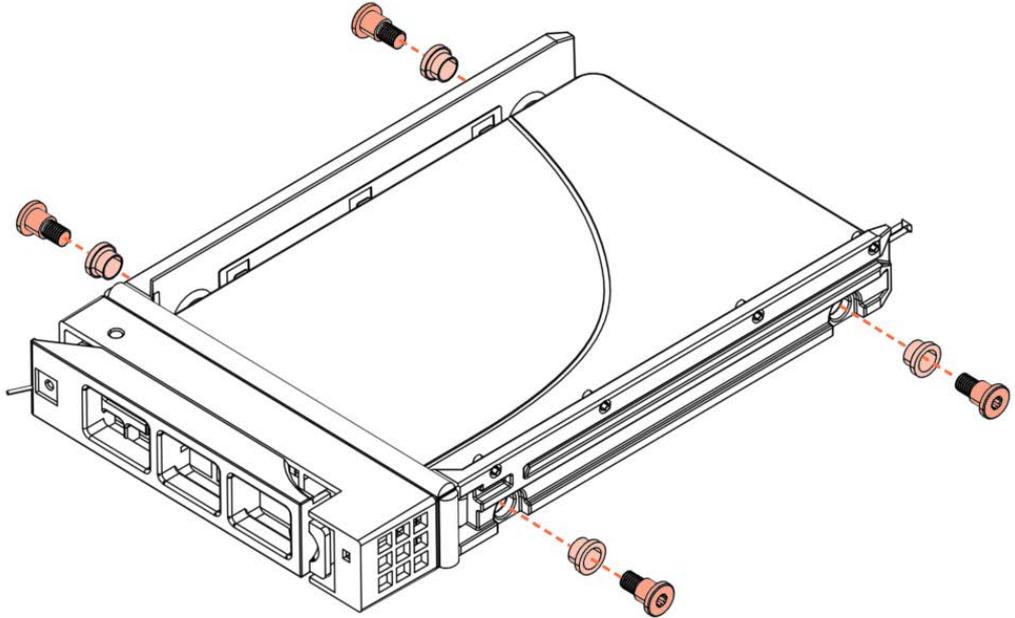
T10 Torx screwdriver

Procedure

1. Take hold of the new component
2. Install the disk in its cage
 1. Position the disk in its cage.



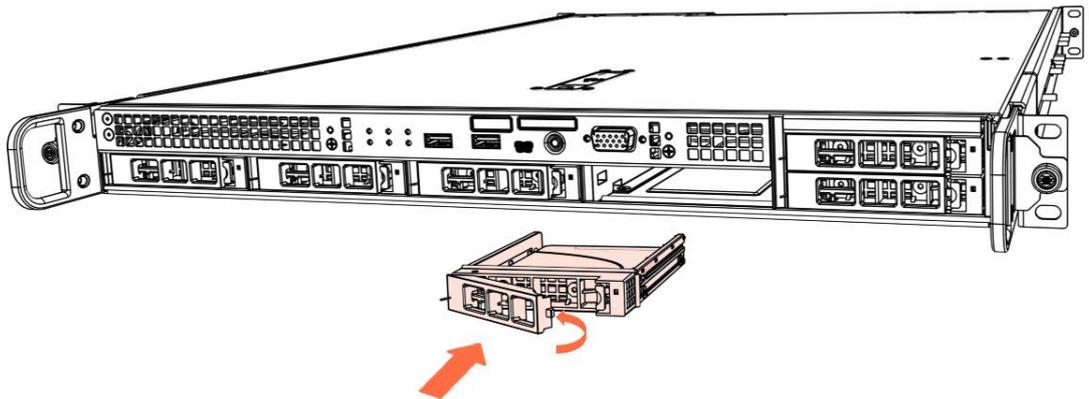
2. Tighten the screws with the rubber grommets.



3. Install the 2.5 inch SATA disk

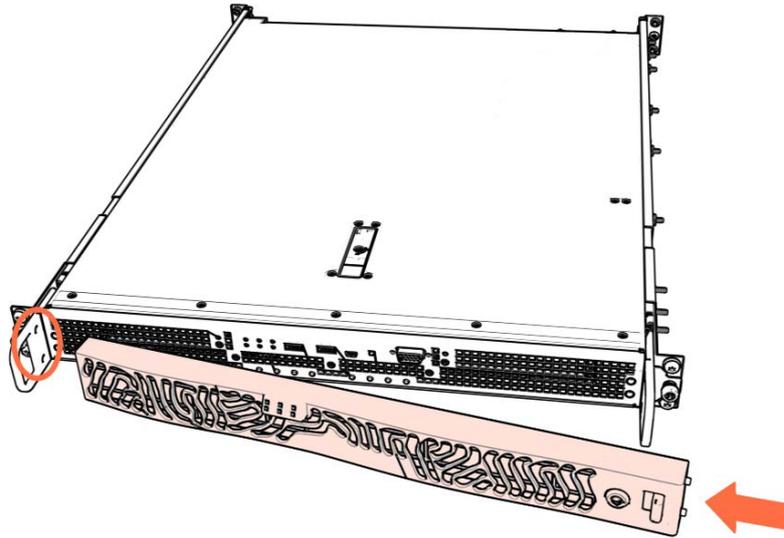
1. Carefully push the disk in until it stops.
2. Rotate its handle to lock the latch.

Front view

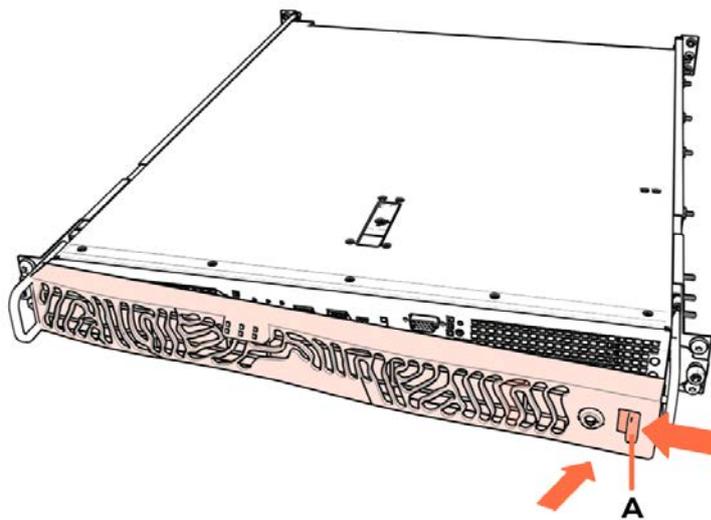


4. Install the bezel

1. Insert the left side of the bezel into the dedicated holes.



2. Rotate the bezel backwards.
3. Press and hold the latch (A) in.



4. Release the latch (A) when the bezel is in place.

5. Close the cabinet front door

Chapter 3. Servicing a front M.2 NVMe disk

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CAUTION C004

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To reduce the possibility of damage from electrostatic discharge, observe the following precautions:

- Limit your movement. Movement can cause static electricity to build up around you.
- Wear an electrostatic-discharge wrist strap.
- Wear electrostatic-discharge gloves.
- Handle the device carefully, holding it by its edges or its frame.
- Do not solder joints, pins, or exposed circuitry.
- Do not leave the device where others can handle and damage it.
- While the device is still in its static-protective package, touch it to an unpainted metal surface on the outside of the server for at least 2 seconds. This drains static electricity from the package and from your body.
- Remove the device from its package and install it directly into the server without setting down the device. If it is necessary to set down the device, put it back into its static-protective package. Do not place the device on the server cover or on a metal surface.
- Take additional care when you handle devices during cold weather.
- Heating reduces indoor humidity and increases static electricity.

See Description Guide to locate the disk.

3.1. Removing a front M.2 NVMe disk

Note The following images apply to 110 mm M.2 NVMe disks. The procedure remains the same for 80 mm disks.

Required tools

Cross-headed screwdriver

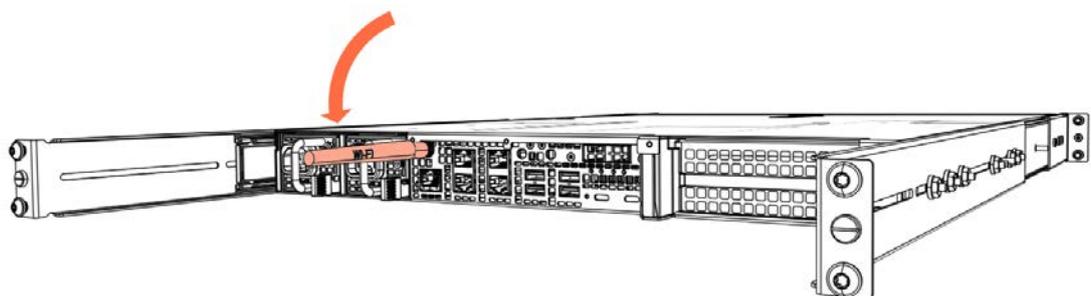
PH0 cross-headed screwdriver

Procedure

1. **Unpack the new component on a clean ESD-protected work surface**
2. **Open the cabinet front door**
3. **Open the cabinet rear door**
4. **Power off the server**
5. **Disconnect all the cables from the server**
 1. Check all the cables are correctly labeled.
 2. Disconnect all the power cables.
 3. Disconnect all the network cables.
 4. Check all the LEDs are off.
6. **Rotate the external antennas to the horizontal position**



Rear view



7. Remove the server from the cabinet



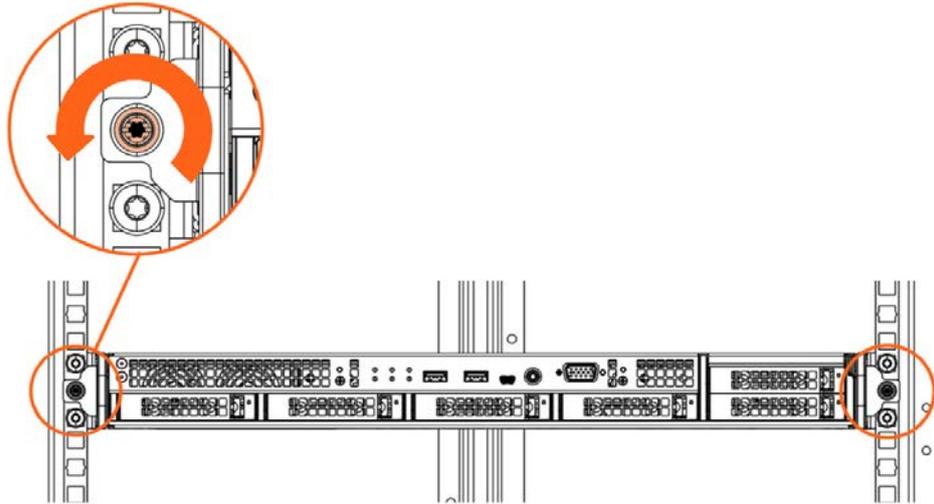
CAUTION C045

Two people are required to perform this operation.

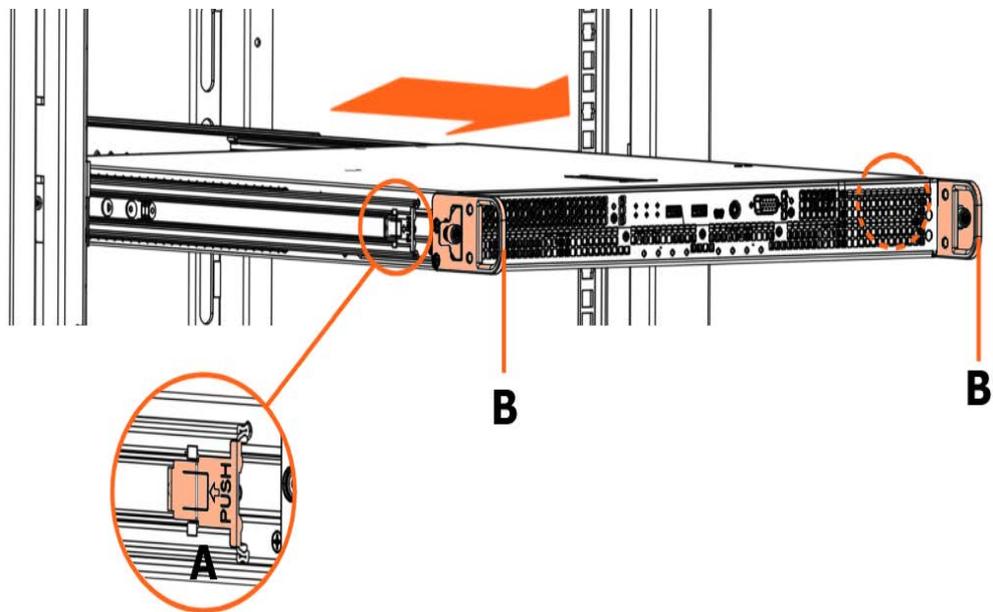
1. Loosen the captive screws to release the server.



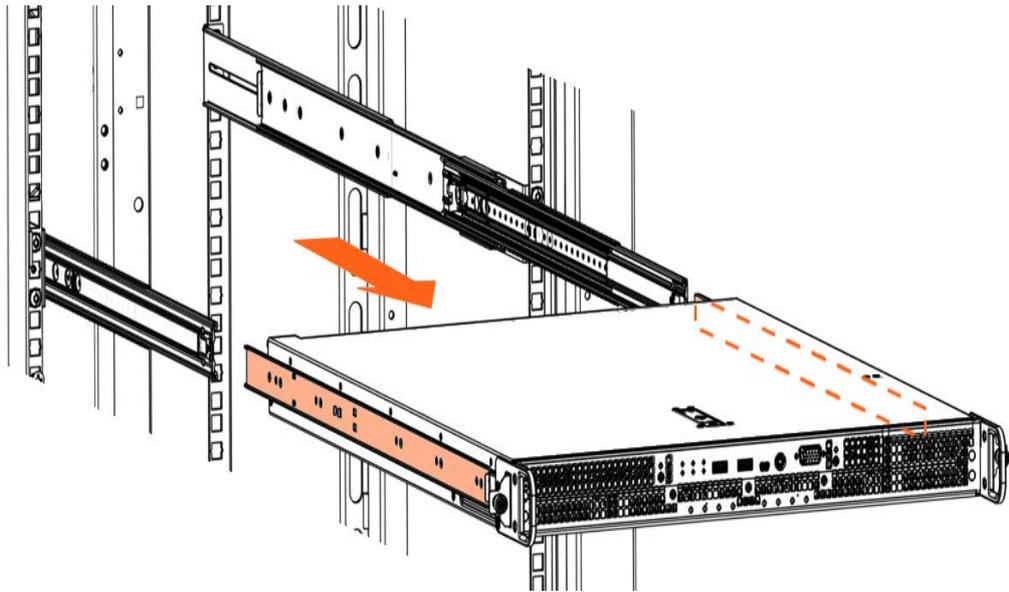
Front view



2. Pull the server using the handles (B) until it is blocked, then push the release latch (A) on each side to free the server from the rail assemblies.



3. Pull the server completely out of the cabinet.

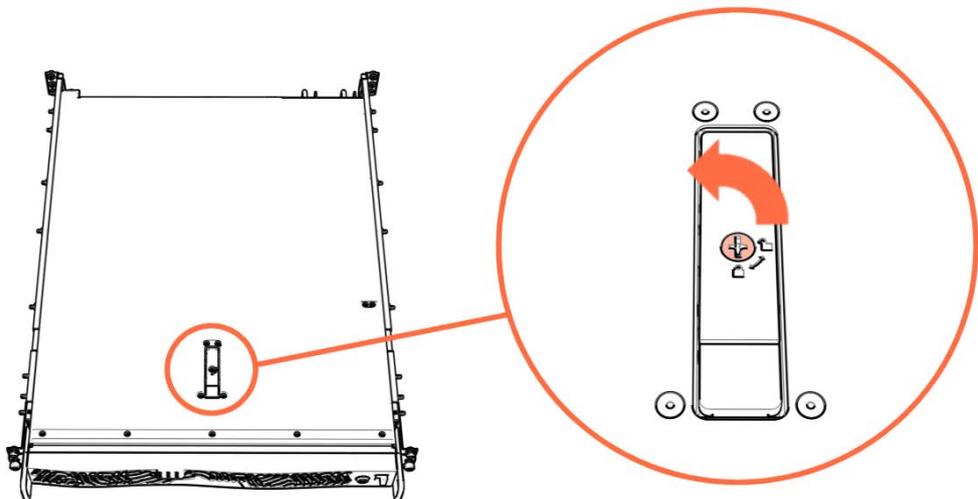


8. Remove the top cover

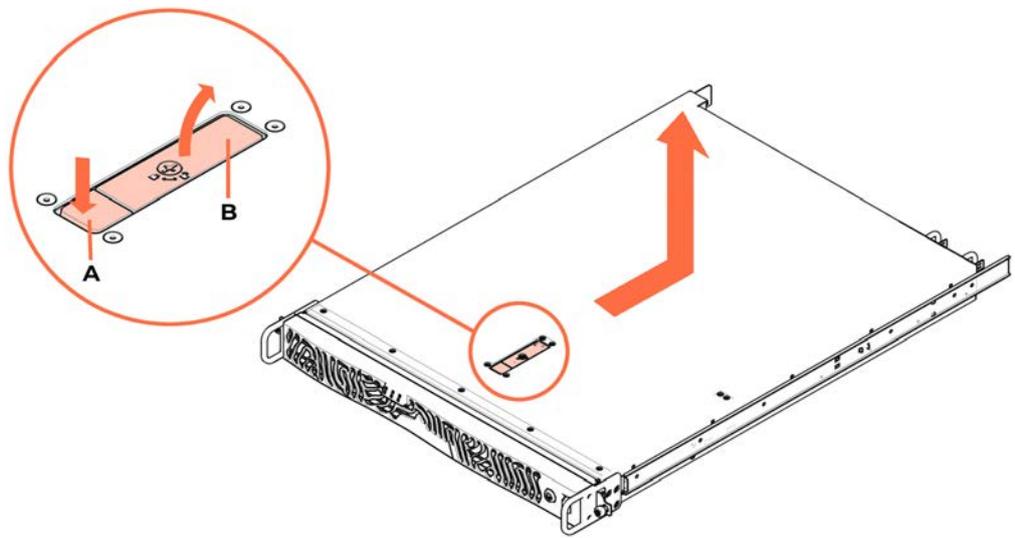
1. Loosen the captive screw to unlock the cover latch.



Top view



2. Push the button (A) to release the latch. The upper part (B) rises up.
3. Slide the cover back slightly and lift it up.

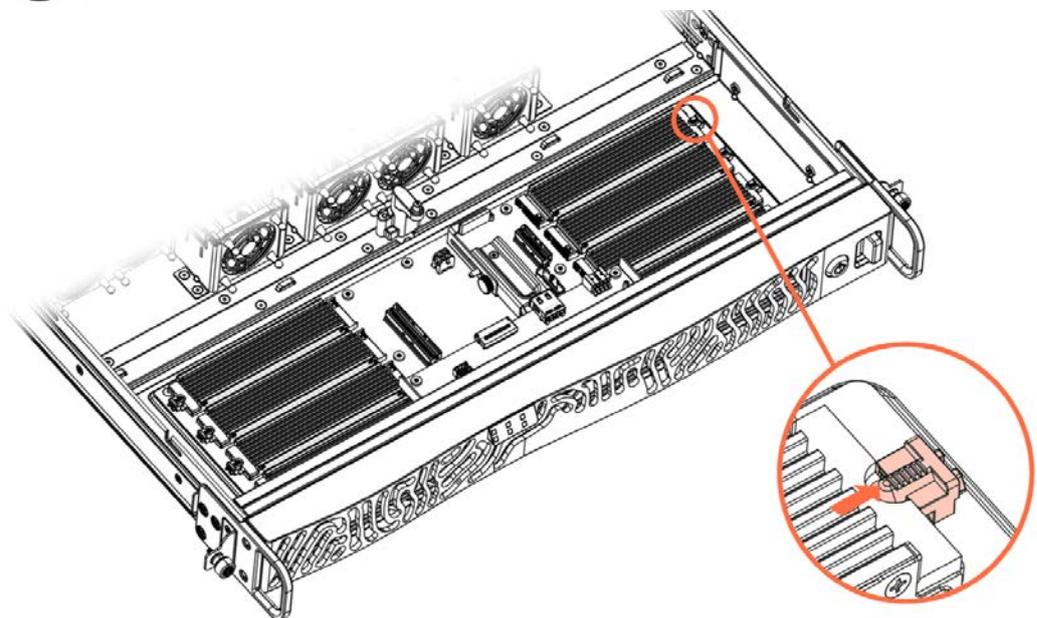


9. Remove the disk assembly

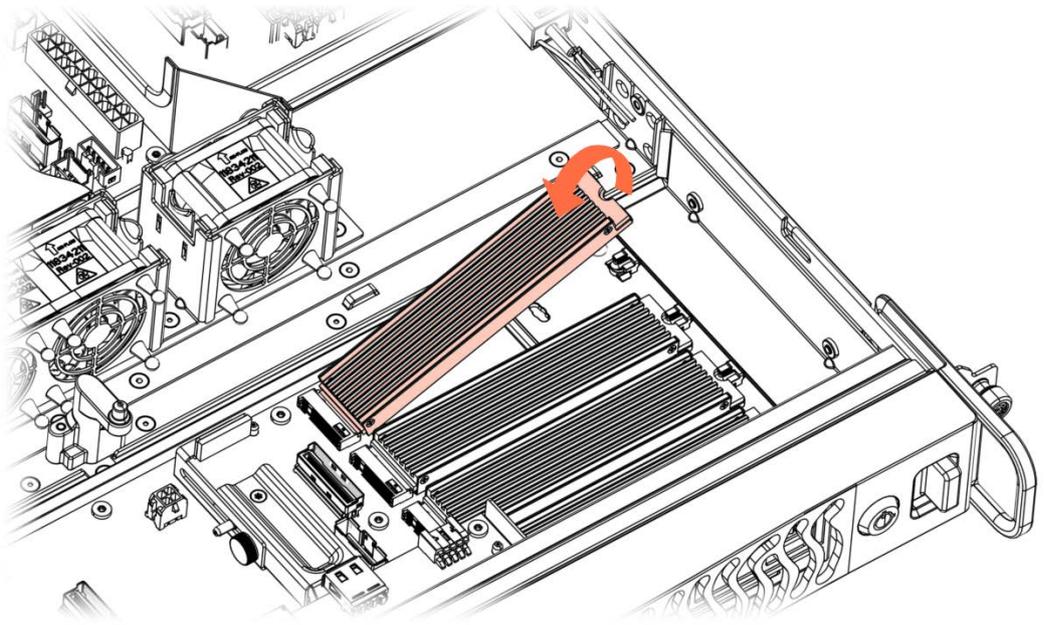
1. Push the latch to unlock the disk assembly.



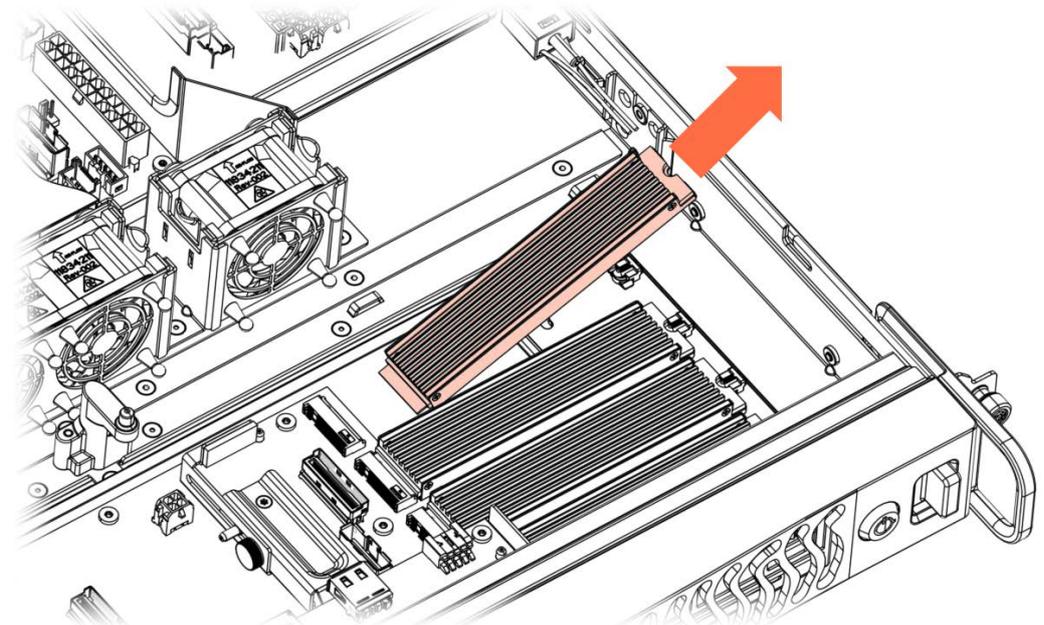
Front view



2. Raise the disk assembly up to about 20° above the horizontal.



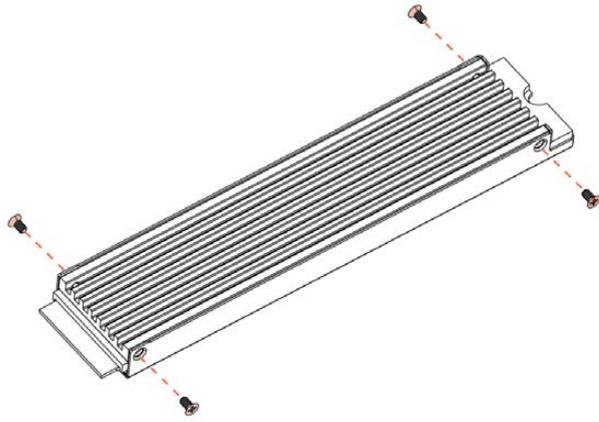
3. Remove the disk assembly.



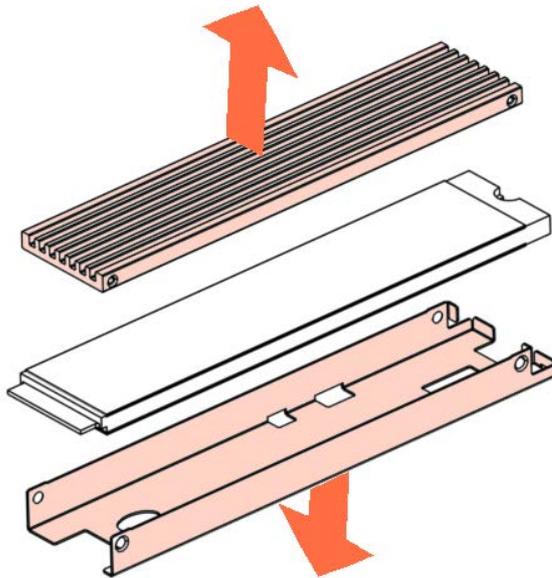
10. Remove the M.2 NVMe disk

Perform the following operations if the disk is equipped with a heat sink.

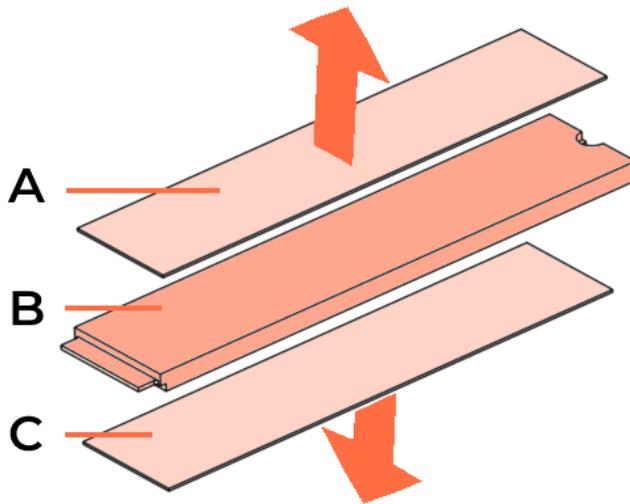
1. Remove the heat sink.
 - a. Remove the screws.



- b. Remove the heat sink cover and the heat sink base.



2. Remove the thermal pads (A, C) from the M.2 NVMe disk (B).



3.2. Installing a front M.2 NVMe disk

Note The following images apply to 110 mm M.2 NVMe disks. The procedure remains the same for 80 mm disks.

Required tools

Cross-headed screwdriver

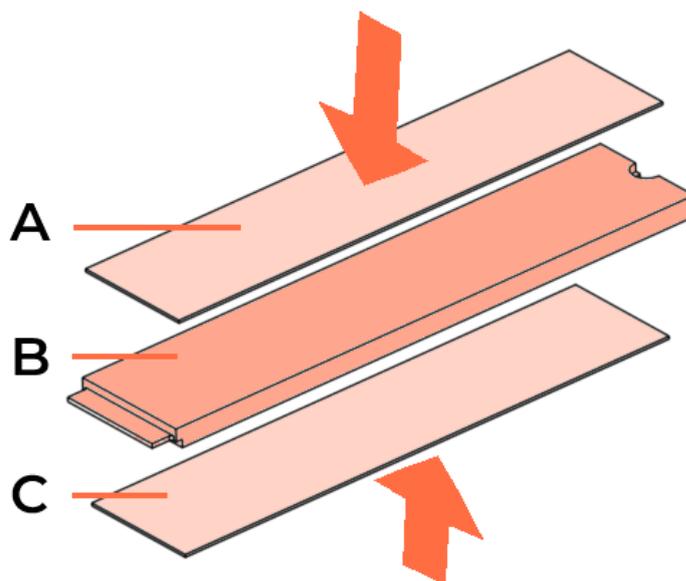
PH0 cross-headed screwdriver

Procedure

1. **Take hold of the new component**
2. **Install the M.2 NVMe disk**

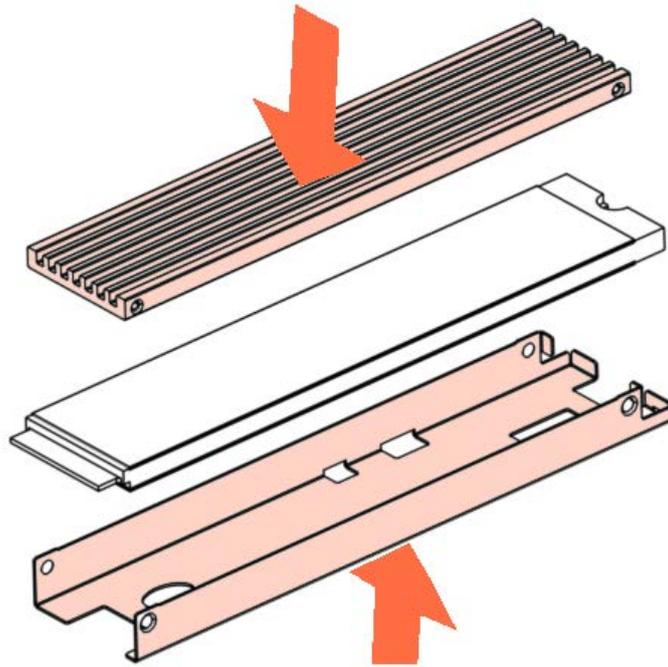
Perform the following operations if the disk is equipped with a heat sink.

1. Install new thermal pads (A, C) on each side of the M.2 NVMe disk (B).

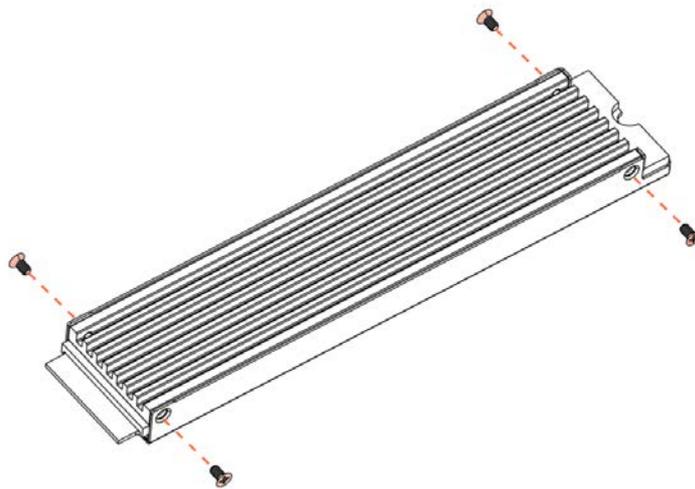


2. Install the heat sink.

a. Put the heat sink cover and the heat sink base back.

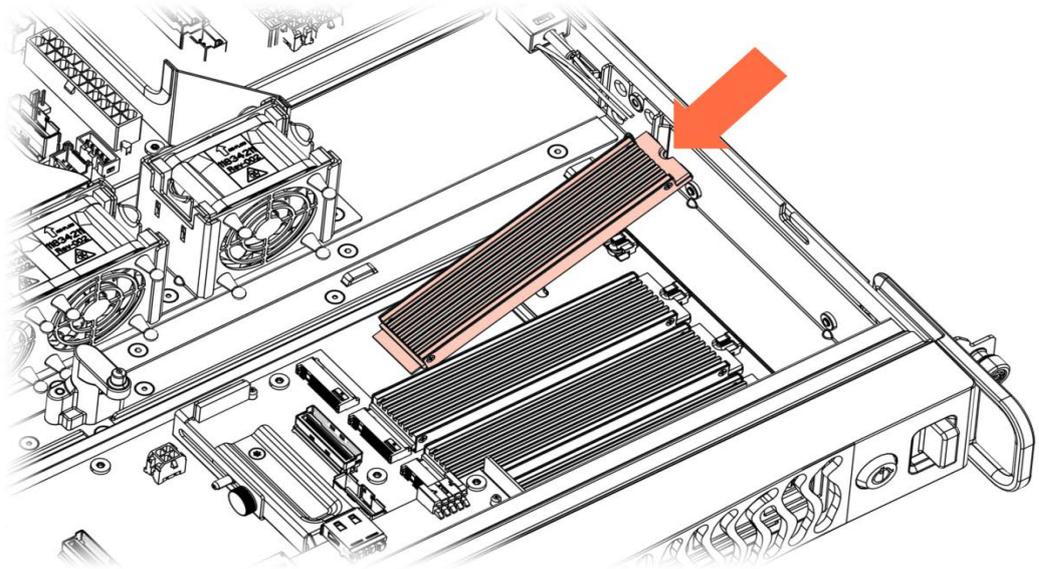


b. Tighten the screws.

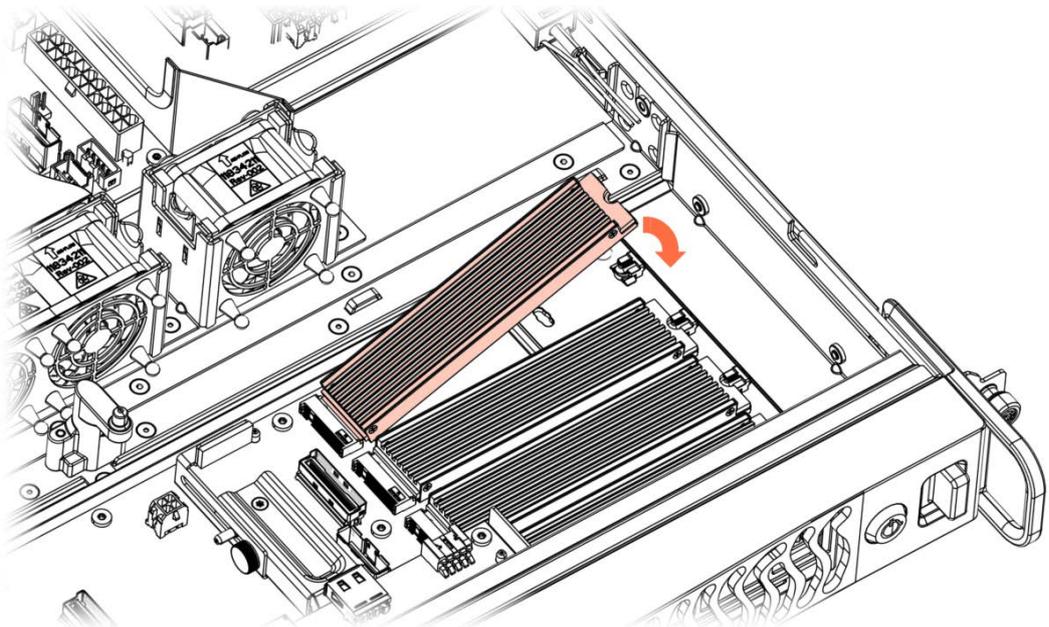


3. Install the disk assembly

1. Insert the disk at an angle around 20° to the horizontal.



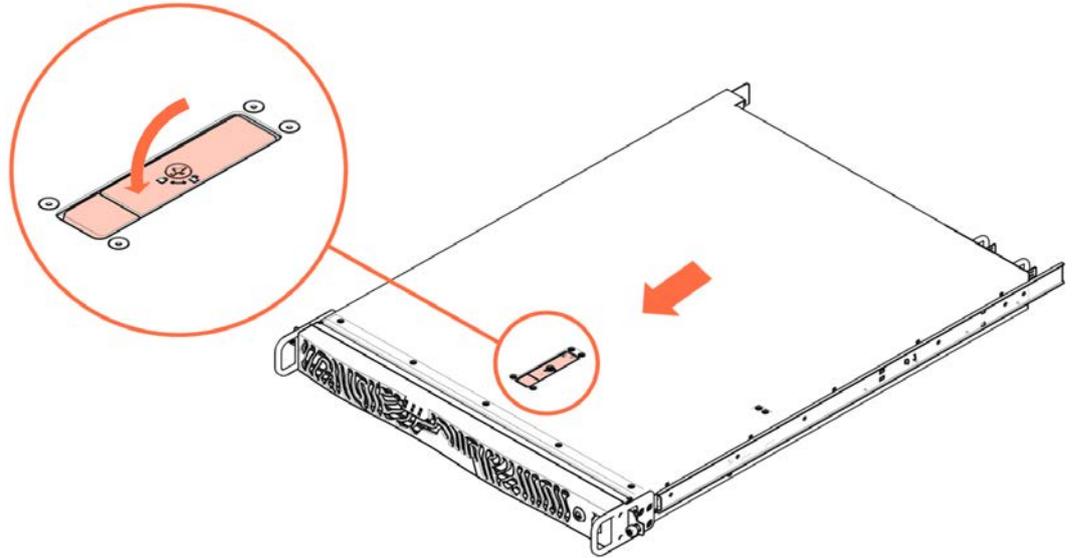
2. Lower the disk down.



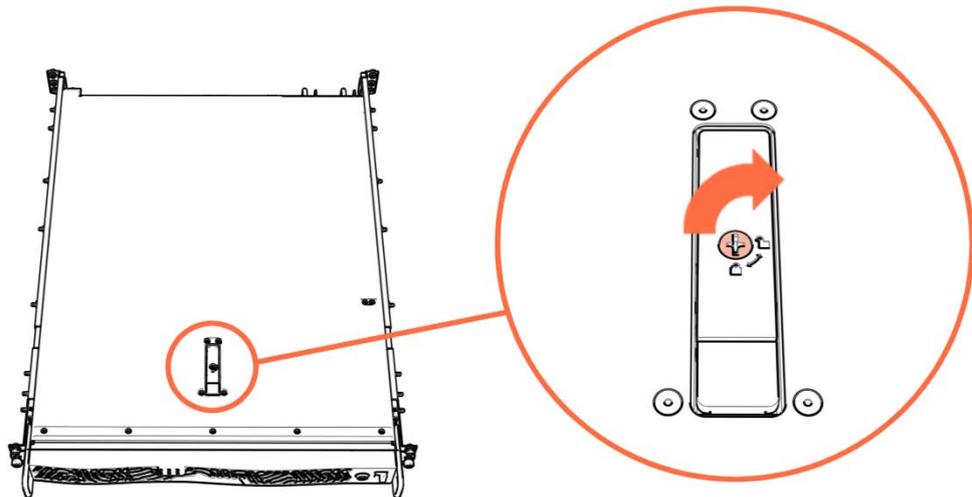
4. Install the top cover

1. Position the cover on the server and slide it forward until it is in place.
2. Lower the upper part of the cover latch.

 **Top view**



3. Tighten the captive screw to lock the cover latch.



5. Install the server in the cabinet



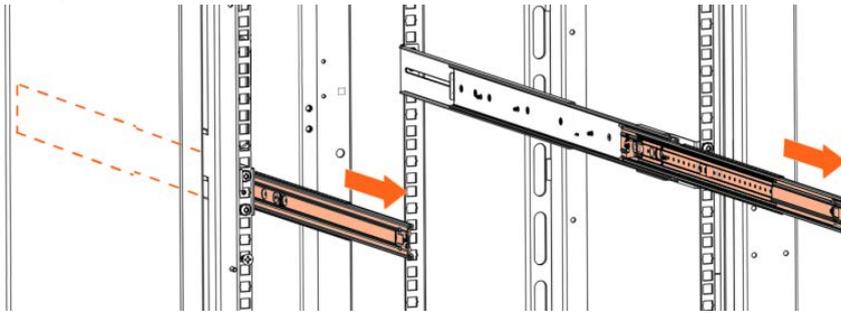
CAUTION C045

Two people are required to perform this operation.

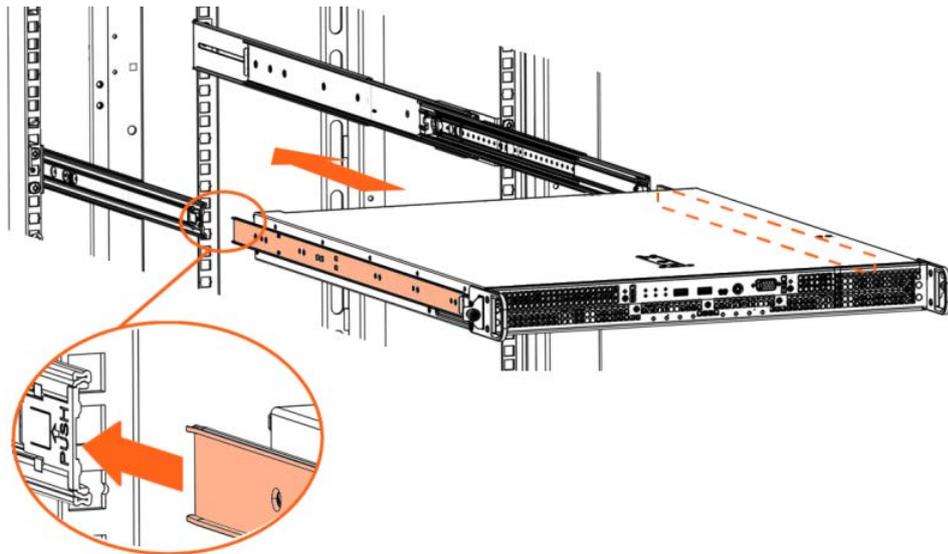
1. Pull the middle rails out.



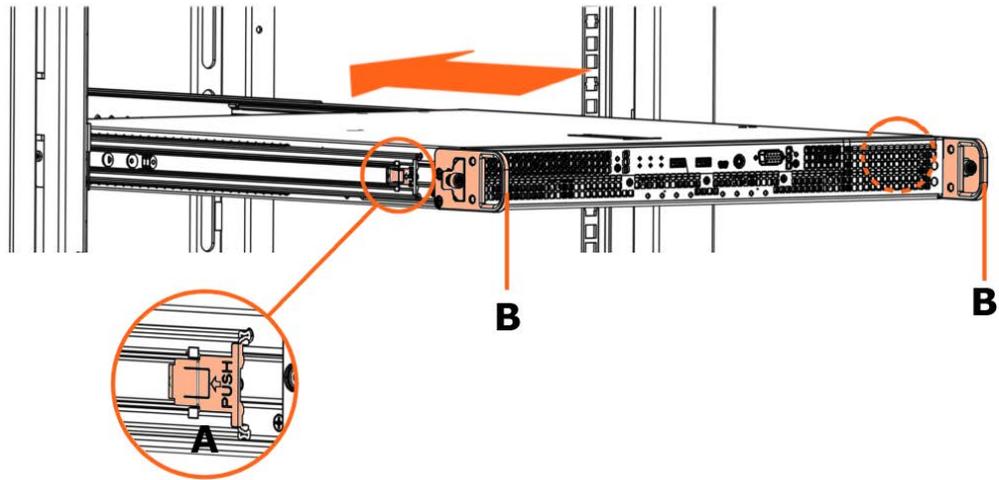
Front view



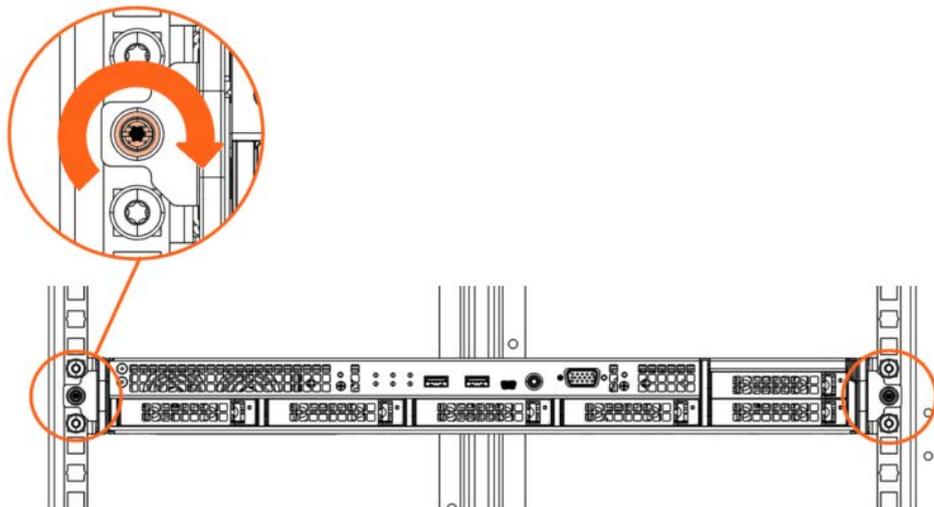
2. Slide the server into the middle rails using the inner rails attached to the server.



3. When the rail assemblies click, push the release latch (A) on each side to allow the server to be pushed completely into the cabinet using the handles (B).

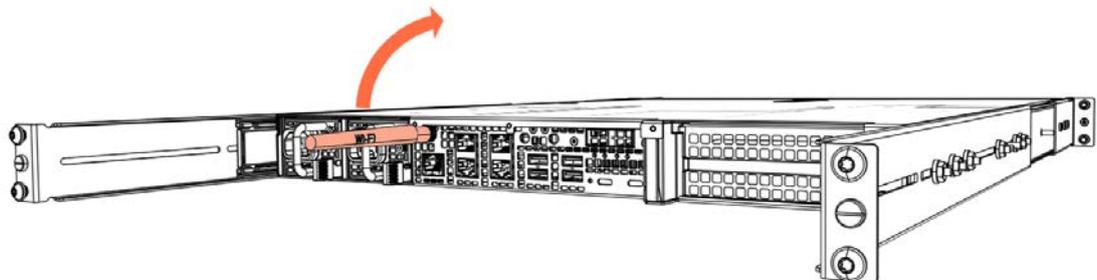


4. Tighten the captive screws to secure the server into place.



6. Rotate the external antennas to the vertical position

 Rear view



- 7. Connect all the cables to the server**
- 8. Power on the server**
- 9. Close the cabinet rear door**
- 10. Close the cabinet front door**

Chapter 4. Servicing a fan

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CAUTION C004

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To reduce the possibility of damage from electrostatic discharge, observe the following precautions:

- Limit your movement. Movement can cause static electricity to build up around you.
- Wear an electrostatic-discharge wrist strap.
- Wear electrostatic-discharge gloves.
- Handle the device carefully, holding it by its edges or its frame.
- Do not solder joints, pins, or exposed circuitry.
- Do not leave the device where others can handle and damage it.
- While the device is still in its static-protective package, touch it to an unpainted metal surface on the outside of the server for at least 2 seconds. This drains static electricity from the package and from your body.
- Remove the device from its package and install it directly into the server without setting down the device. If it is necessary to set down the device, put it back into its static-protective package. Do not place the device on the server cover or on a metal surface.
- Take additional care when you handle devices during cold weather.
- Heating reduces indoor humidity and increases static electricity.

See Description Guide to locate the fan.

4.1. Removing a fan

Required tools

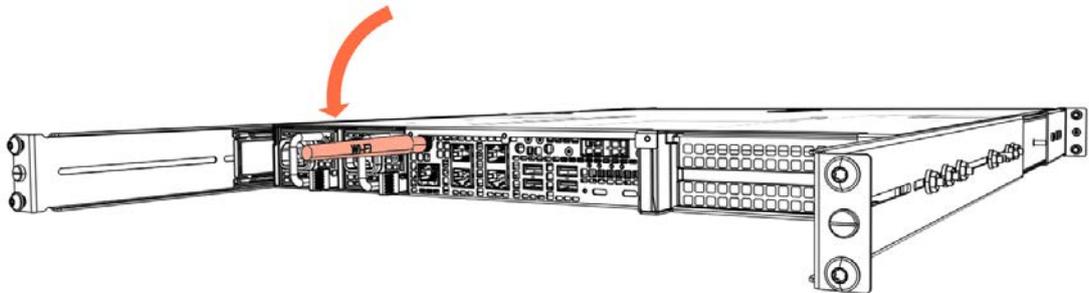
Cross-headed screwdriver

Procedure

1. **Unpack the new component on a clean ESD-protected work surface**
2. **Open the cabinet front door**
3. **Open the cabinet rear door**
4. **Power off the server**
5. **Disconnect all the cables from the server**
 1. Check all the cables are correctly labeled.
 2. Disconnect all the power cables.
 3. Disconnect all the network cables.
 4. Check all the LEDs are off.
6. **Rotate the external antennas to the horizontal position**



Rear view



7. Remove the server from the cabinet



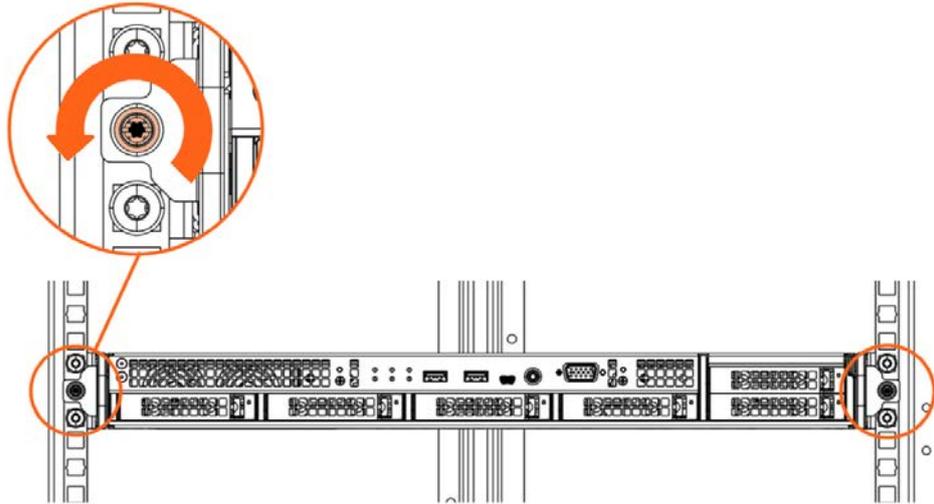
CAUTION C045

Two people are required to perform this operation.

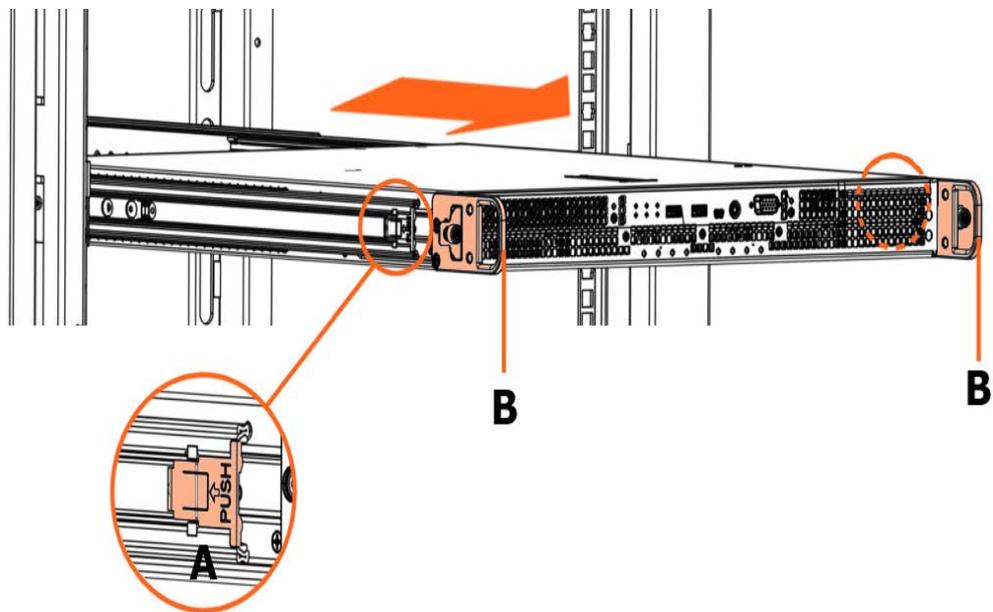
1. Loosen the captive screws to release the server.



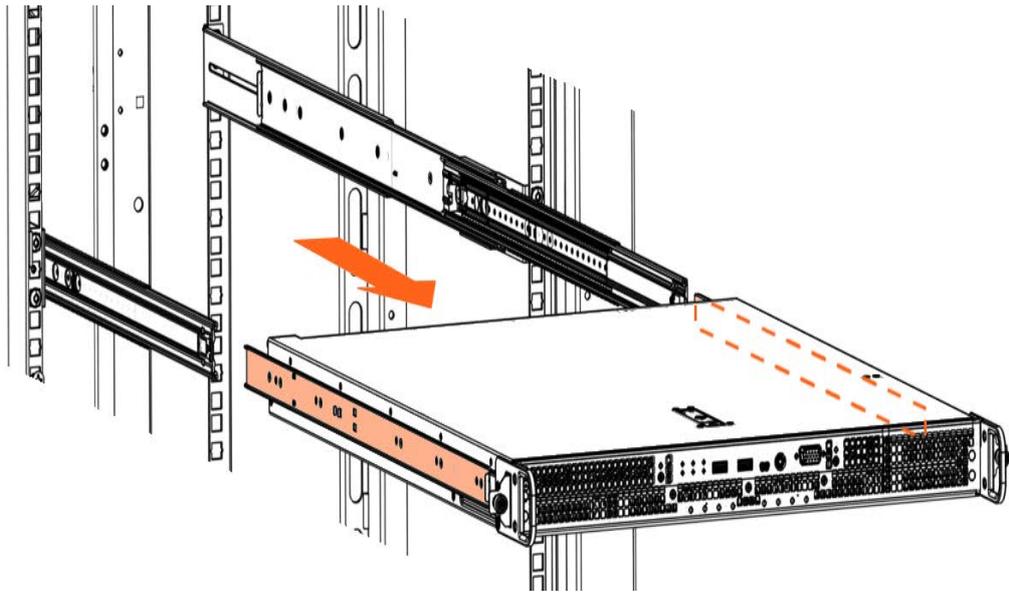
Front view



2. Pull the server using the handles (B) until it is blocked, then push the release latch (A) on each side to free the server from the rail assemblies.



3. Pull the server completely out of the cabinet.

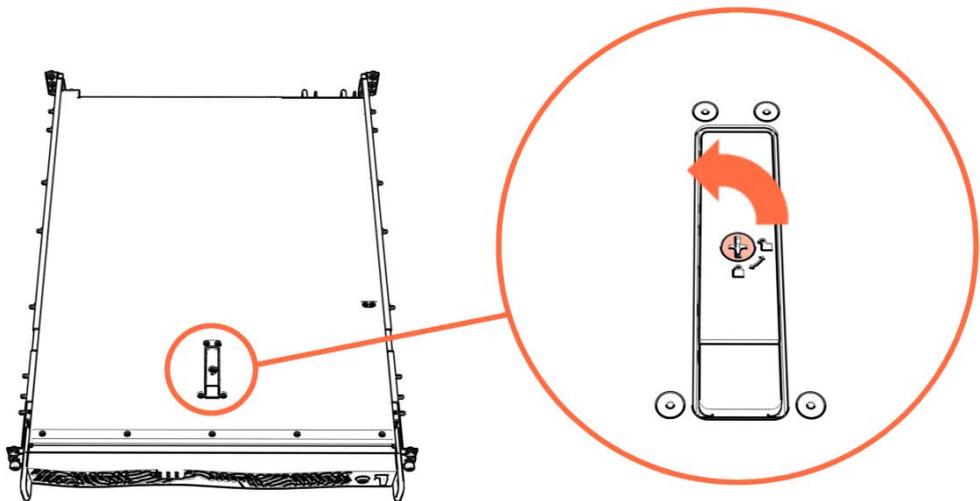


8. Remove the top cover

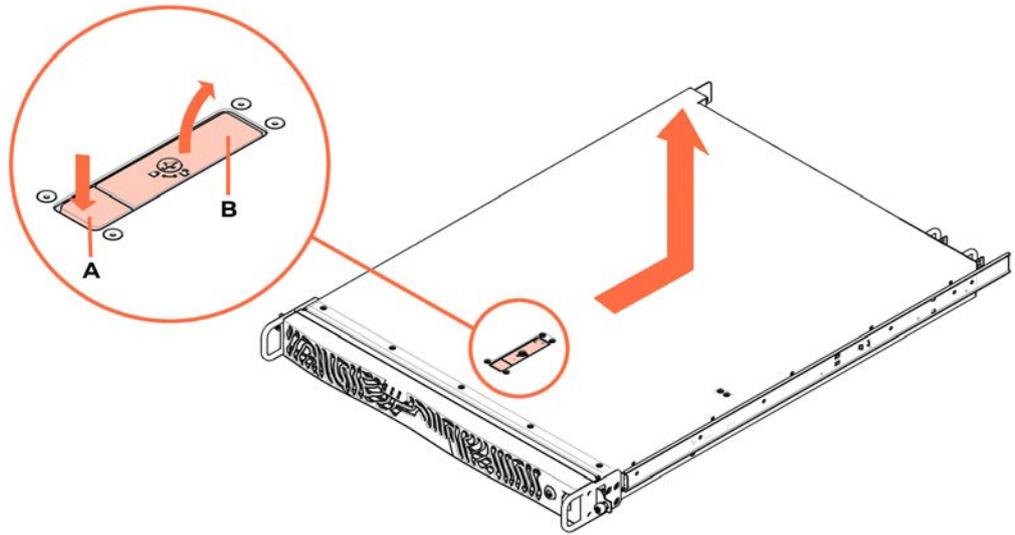
1. Loosen the captive screw to unlock the cover latch.



Top view



2. Push the button (A) to release the latch. The upper part (B) rises up.
3. Slide the cover back slightly and lift it up.



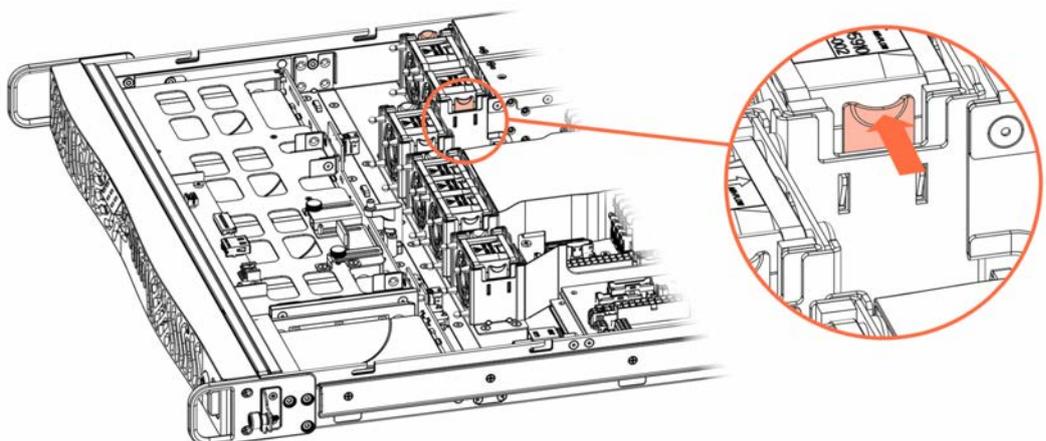
9. Remove the fan

PCIe fan

Note Both PCIe fans are removed at the same time.

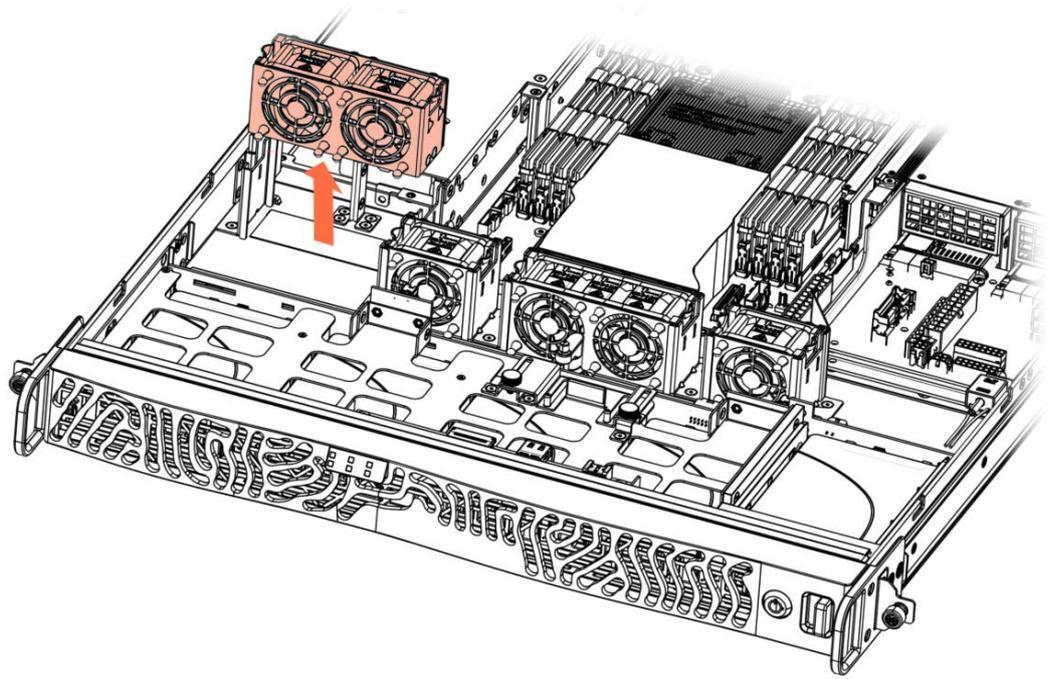
1. Disconnect the cables of both fans.
2. Press the fan latches in.

Top view



3. Pull the fans up.

 **Top view**

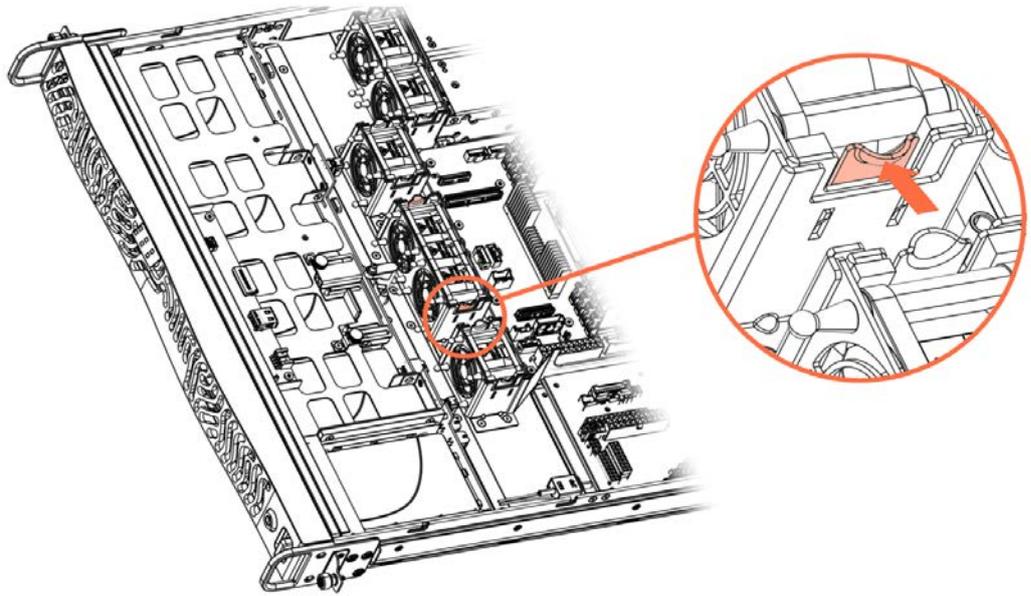


Processor fan

Note Both processor fans are removed at the same time.

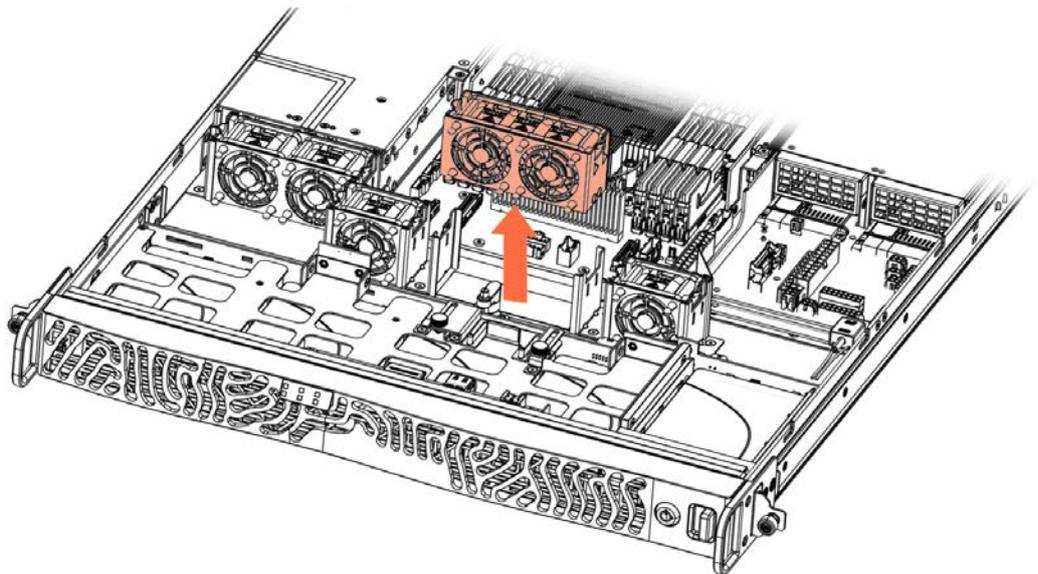
1. Disconnect the cables of both fans.
2. Press the fan assembly latches in.

 **Top view**



3. Pull the fan up.

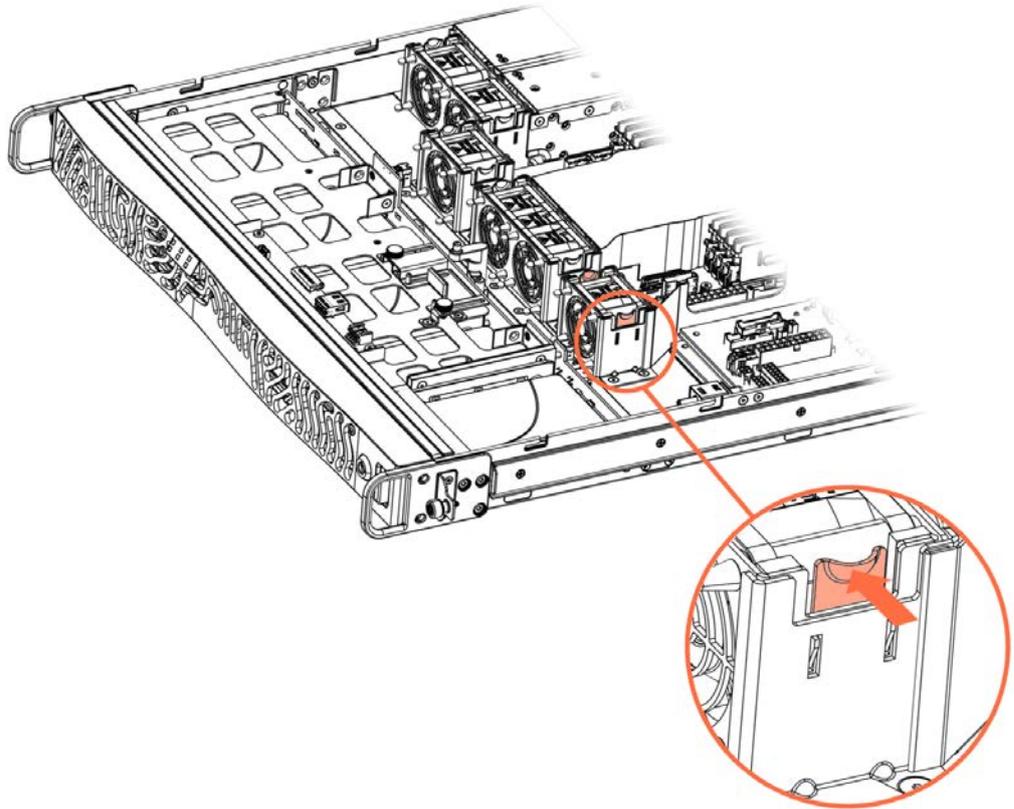
 **Top view**



Single fan

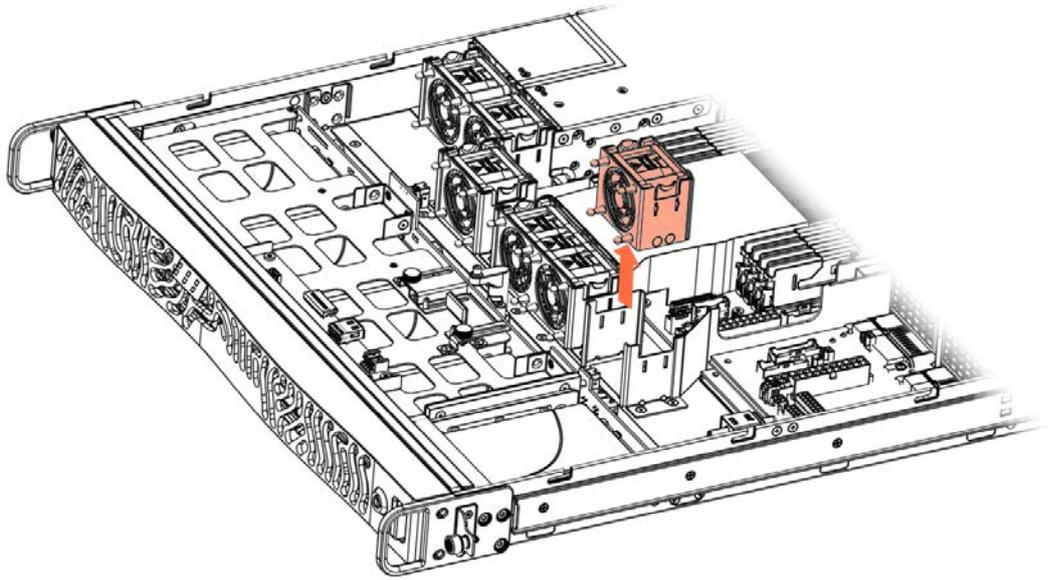
1. Disconnect the cable of either left or right fan, as required.
2. Press the fan latches in.

 **Top view**



3. Pull the fan up.

 **Top view**



4.2. Installing a fan

Required tools

Cross-headed screwdriver

Procedure

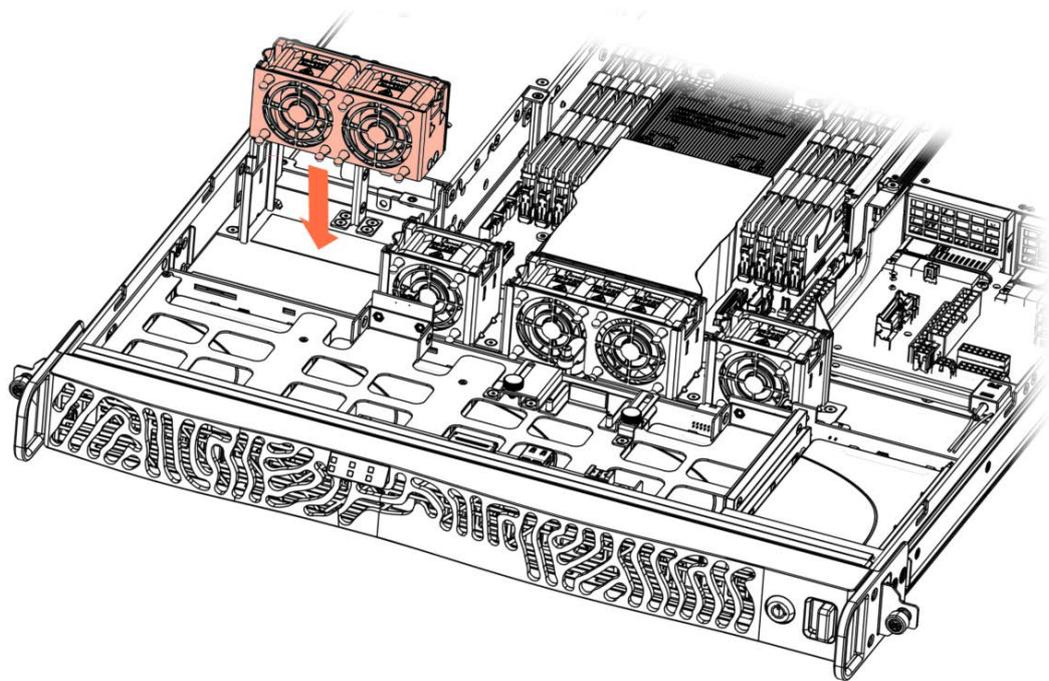
1. Take hold of the new component

2. Install a fan

PCIe fan

Note Both PCIe fans are installed at the same time.

1. Lower the fan locking the latches in the cutouts.



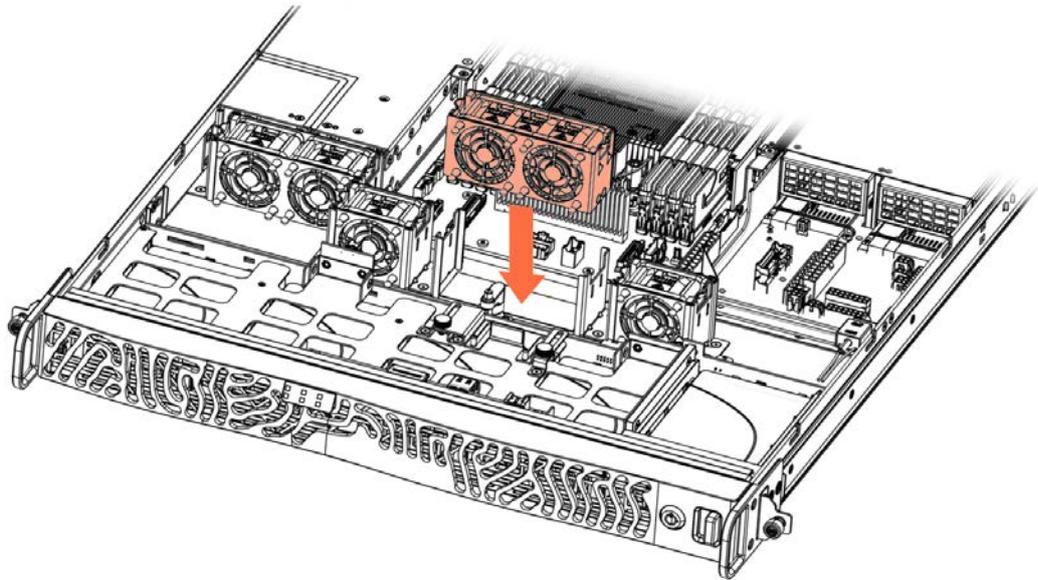
2. Connect the cables of both fans.

Processor fan

Note Both processor fans are installed at the same time.

1. Lower the fan locking the latches in the cutouts.

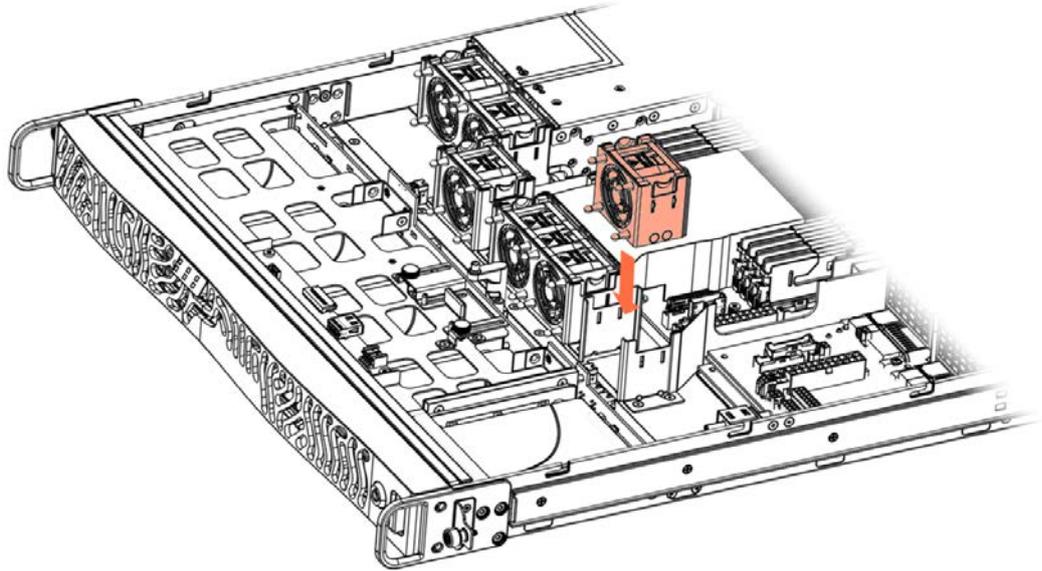
 **Top view**



2. Connect the cables of both fans.

Single fan

1. Lower the fan locking the latches in the cutouts.

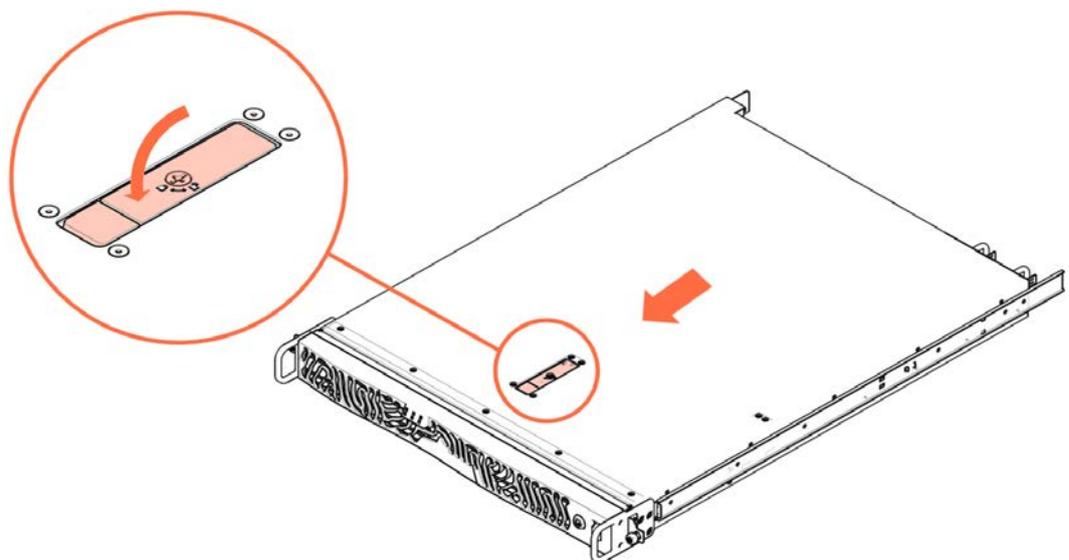


2. Connect the cable of the fan.

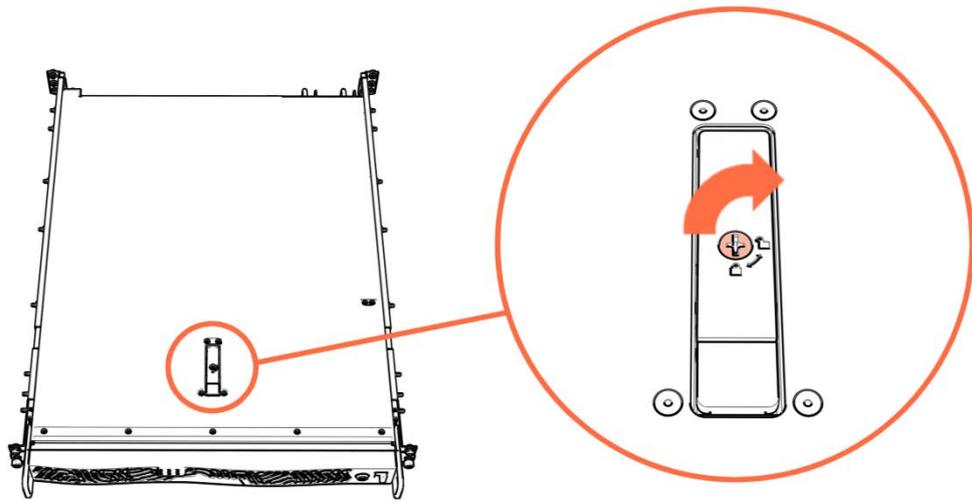
3. Install the top cover

1. Position the cover on the server and slide it forward until it is in place.
2. Lower the upper part of the cover latch.

Top view



3. Tighten the captive screw to lock the cover latch.



4. Install the server in the cabinet



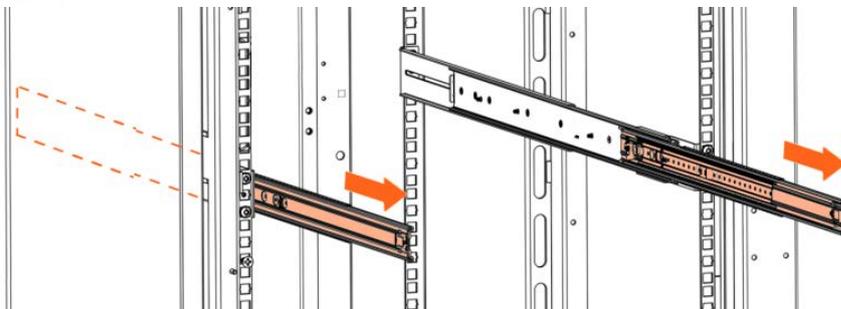
CAUTION C045

Two people are required to perform this operation.

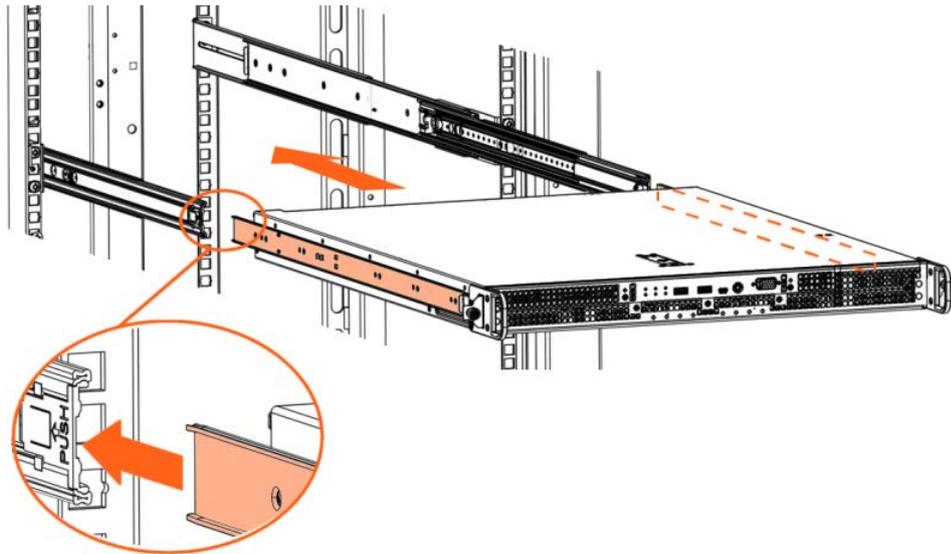
1. Pull the middle rails out.



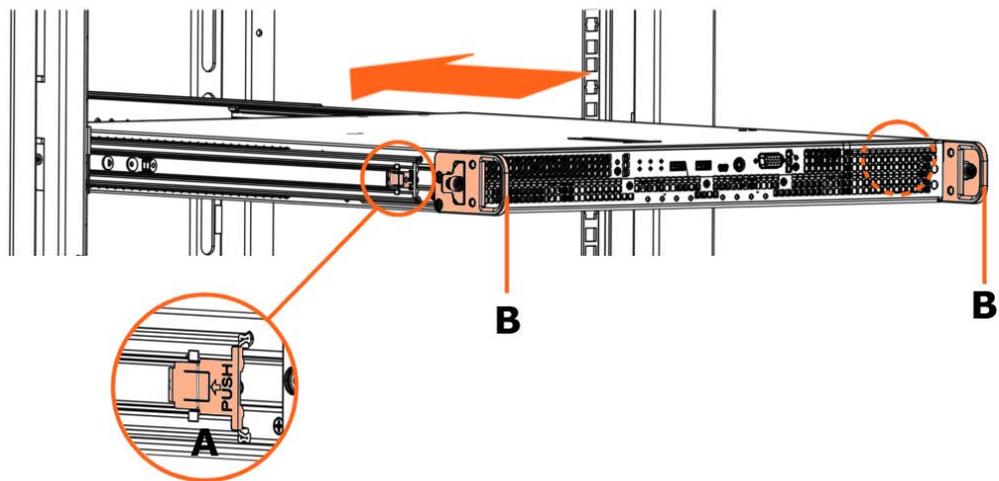
Front view



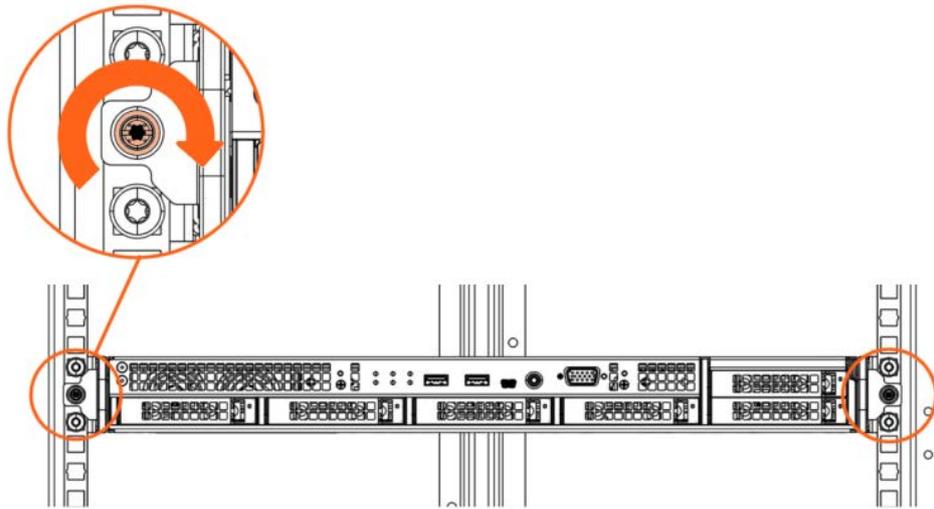
- Slide the server into the middle rails using the inner rails attached to the server.



- When the rail assemblies click, push the release latch (A) on each side to allow the server to be pushed completely into the cabinet using the handles (B).

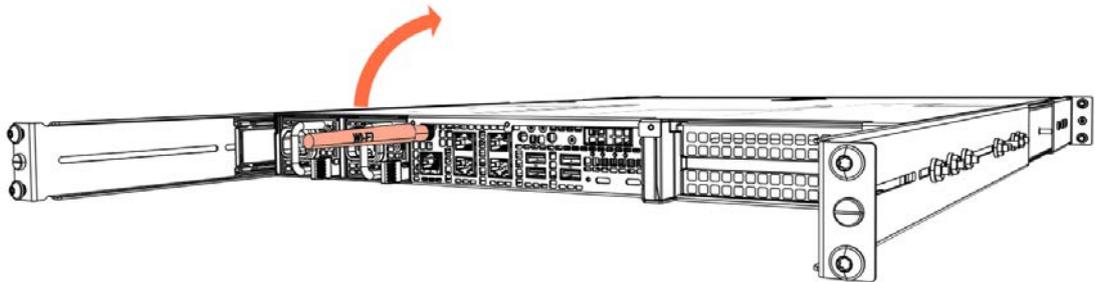


4. Tighten the captive screws to secure the server into place.



5. Rotate the external antennas to the vertical position

 Rear view



6. Connect all the cables to the server

7. Power on the server

8. Close the cabinet rear door

9. Close the cabinet front door

Chapter 5. Servicing the bezel filter

Important **ATTENTION:** Please read carefully the safety instructions before you perform the procedures described in this manual. See the *Multilingual Safety Notices Guide* for translated versions of the safety notices.



CAUTION C009

Cabinet doors must remain locked at all times except during maintenance operations.

Qualified personnel only are authorized to open the cabinet doors.



CAUTION C004

Static electricity can damage the server and other electronic devices.

To avoid damage, keep static-sensitive devices in their static-protective packages until you are ready to install them.

To reduce the possibility of damage from electrostatic discharge, observe the following precautions:

- Limit your movement. Movement can cause static electricity to build up around you.
- Wear an electrostatic-discharge wrist strap.
- Wear electrostatic-discharge gloves.
- Handle the device carefully, holding it by its edges or its frame.
- Do not solder joints, pins, or exposed circuitry.
- Do not leave the device where others can handle and damage it.
- While the device is still in its static-protective package, touch it to an unpainted metal surface on the outside of the server for at least 2 seconds. This drains static electricity from the package and from your body.
- Remove the device from its package and install it directly into the server without setting down the device. If it is necessary to set down the device, put it back into its static-protective package. Do not place the device on the server cover or on a metal surface.
- Take additional care when you handle devices during cold weather.
- Heating reduces indoor humidity and increases static electricity.

5.1. Recommendations

Replacement

Clean or replace air filters every 90 days.

Cleaning

- Vacuum clean to remove accumulated dust and dirt.
- Use compressed air blower and point nozzle in opposite direction of operating air flow.
- Wash away collected dirt using a standard hose nozzle and plain cold water.
- Dip the filter in a solution of warm water and mild detergent, rinse in clear water and let stand until completely dry.

5.2. Removing the bezel filter

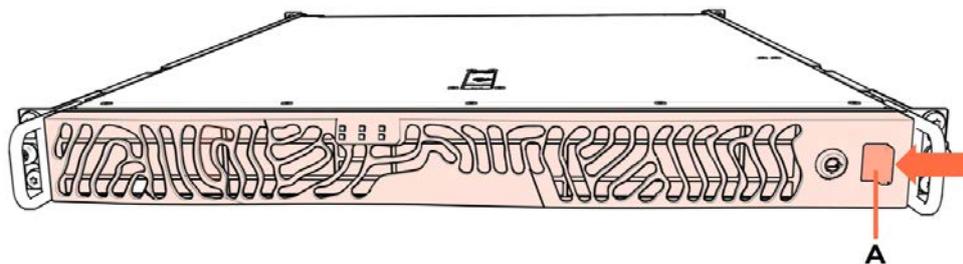
Required tools

T10 Torx screwdriver

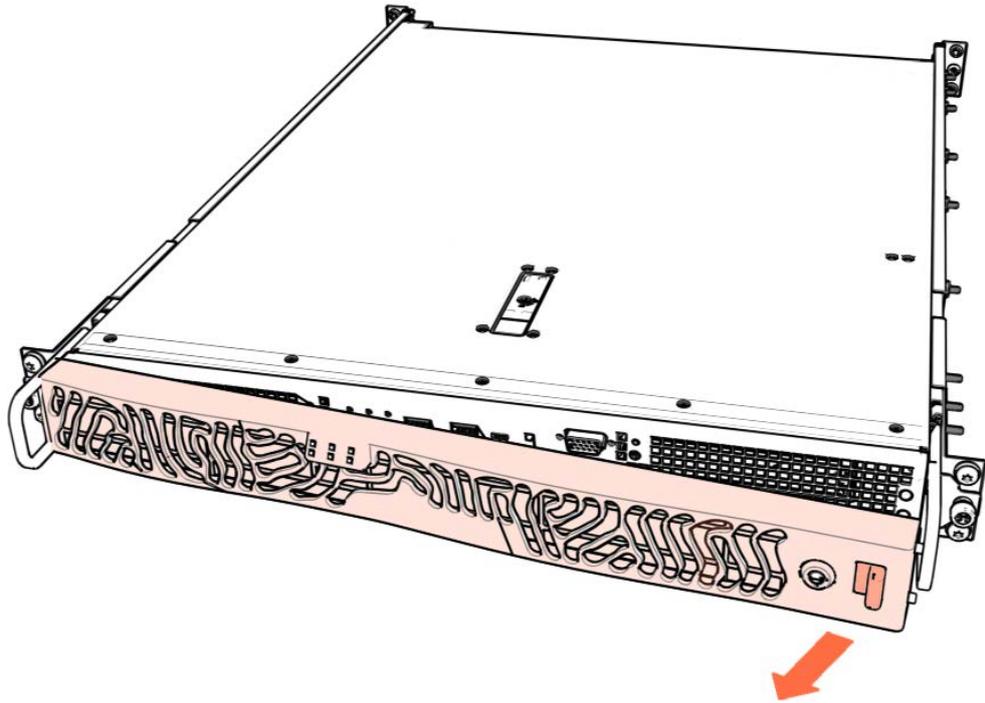
Procedure

1. **Unpack the new component on a clean ESD-protected work surface**
2. **Open the cabinet front door**
3. **Locate the server to be serviced in the cabinet**
4. **Remove the bezel**
 1. Press the latch (A) to the left to unlock the bezel.

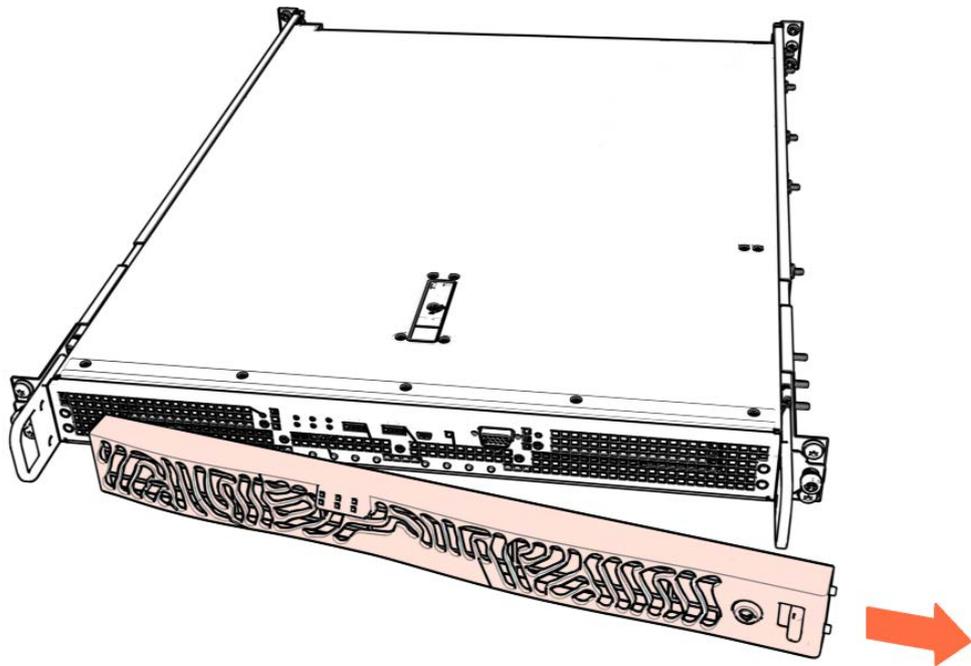
 **Front view**



2. Rotate the bezel slightly.

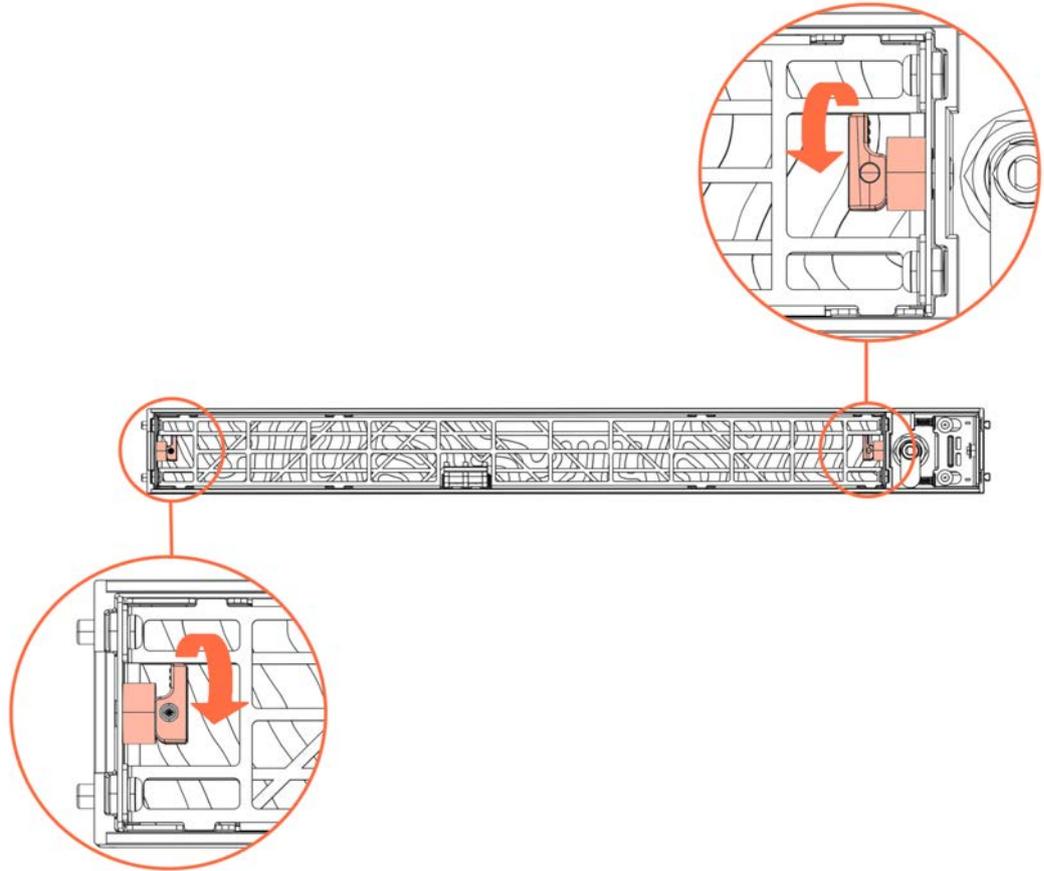


3. Remove the bezel from the left hand side of the server.

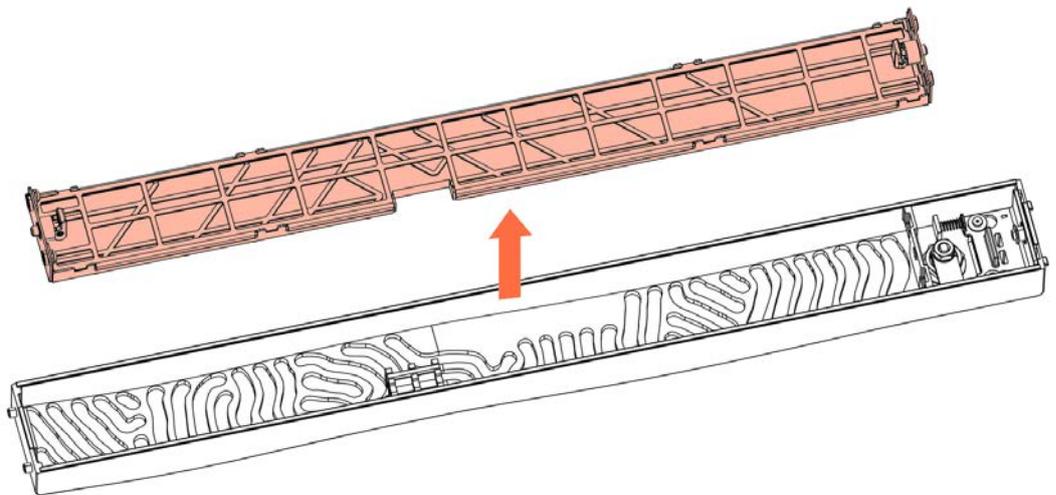


5. Remove the filter

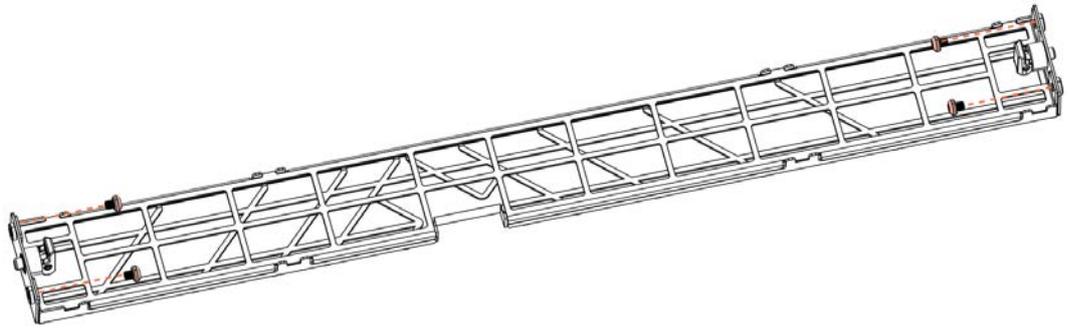
1. Lay the bezel flat on the front.
2. Rotate the plungers upwards to free the filter assembly.



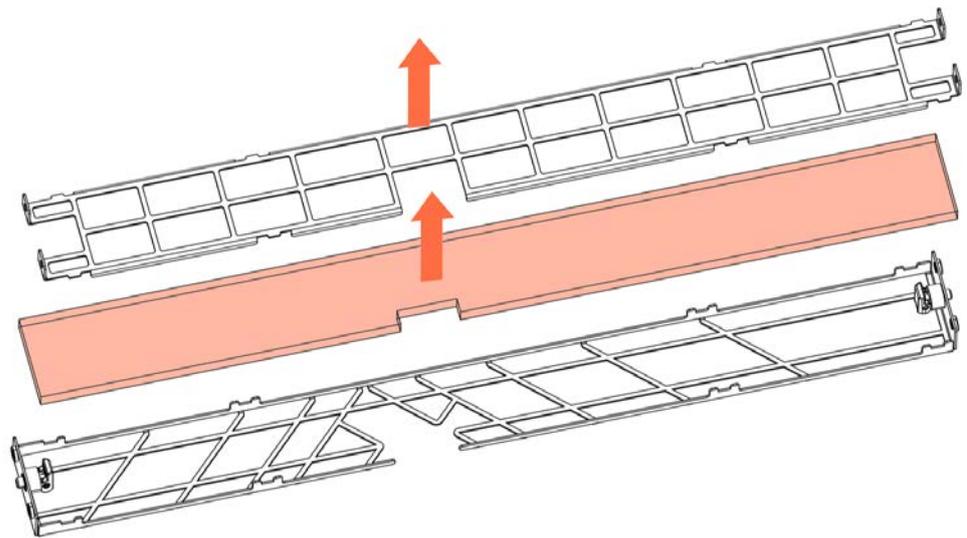
3. Lift the filter assembly out.



4. Remove the screws.



5. Remove the foam from between the two brackets.



5.3. Installing the bezel filter

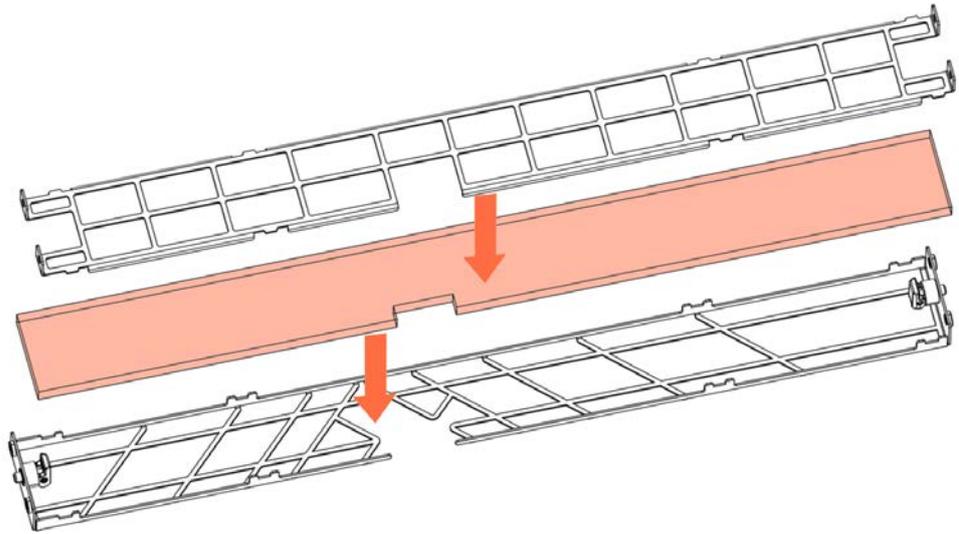
Required tools

T10 Torx screwdriver

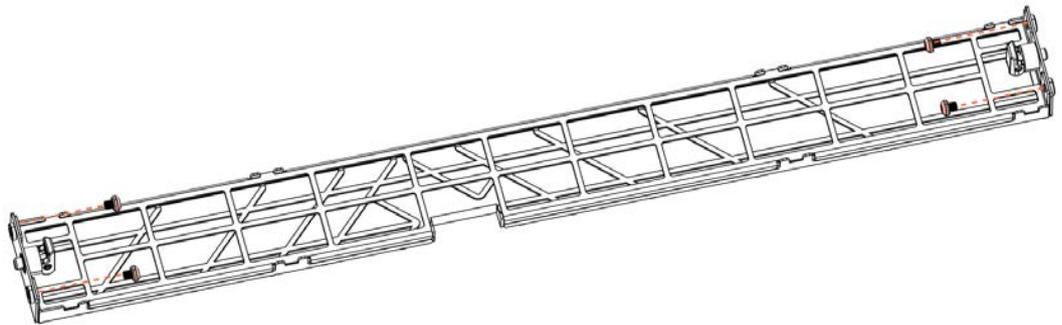
Procedure

1. Install the filter

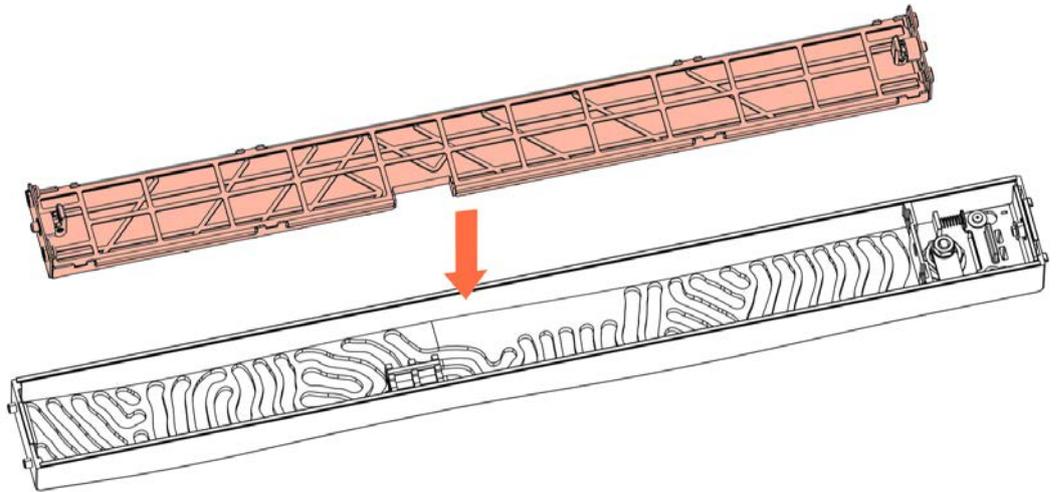
1. Put the new filter in place between the bottom and top filter brackets.



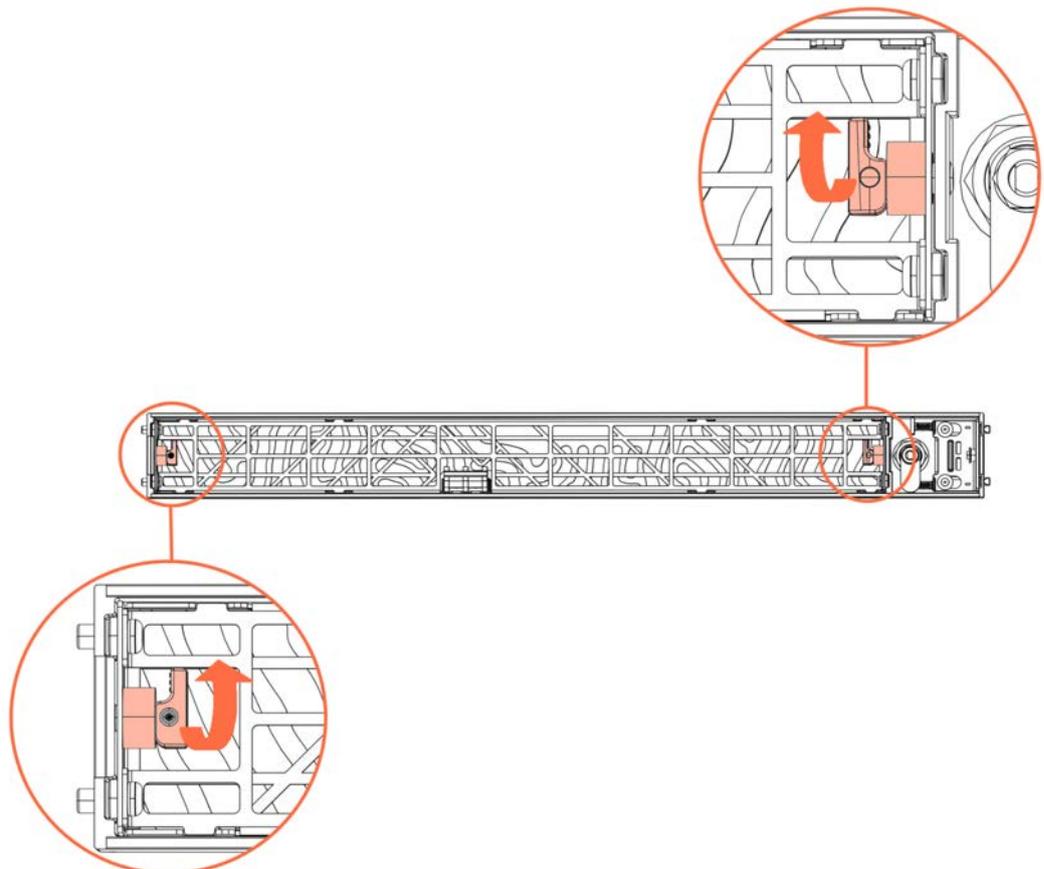
2. Tighten the screws.



3. Put the filter assembly back into the bezel.

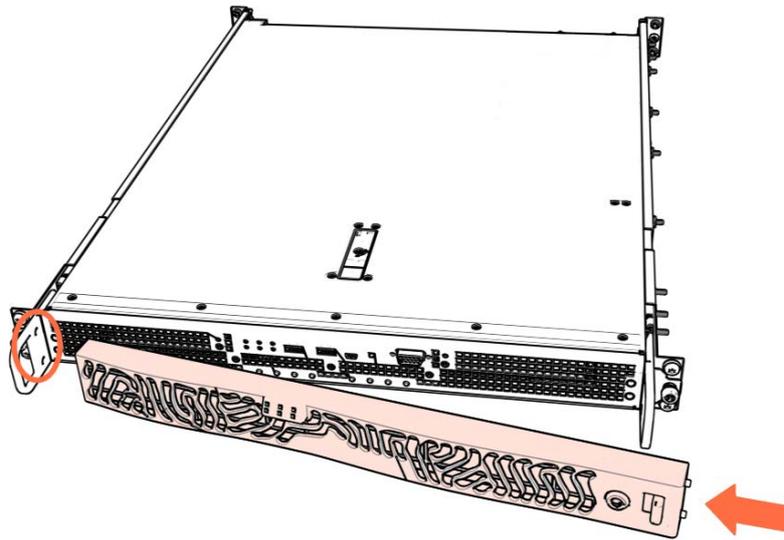


4. Rotate the plungers downwards to lock the filter assembly.

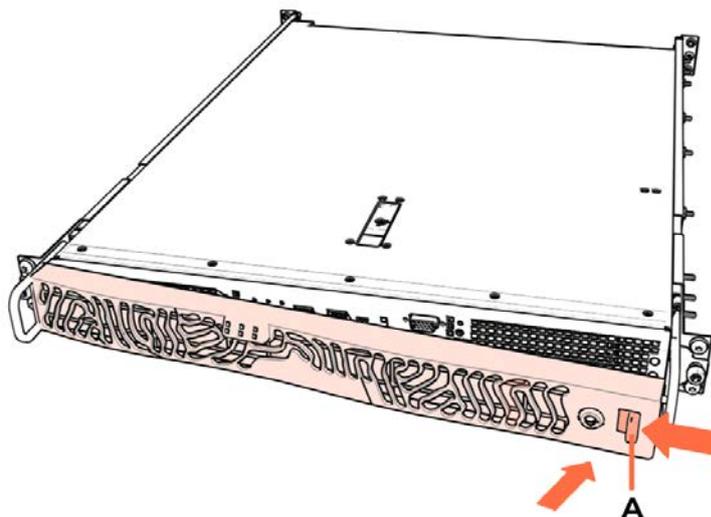


2. Install the bezel

1. Insert the left side of the bezel into the dedicated holes.



2. Rotate the bezel backwards.
3. Press and hold the latch (A) in.



4. Release the latch (A) when the bezel is in place.

3. Close the cabinet front door

Chapter 6. Servicing the intrusion detection switch

Important **ATTENTION:** Please read carefully the safety instructions before you perform the procedures described in this manual. See the *Multilingual Safety Notices Guide* for translated versions of the safety notices.



CAUTION C009

Cabinet doors must remain locked at all times except during maintenance operations.

Qualified personnel only are authorized to open the cabinet doors.



CAUTION C004

Static electricity can damage the server and other electronic devices.

To avoid damage, keep static-sensitive devices in their static-protective packages until you are ready to install them.

To reduce the possibility of damage from electrostatic discharge, observe the following precautions:

- Limit your movement. Movement can cause static electricity to build up around you.
- Wear an electrostatic-discharge wrist strap.
- Wear electrostatic-discharge gloves.
- Handle the device carefully, holding it by its edges or its frame.
- Do not solder joints, pins, or exposed circuitry.
- Do not leave the device where others can handle and damage it.
- While the device is still in its static-protective package, touch it to an unpainted metal surface on the outside of the server for at least 2 seconds. This drains static electricity from the package and from your body.
- Remove the device from its package and install it directly into the server without setting down the device. If it is necessary to set down the device, put it back into its static-protective package. Do not place the device on the server cover or on a metal surface.
- Take additional care when you handle devices during cold weather.
- Heating reduces indoor humidity and increases static electricity.

See Description Guide to locate the Intrusion detection switch.

6.1. Removing the intrusion detection switch

Required tools

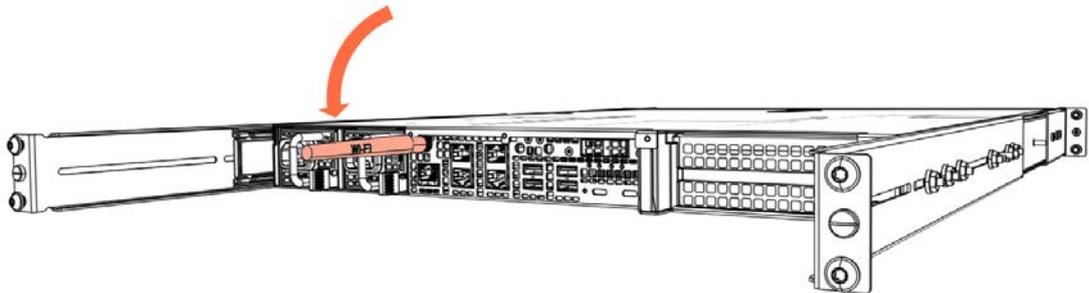
Cross-headed screwdriver

Procedure

1. **Unpack the new component on a clean ESD-protected work surface**
2. **Open the cabinet front door**
3. **Open the cabinet rear door**
4. **Power off the server**
5. **Disconnect all the cables from the server**
 1. Check all the cables are correctly labeled.
 2. Disconnect all the power cables.
 3. Disconnect all the network cables.
 4. Check all the LEDs are off.
6. **Rotate the external antennas to the horizontal position**



Rear view



7. Remove the server from the cabinet



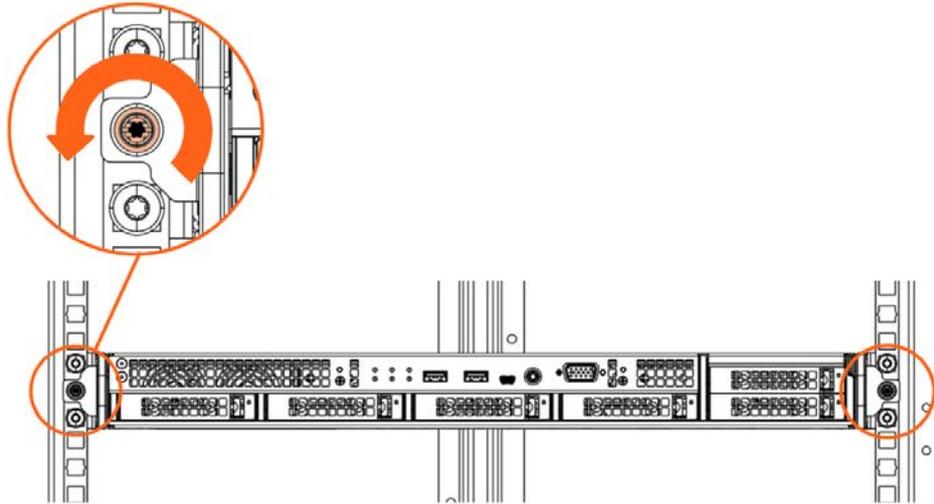
CAUTION C045

Two people are required to perform this operation.

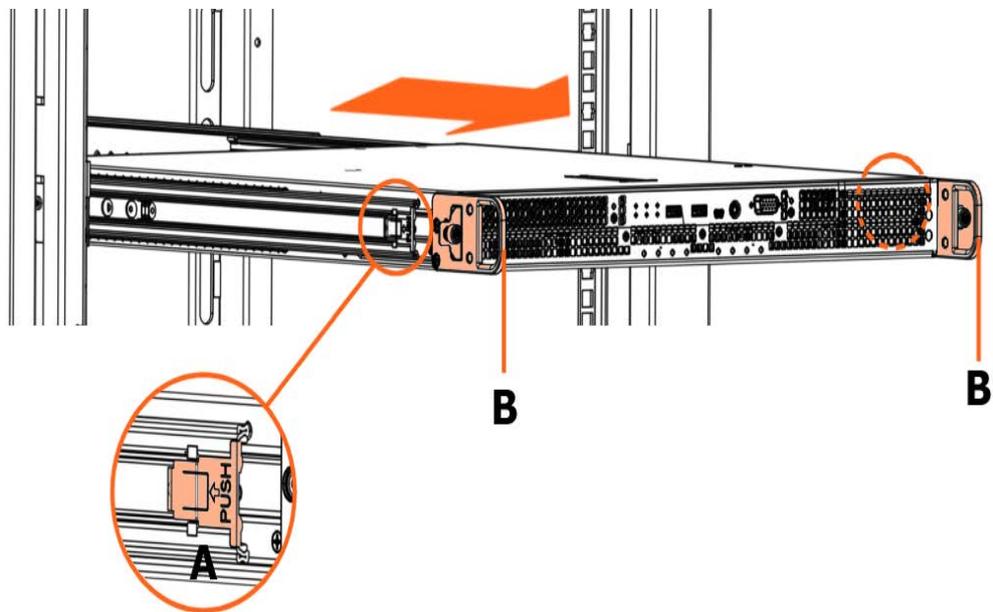
1. Loosen the captive screws to release the server.



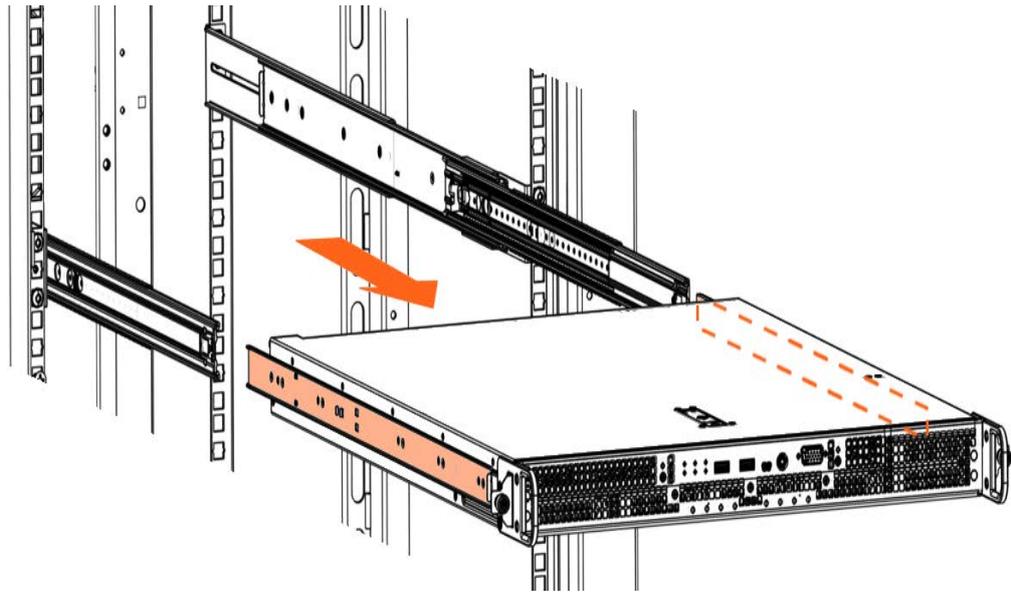
Front view



2. Pull the server using the handles (B) until it is blocked, then push the release latch (A) on each side to free the server from the rail assemblies.



3. Pull the server completely out of the cabinet.

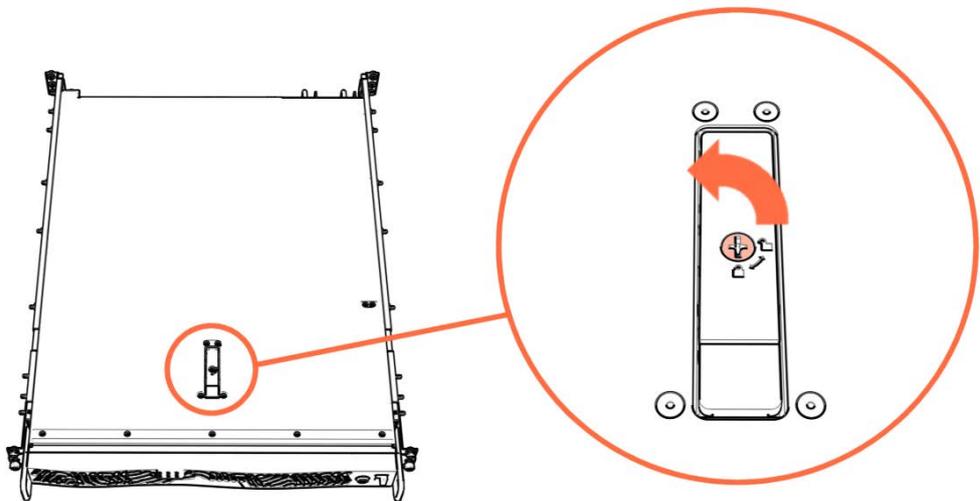


8. Remove the top cover

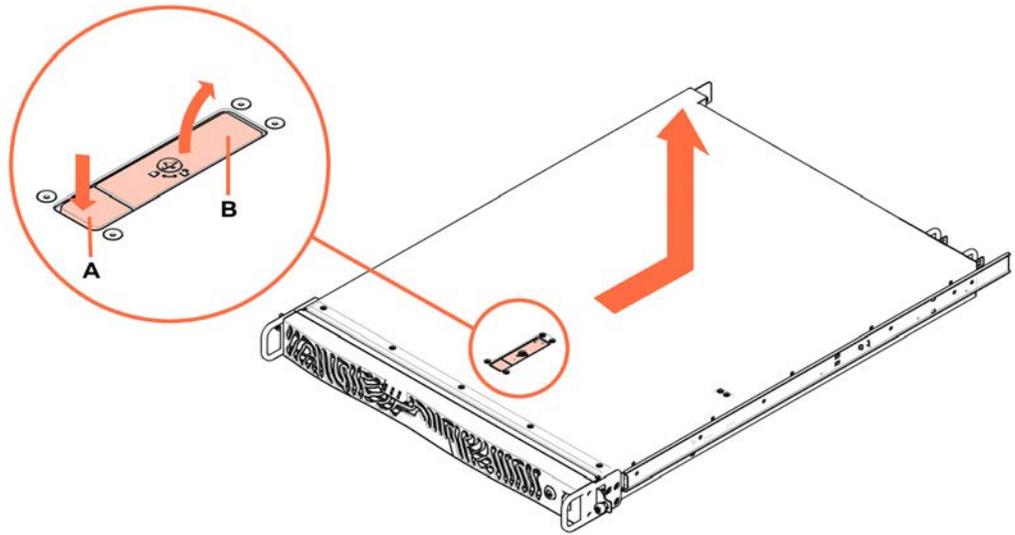
1. Loosen the captive screw to unlock the cover latch.



Top view



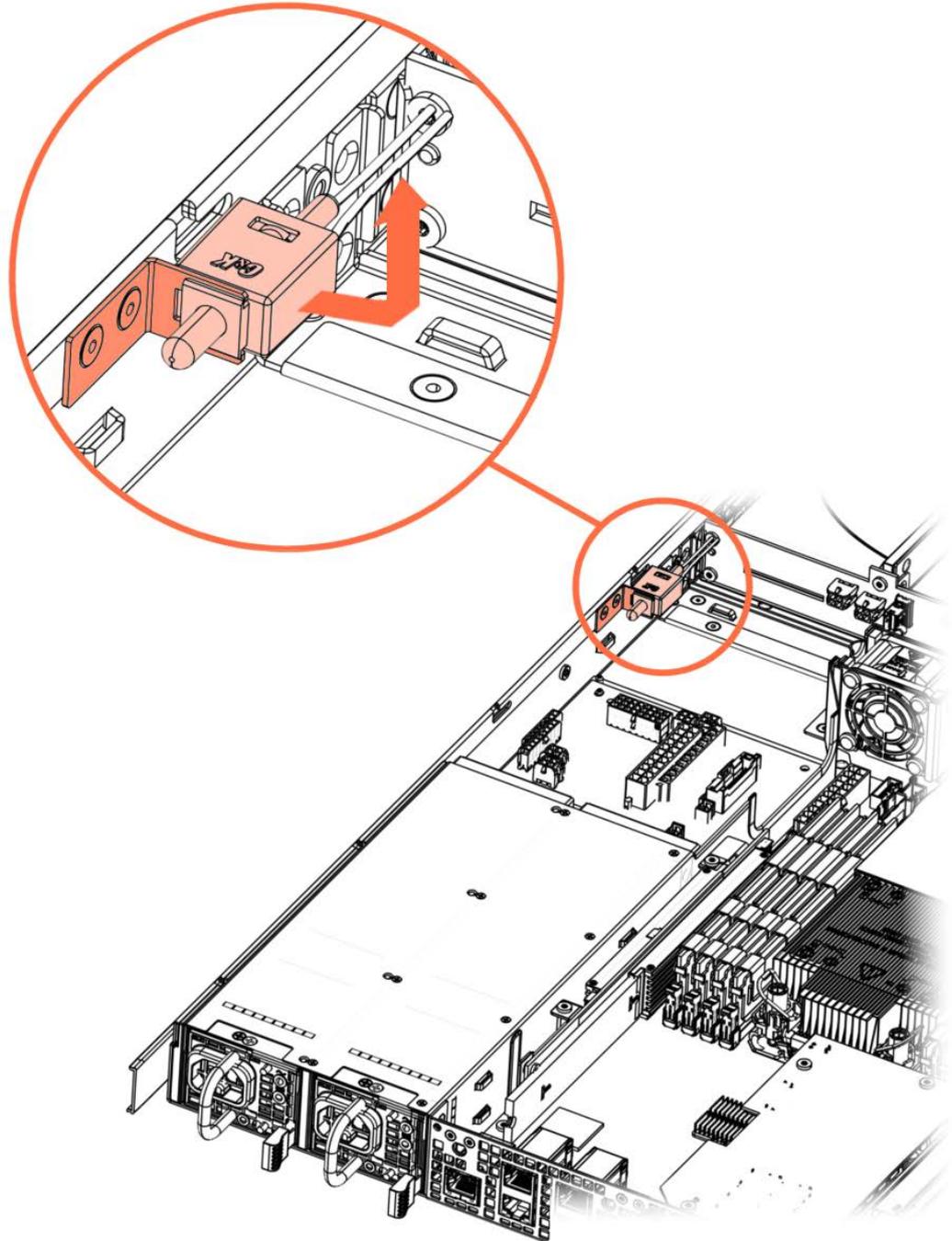
2. Push the button (A) to release the latch. The upper part (B) rises up.
3. Slide the cover back slightly and lift it up.



9. Remove the intrusion detection switch

1. Disconnect the intrusion detection switch cable from the motherboard.
2. Unclip the intrusion detection switch from the bracket and move it out and up.

 Rear view



6.2. Installing the intrusion detection switch

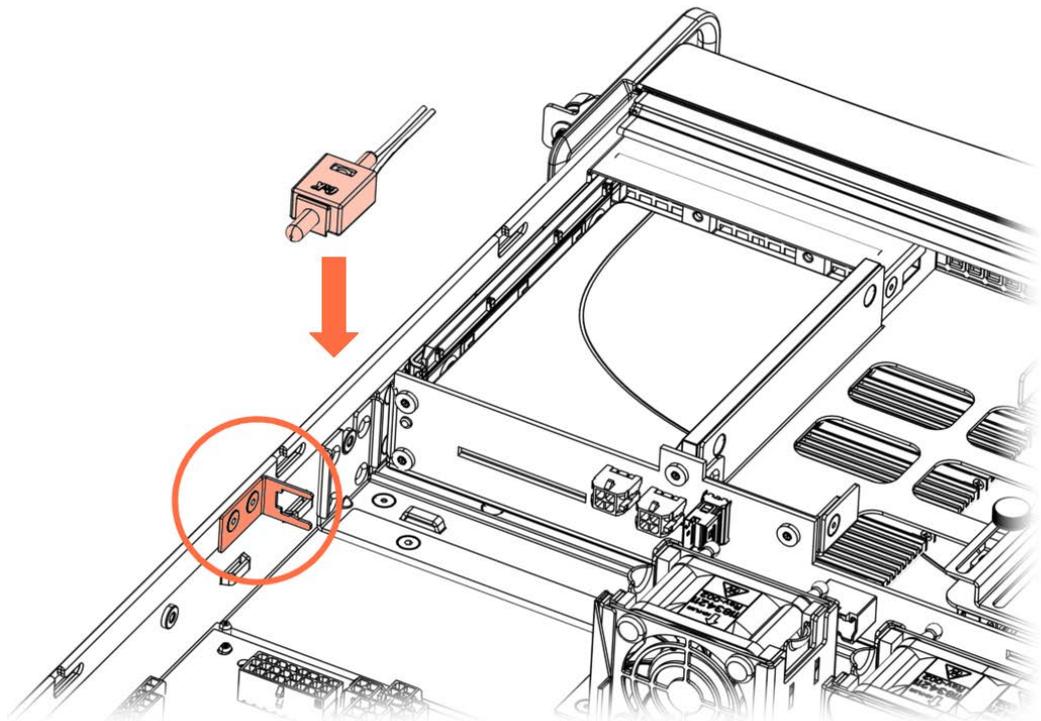
Required tools

Cross-headed screwdriver

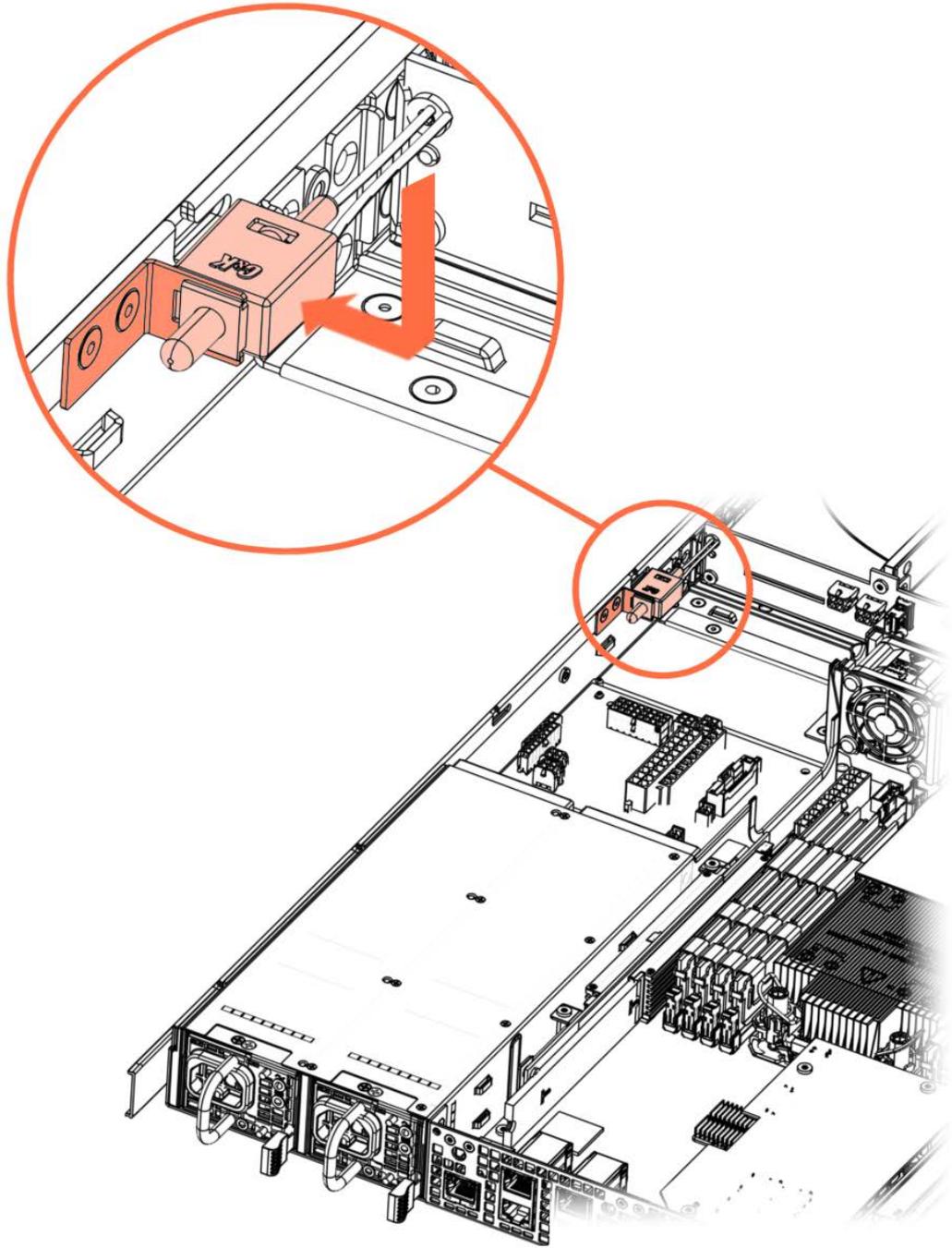
PH0 cross-headed screwdriver

Procedure

1. **Take hold of the new component**
2. **Install the intrusion detection switch**
 1. Move the intrusion detection switch down to the bracket.



2. Clip the intrusion detection switch into the bracket.

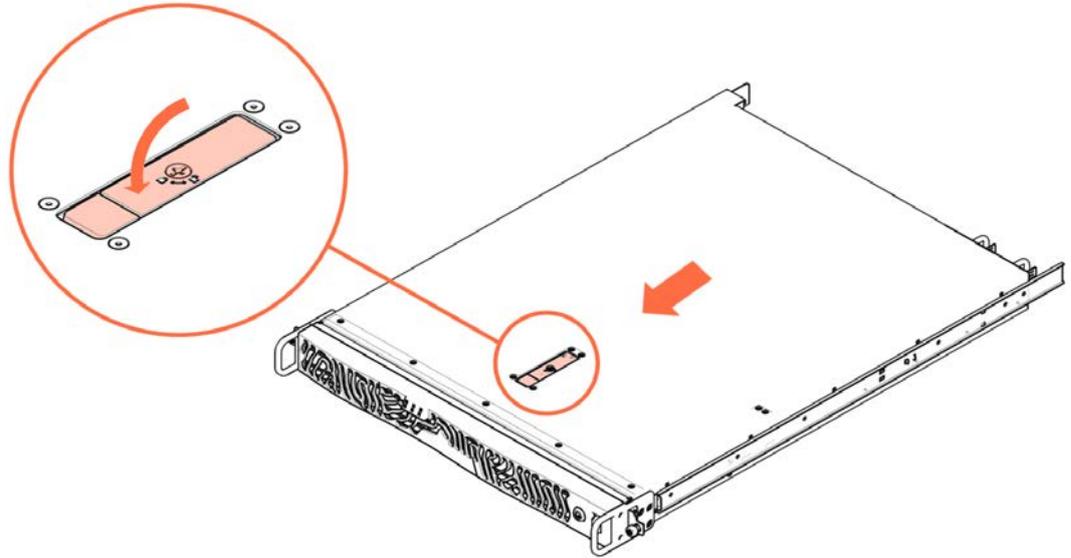


3. Connect the intrusion detection switch cable to the motherboard.

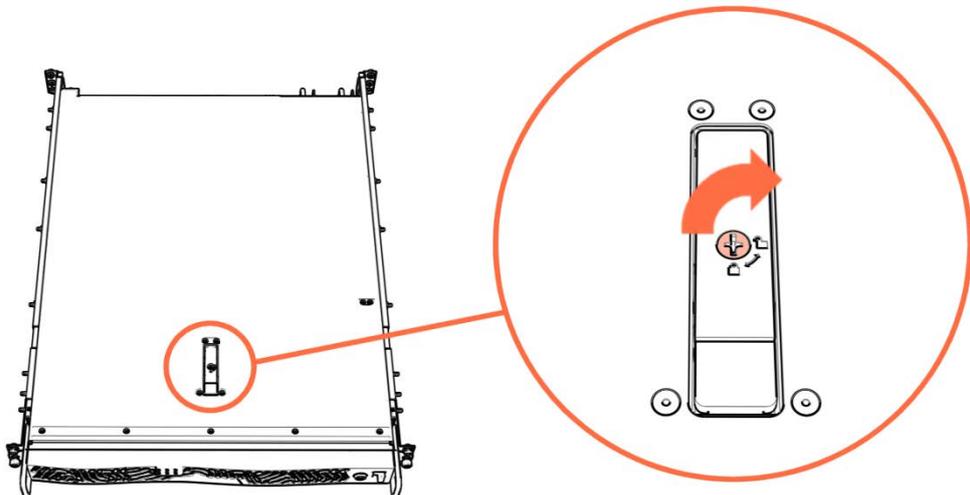
3. Install the top cover

1. Position the cover on the server and slide it forward until it is in place.
2. Lower the upper part of the cover latch.

 **Top view**



3. Tighten the captive screw to lock the cover latch.



4. Install the server in the cabinet



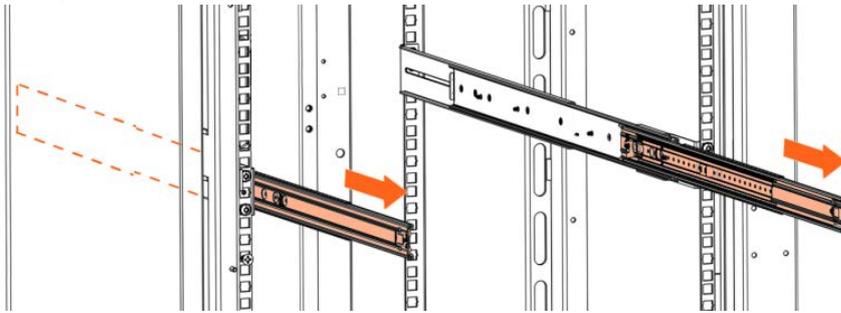
CAUTION C045

Two people are required to perform this operation.

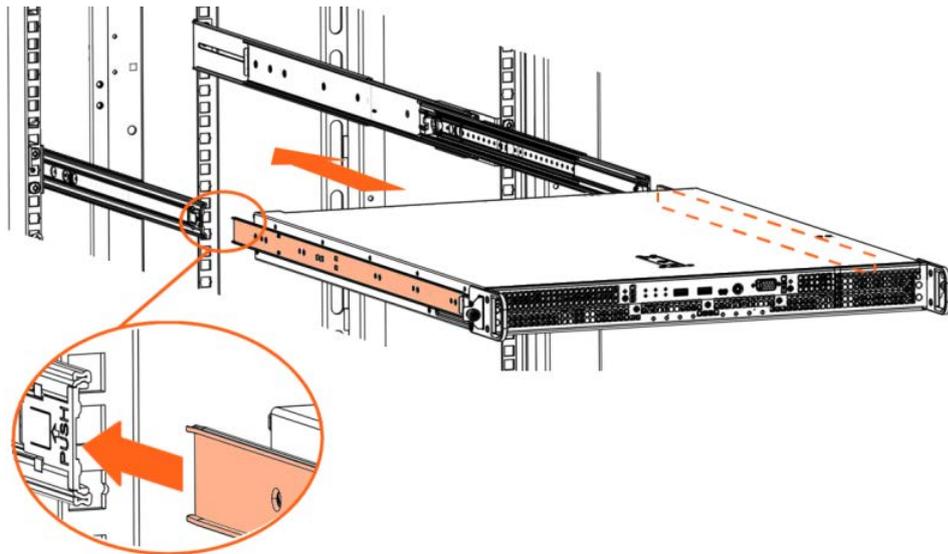
1. Pull the middle rails out.



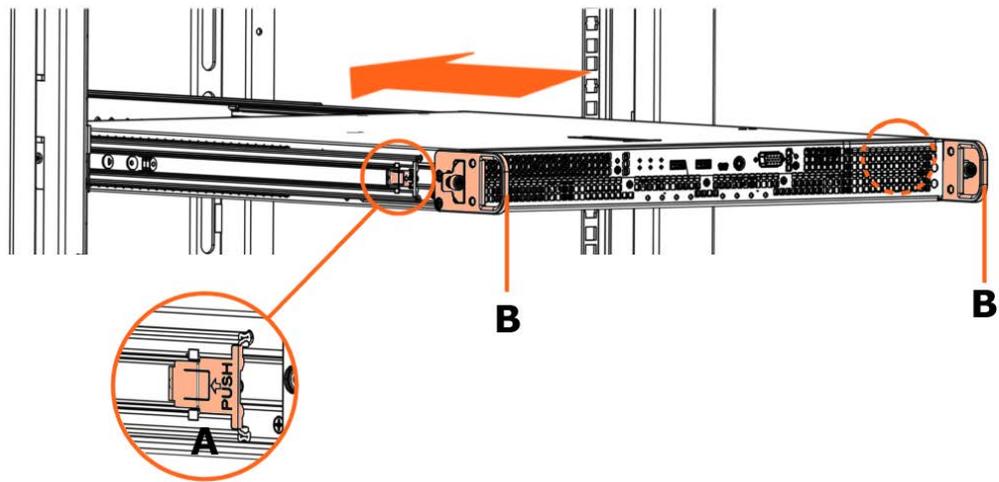
Front view



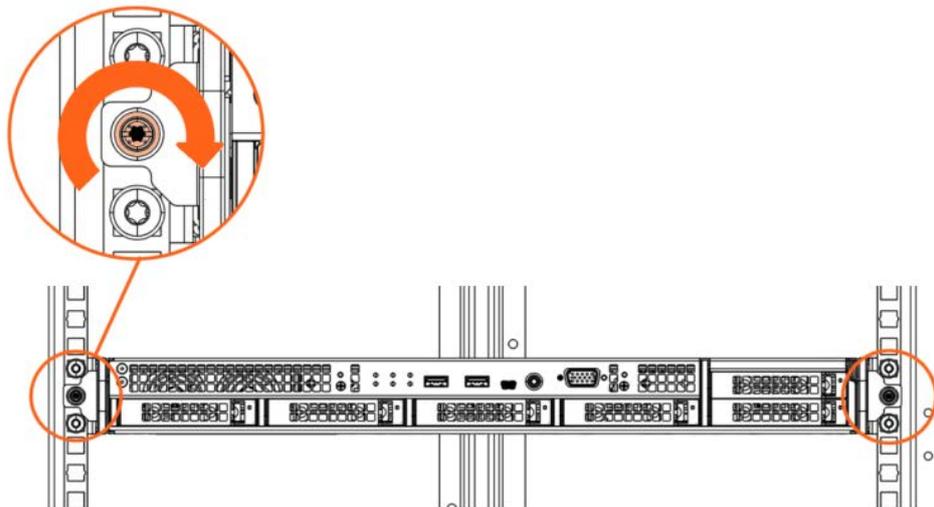
2. Slide the server into the middle rails using the inner rails attached to the server.



3. When the rail assemblies click, push the release latch (A) on each side to allow the server to be pushed completely into the cabinet using the handles (B).

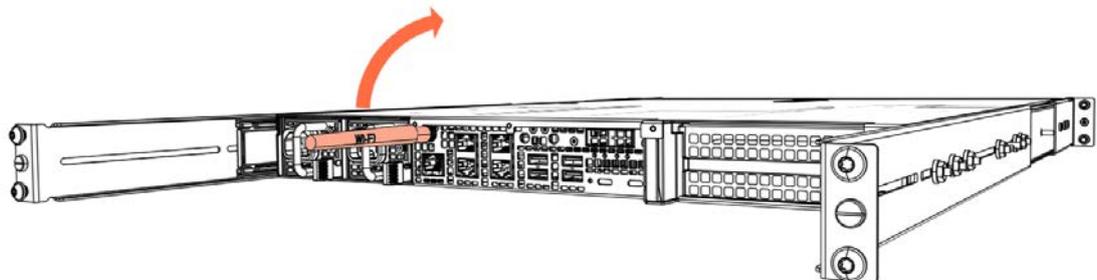


4. Tighten the captive screws to secure the server into place.



5. Rotate the external antennas to the vertical position

 Rear view



- 6. Connect all the cables to the server**
- 7. Power on the server**
- 8. Close the cabinet rear door**
- 9. Close the cabinet front door**

Chapter 7. Changing the type of front M.2 NVMe disk

Important **ATTENTION:** Please read carefully the safety instructions before you perform the procedures described in this manual. See the *Multilingual Safety Notices Guide* for translated versions of the safety notices.



CAUTION C009

Cabinet doors must remain locked at all times except during maintenance operations.

Qualified personnel only are authorized to open the cabinet doors.



CAUTION C004

Static electricity can damage the server and other electronic devices.

To avoid damage, keep static-sensitive devices in their static-protective packages until you are ready to install them.

To reduce the possibility of damage from electrostatic discharge, observe the following precautions:

- Limit your movement. Movement can cause static electricity to build up around you.
- Wear an electrostatic-discharge wrist strap.
- Wear electrostatic-discharge gloves.
- Handle the device carefully, holding it by its edges or its frame.
- Do not solder joints, pins, or exposed circuitry.
- Do not leave the device where others can handle and damage it.
- While the device is still in its static-protective package, touch it to an unpainted metal surface on the outside of the server for at least 2 seconds. This drains static electricity from the package and from your body.
- Remove the device from its package and install it directly into the server without setting down the device. If it is necessary to set down the device, put it back into its static-protective package. Do not place the device on the server cover or on a metal surface.
- Take additional care when you handle devices during cold weather.
- Heating reduces indoor humidity and increases static electricity.

See Description Guide to locate the disks.

7.1. Removing the front M.2 NVMe disk assembly

Note The following images apply to 110 mm M.2 NVMe disks. The procedure remains the same for 80 mm disks.

Required tools

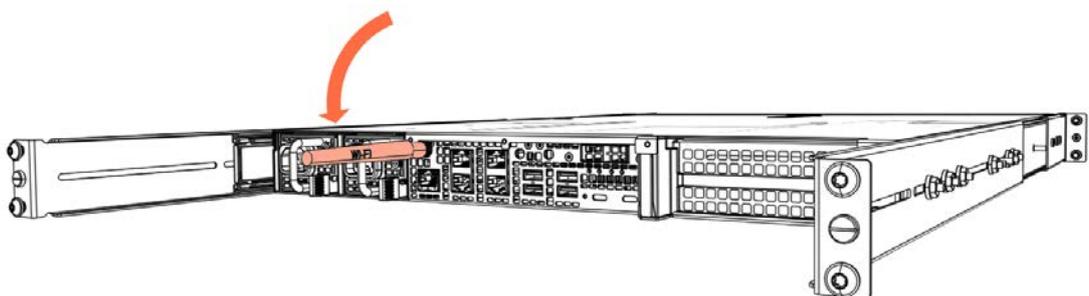
Cross-headed screwdriver

PH0 cross-headed screwdriver

Procedure

1. **Unpack the new component on a clean ESD-protected work surface**
2. **Open the cabinet front door**
3. **Open the cabinet rear door**
4. **Power off the server**
5. **Disconnect all the cables from the server**
 1. Check all the cables are correctly labeled.
 2. Disconnect all the power cables.
 3. Disconnect all the network cables.
 4. Check all the LEDs are off.
6. **Rotate the external antennas to the horizontal position**

 **Rear view**



7. Remove the server from the cabinet



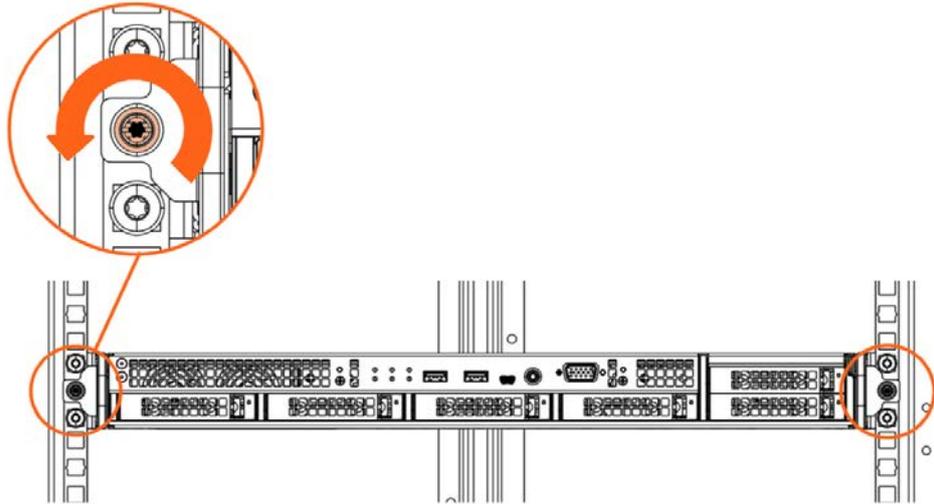
CAUTION C045

Two people are required to perform this operation.

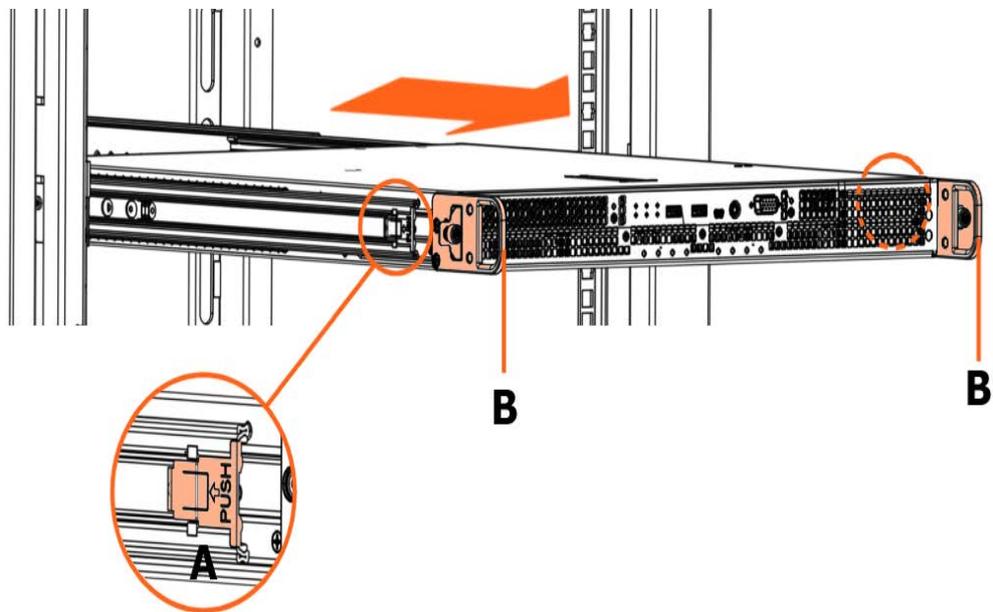
1. Loosen the captive screws to release the server.



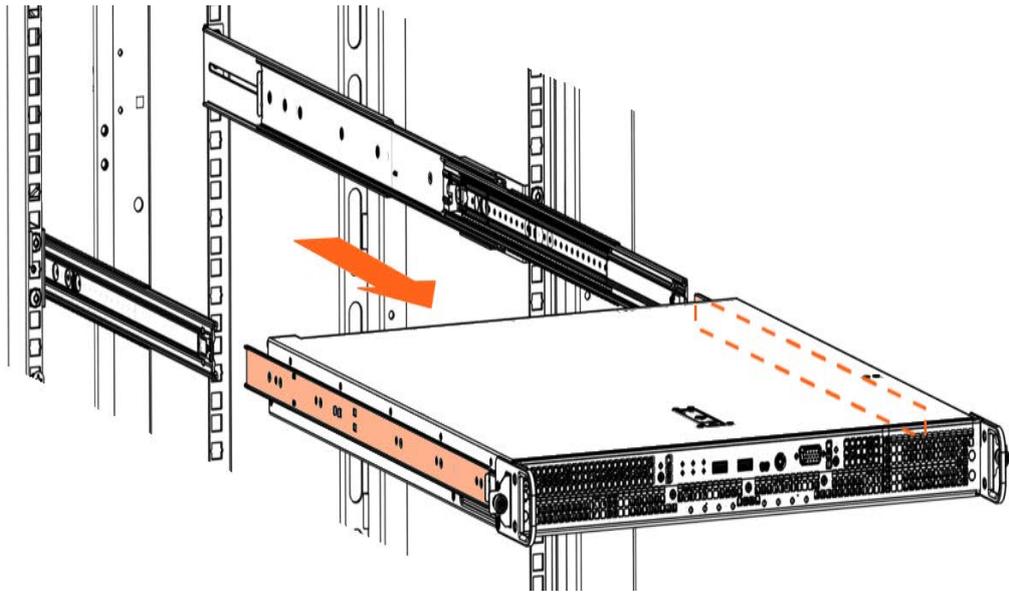
Front view



2. Pull the server using the handles (B) until it is blocked, then push the release latch (A) on each side to free the server from the rail assemblies.



3. Pull the server completely out of the cabinet.

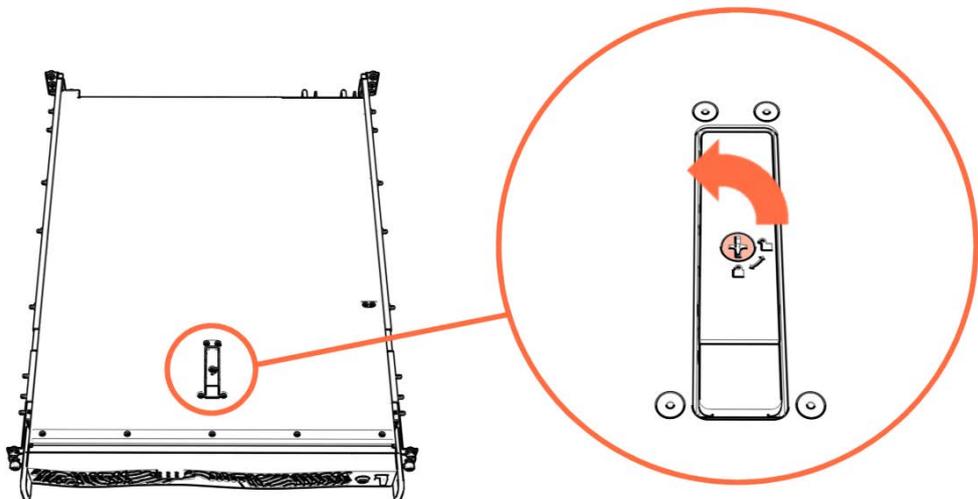


8. Remove the top cover

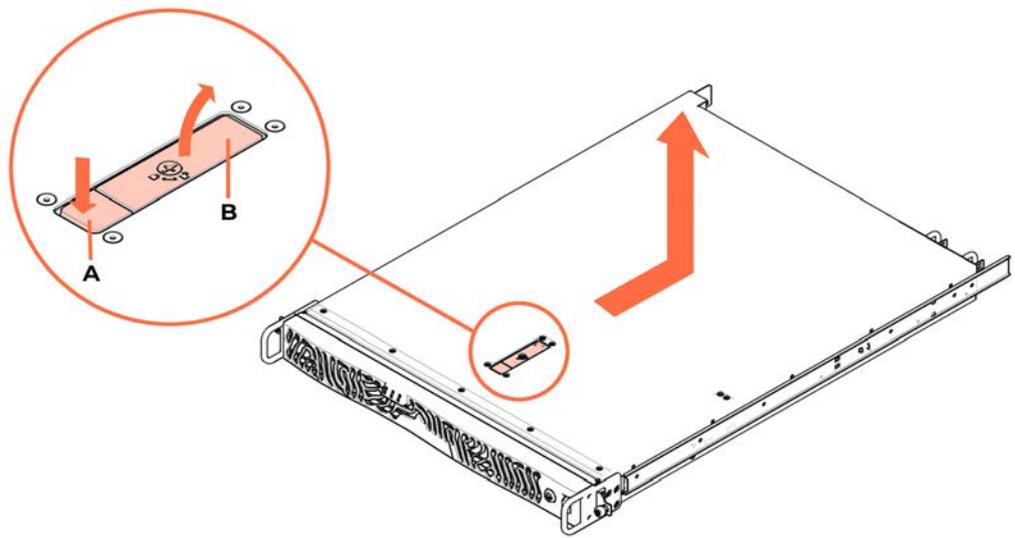
1. Loosen the captive screw to unlock the cover latch.



Top view



2. Push the button (A) to release the latch. The upper part (B) rises up.
3. Slide the cover back slightly and lift it up.

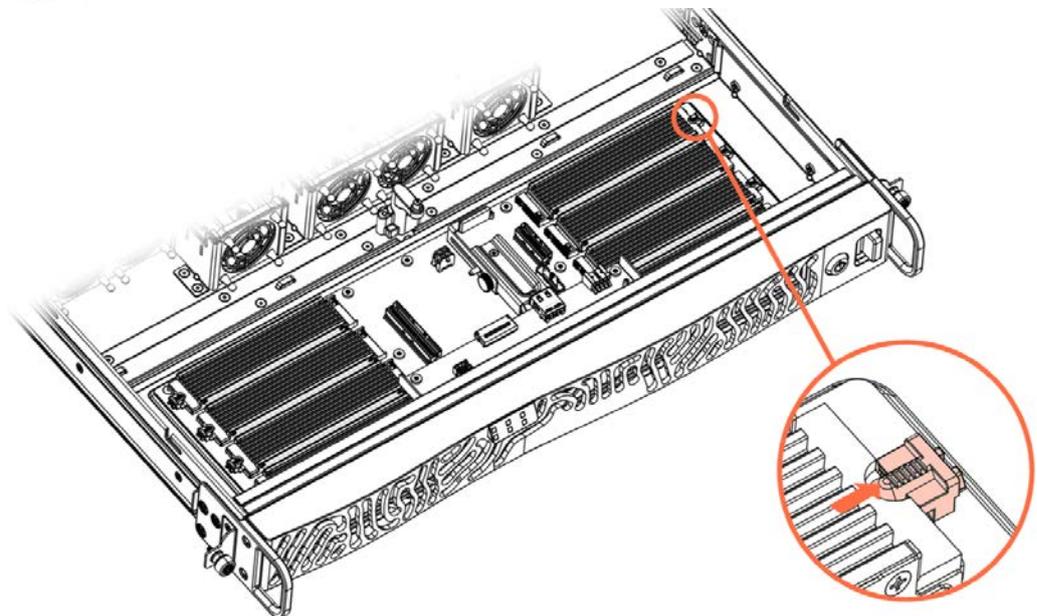


9. Remove the disk assembly

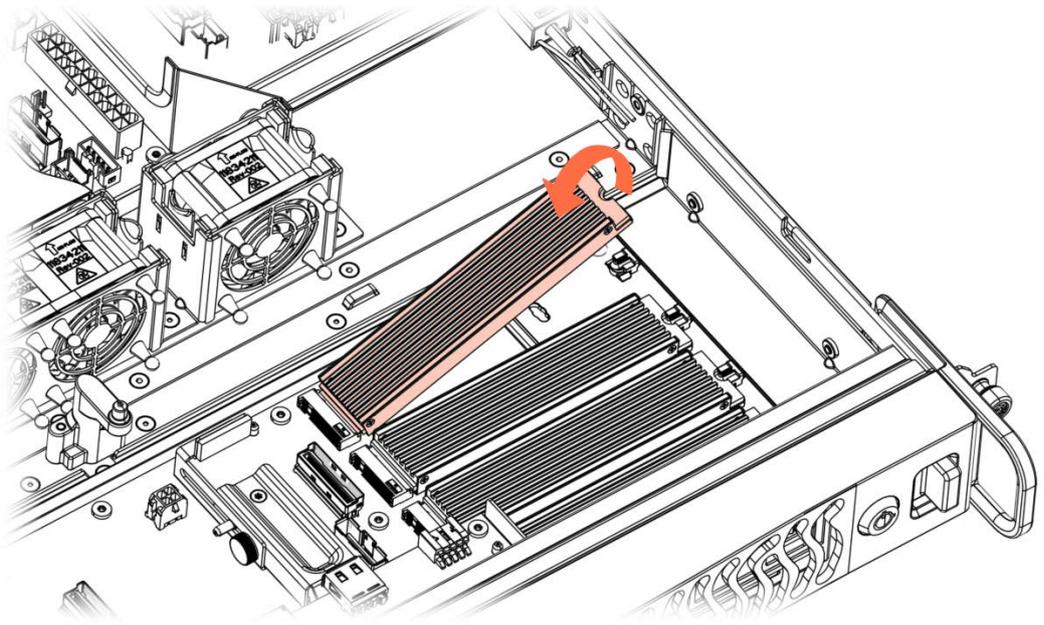
1. Push the latch to unlock the disk assembly.



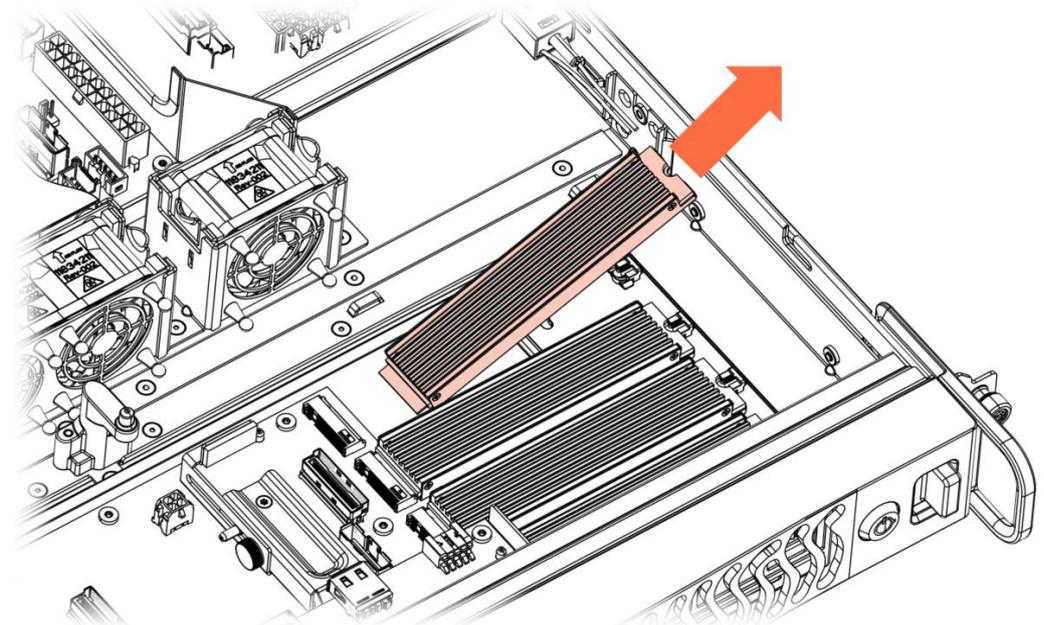
Front view



2. Raise the disk assembly up to about 20° above the horizontal.

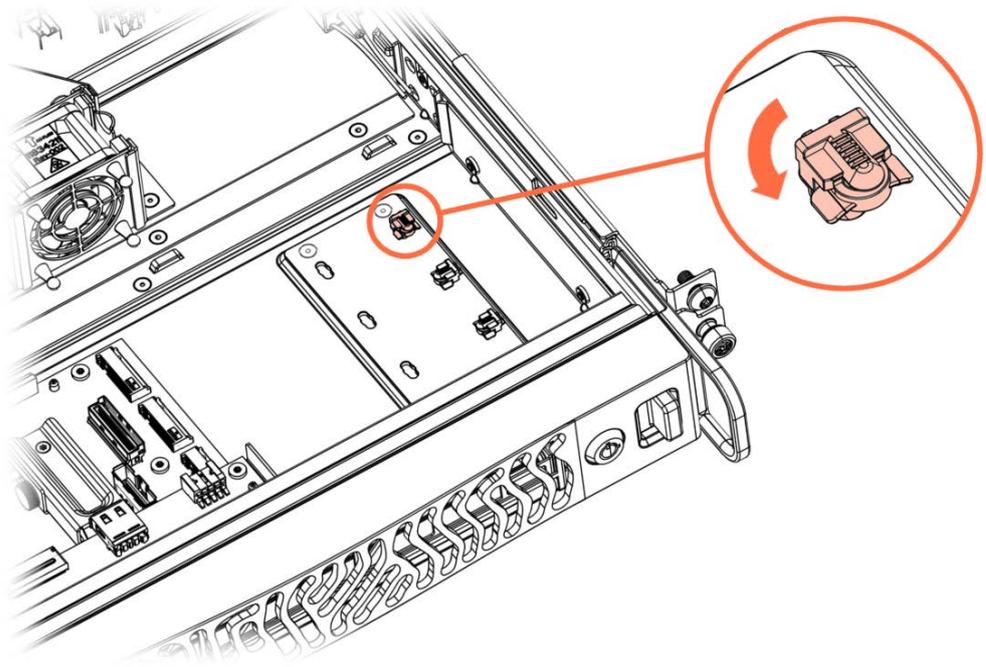


3. Remove the disk assembly.

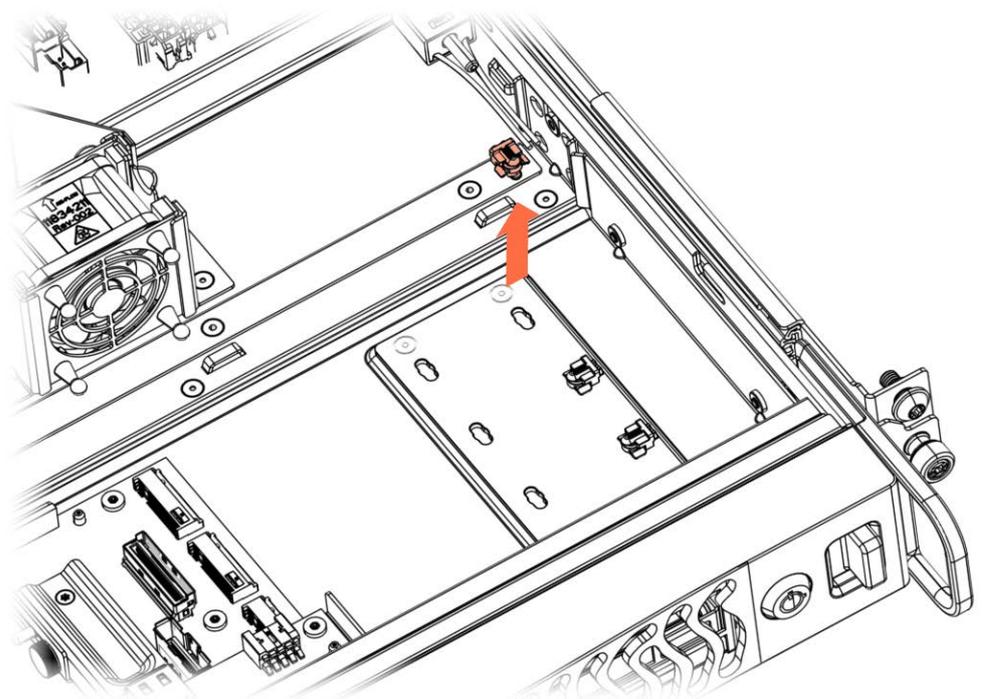


10. Remove the latch

1. Rotate the latch 90°.



2. Pull the latch up.



7.2. Installing the front M.2 NVMe disk assembly

Note The following images apply to 80 mm M.2 NVMe disks. The procedure remains the same for 110 mm disks.

Required tools

Cross-headed screwdriver

PH0 cross-headed screwdriver

Procedure

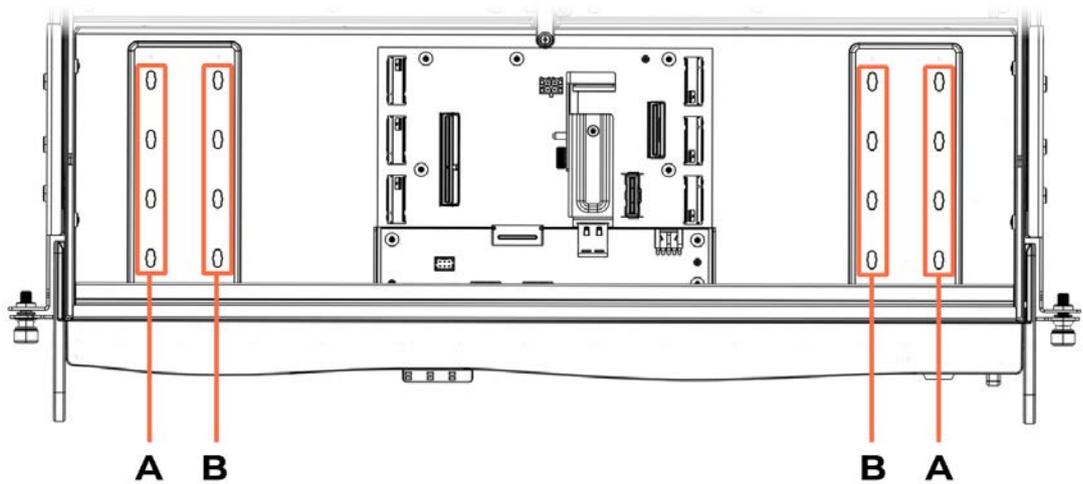
1. Take hold of the new component

2. Install the new latch

1. Locate the correct position for the latch.

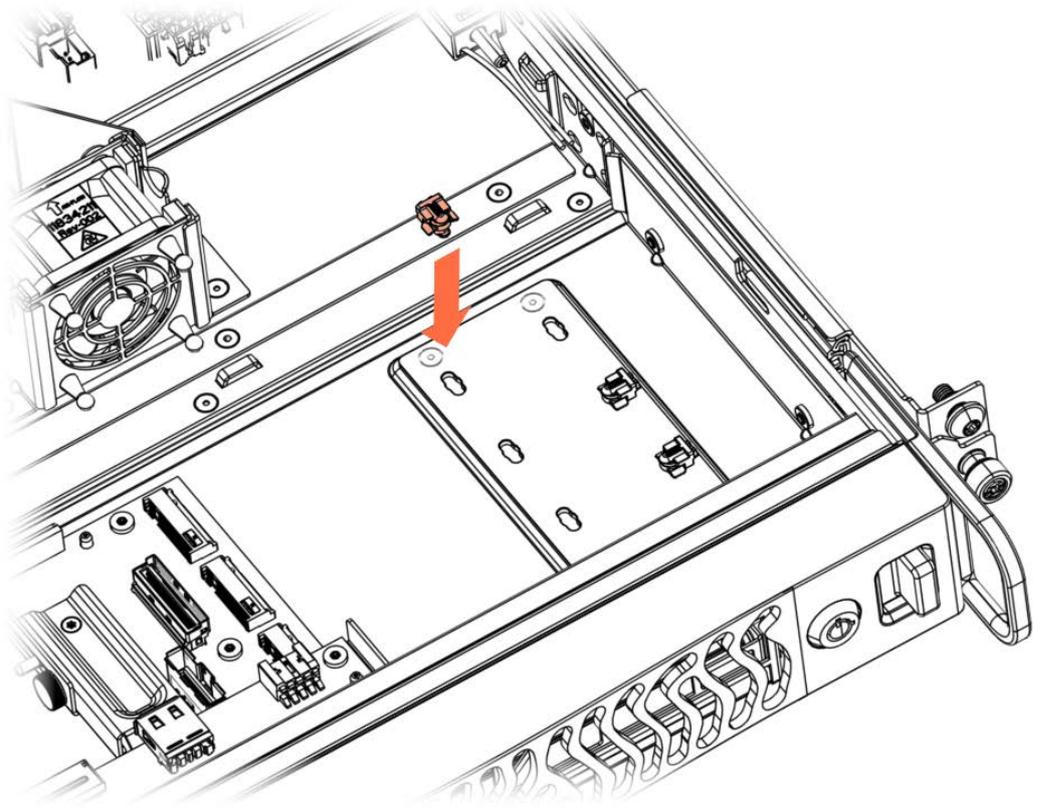


Top view

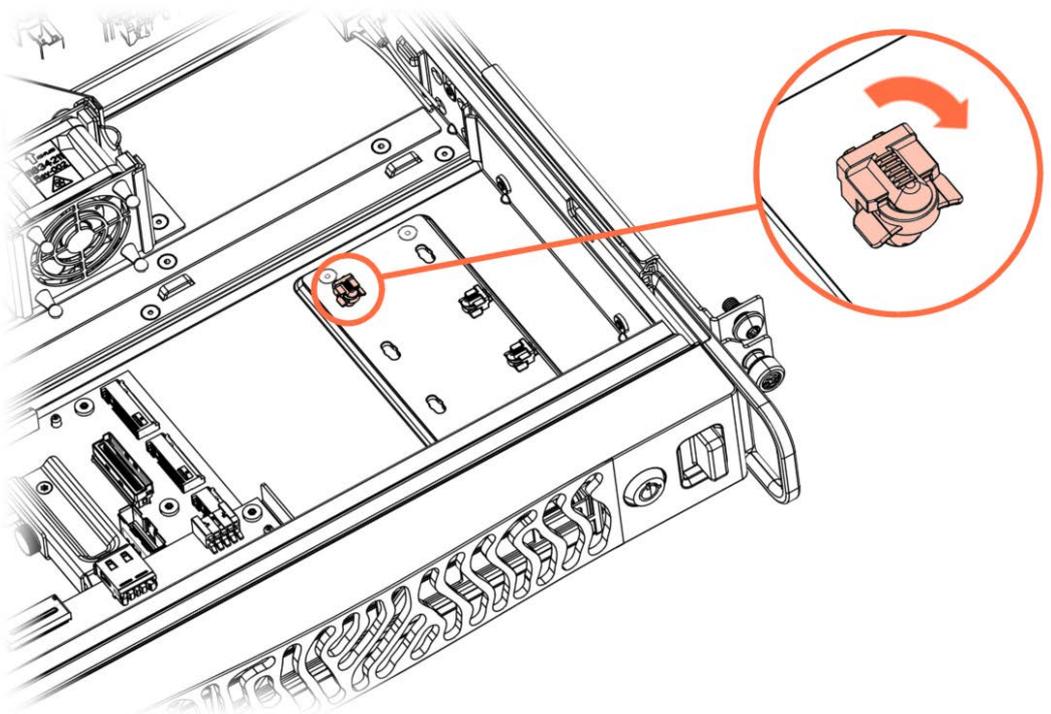


Mark	Description
A	Latch position for 110 mm M.2 NVMe disks
B	Latch position for 80 mm M.2 NVMe disks

2. Insert the latch in the slot corresponding to the disk size.

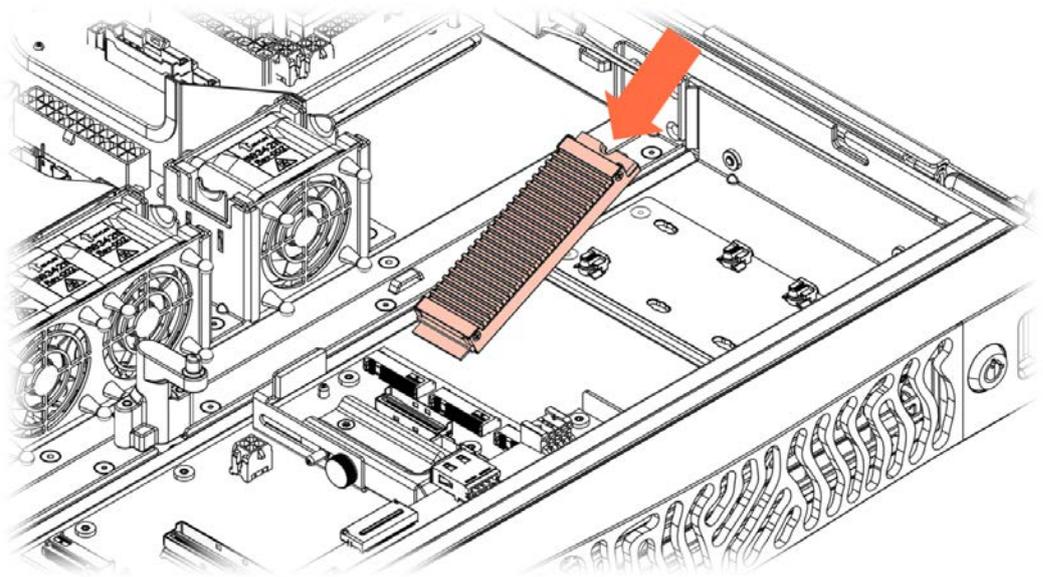


3. Rotate the latch 90°.

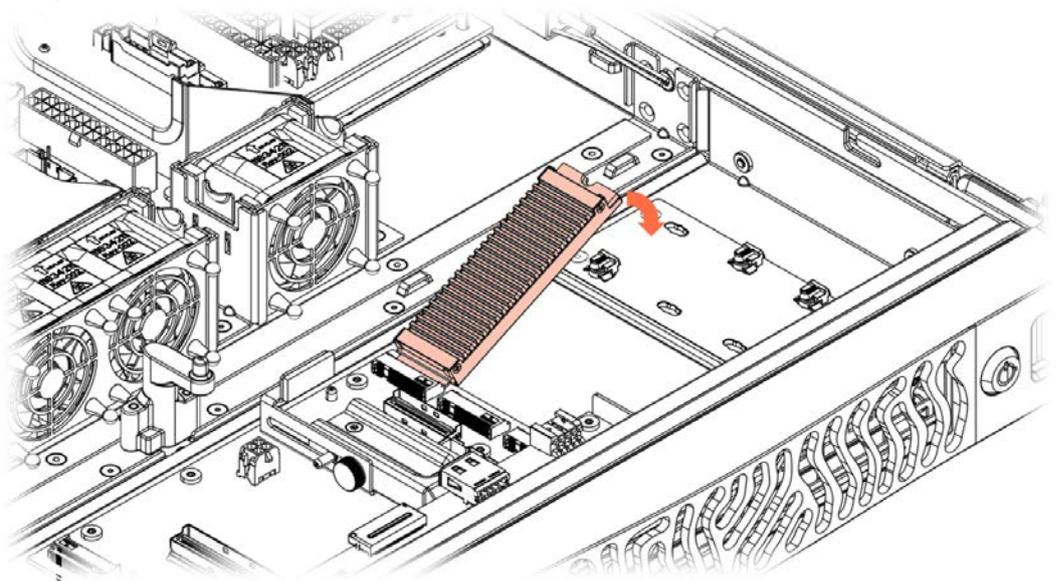


3. Install the M.2 NVMe disk assembly

1. Insert the disk at an angle around 20° to the horizontal.



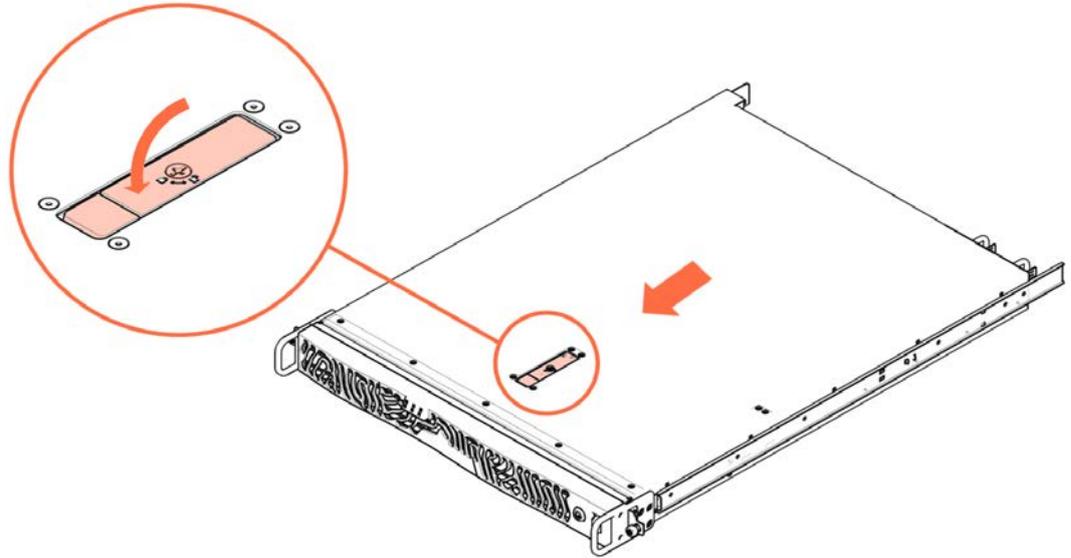
2. Lower the disk down.



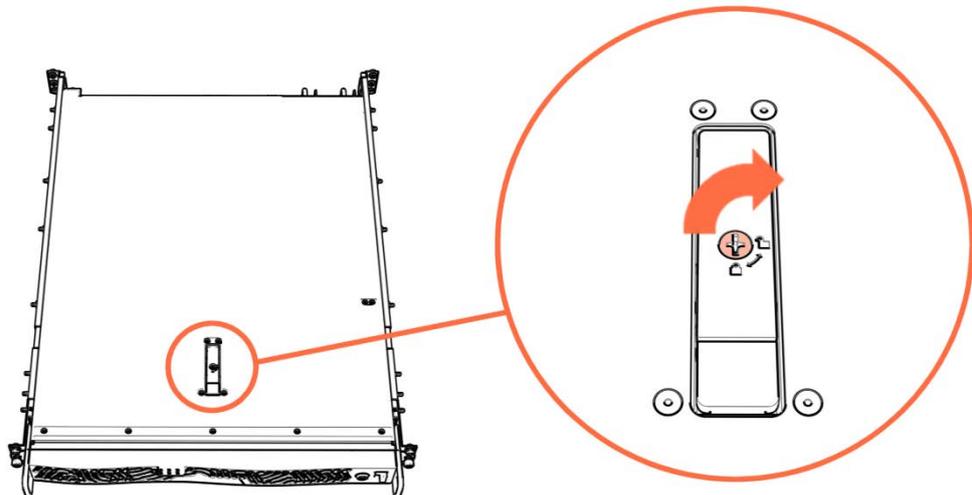
4. Install the top cover

1. Position the cover on the server and slide it forward until it is in place.
2. Lower the upper part of the cover latch.

 **Top view**



3. Tighten the captive screw to lock the cover latch.



5. Install the server in the cabinet



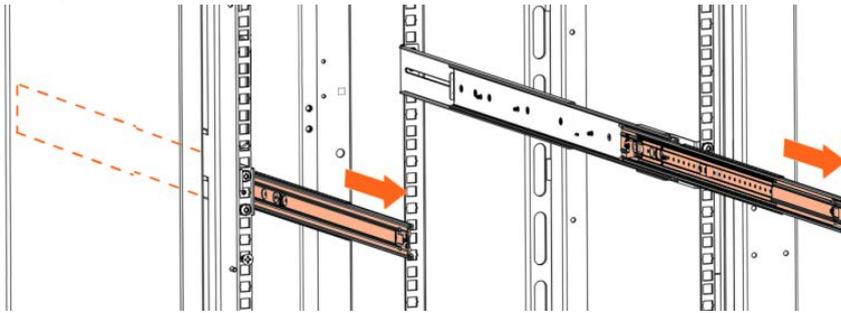
CAUTION C045

Two people are required to perform this operation.

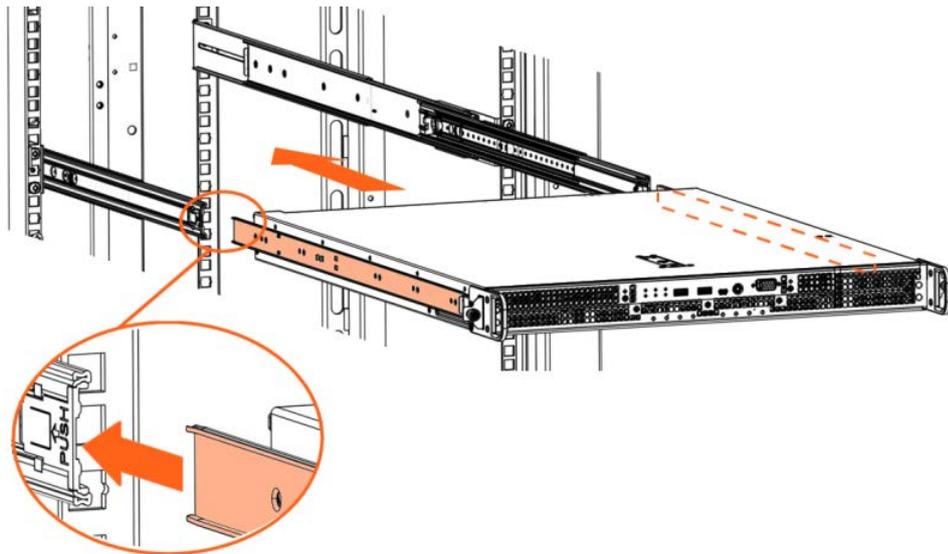
1. Pull the middle rails out.



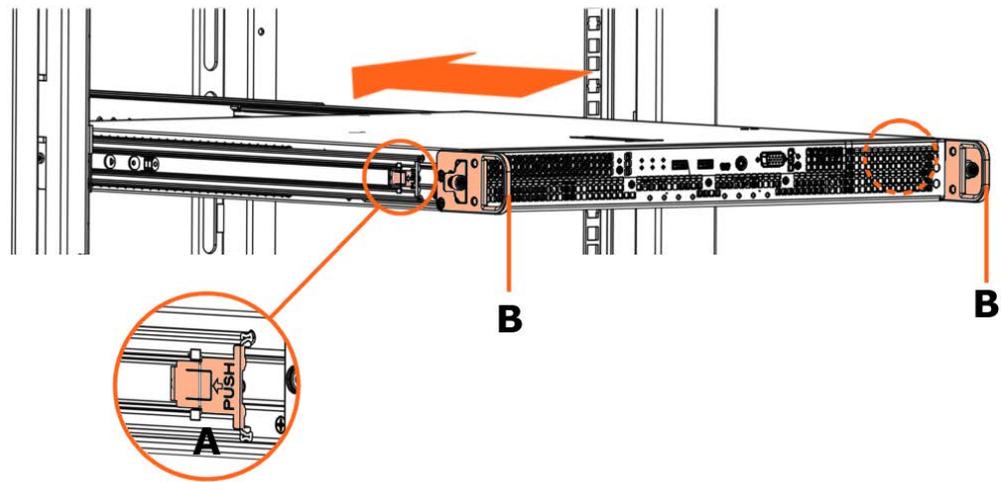
Front view



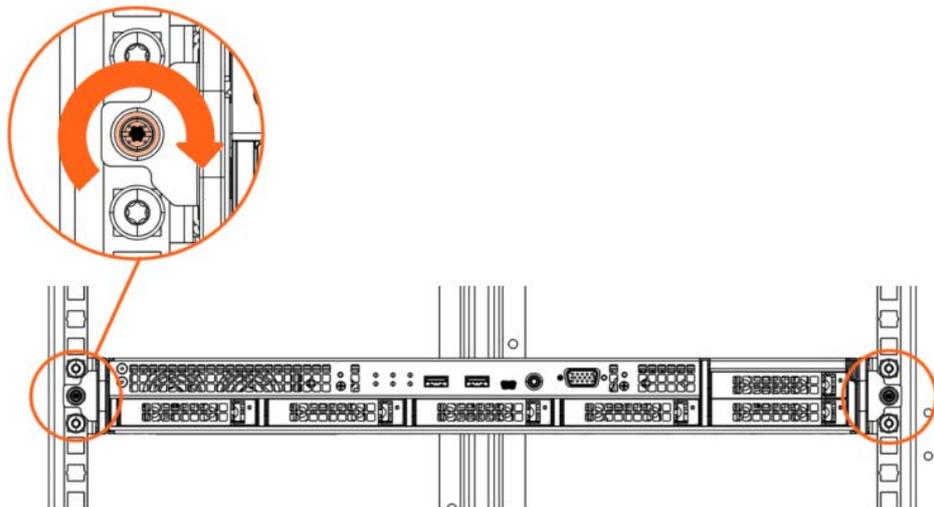
2. Slide the server into the middle rails using the inner rails attached to the server.



3. When the rail assemblies click, push the release latch (A) on each side to allow the server to be pushed completely into the cabinet using the handles (B).

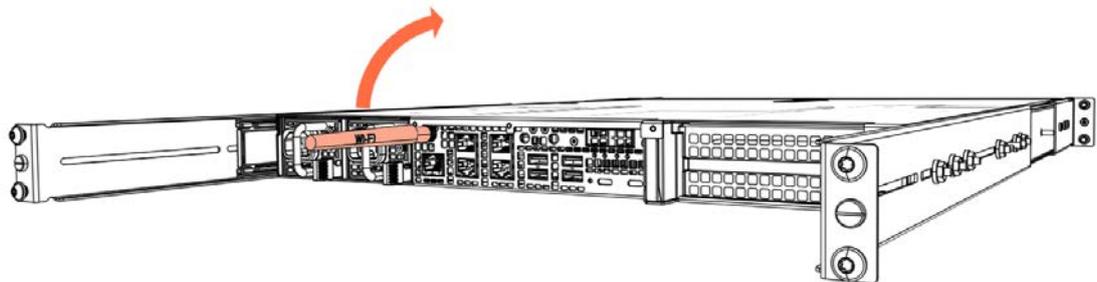


4. Tighten the captive screws to secure the server into place.



6. Rotate the external antennas to the vertical position

 Rear view



- 7. Connect all the cables to the server**
- 8. Power on the server**
- 9. Close the cabinet rear door**
- 10. Close the cabinet front door**

Chapter 8. Firmware maintenance tasks

8.1. Rebooting the Baseboard Management Controller (BMC)

See SHC Reference Guide for more information.

Prerequisites

- A laptop is connected to the server via the LAN
- An IP address is available for the server
- Chrome or Firefox web browsers are recommended
- Setting the language of the web browser to English is recommended

Procedure

Note Only users with Administrator privilege have access to this feature.

1. Connect to the Server Hardware Console (SHC).
2. From the **Control** tab, click **Reboot BMC**. The **Reboot BMC** page opens.
3. Click the **Reboot BMC** button and confirm.

Note When the BMC is rebooted the browser loses contact with the BMC for several minutes. The log in procedure must be performed when the BMC is back online. If the log in button is not available, close the browser, reopen it and enter the BMC IP address.

8.2. Resetting BMC settings to default values

Important It is strongly recommended to shut down the system before resetting the setting values.

Resetting the BMC to default values results in:

- All BMC settings will be deleted including: BMC account data, changed passwords, policies, LDAP configurations, network static addresses and time and date.
- All BMC logs will be removed
- Currently active sessions on all network interfaces will be disconnected
- The BMC login will be set to the default login, as shown below.

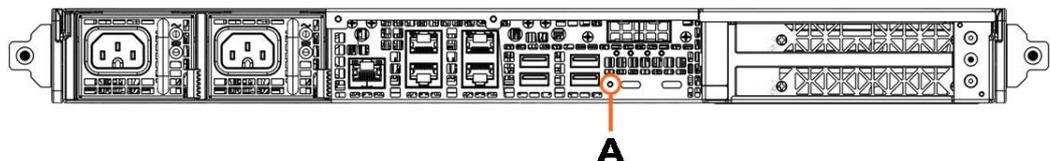
SHC default user account	
Username	admin
Password	OpenBmc* The 0 in the default password is the number zero.

8.2.1. Resetting with the factory reset button

1. Locate the factory reset button (A).



Rear view



2. Push in the button using a pointed object for more than ten seconds and release. The settings are reset and the BMC reboots.
3. Set up remote access to the BMC.

See Getting Started Guide for more information.

4. Use the default login to log on to the SHC.

8.2.2. Resetting with the Server Hardware Console (SHC)

See SHC Reference Guide for more information.

Prerequisites

- A laptop is connected to the server via the LAN
- An IP address is available for the server
- Chrome or Firefox web browsers are recommended
- Setting the language of the web browser to English is recommended

Procedure

Note Only users with SupportUser privilege have access to this feature.

1. Connect to the Server Hardware Console (SHC).
2. From the **Control** tab, click **Reset to default**. The **Reset to default** page opens.
3. Select **Reset BMC settings**.
4. Click **Reset**.
5. Carefully read the caution points displayed in the pop-up window.

If required, it is possible to select the option **Continue without shutting down the system** to maintain the server on.

Important **Resetting without shutting down the system might cause an unrecoverable error.**

6. Click **Reset BMC settings**.
7. Use the default login to connect to the SHC after the reset of the BMC settings and the BMC reboot.

8.3. Resetting the BIOS settings to default values

Important It is strongly recommended to shut down the system before resetting the setting values.

See SHC Reference Guide for more information.

All manual settings will be deleted after resetting the BIOS settings to default values.

Prerequisites

- A laptop is connected to the server via the LAN
- An IP address is available for the server
- Chrome or Firefox web browsers are recommended
- Setting the language of the web browser to English is recommended

Procedure

Note Only users with SupportUser privilege have access to this feature.

1. Connect to the Server Hardware Console (SHC).
2. From the **Control** tab, click **Reset to default**. The **Reset to default** page opens.
3. Select **Reset BMC settings**.
4. Click **Reset**.
5. Carefully read the caution points displayed in the pop-up window.

If required, it is possible to select the option **Continue without shutting down the system** to maintain the server on.

Important Resetting without shutting down the system might cause an unrecoverable error.

6. Click **Reset BIOS settings**.

8.4. Recovering the BMC firmware

This sections details the operations to recover the BMC main image.

Prerequisites

- A laptop is connected to the server via the LAN
- An IP address is available for the server
- Chrome or Firefox web browsers are recommended
- Setting the language of the web browser to English is recommended
- The server must be powered off

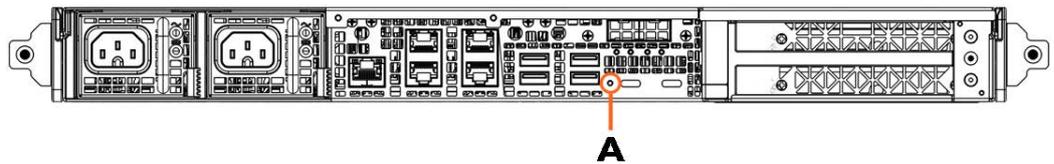
Procedure

1. Boot the BMC on the recovery image

1. Locate BMC firmware recovery button (A).



Rear view



2. Push the button in using a pointed object and release.

2. Connect to the SHC when it is reachable

Note BIOS and FPGA firmwares cannot be updated in recovery mode.

3. Update the main BMC firmware

1. From the **Overview page**, check the **Current boot** is Recovery.

Overview

BMC time
2024-08-09 13:09:35 UTC

Edit network settings → SOL console →

BMC information

Firmware version 147.00.1349
Secure boot status ENABLED
Current boot Recovery
Security State SECURED
Key ID for boot 1

Server information

Model BullSequana Edge2
Serial number XAN-ORD-00007
Manufacturer BULL
BIOS version BIOS_ESR160.37.01.001

Network information

eth0
Hostname localhost
MAC address 08:00:38:bd:68:9e
IP address xx.xx.xx.xxx

Power consumption

Power consumption 172 W
Power cap Disabled

2. From the **Configuration** tab, click **Firmware**. The **Firmware** page opens.

A new Alternate_BMC line appears in the firmware version section.

Firmware

Firmware version

Component	Version
Alternate_BMC	160.02.0004
BMC	147.00.1349
FPGA	1.E.0.0

Update firmware

Image file
Only .tar, .tar.gz files accepted

Add file Force Update

Firmware update may take up 10 minutes due to security features

Start update

3. Click **Add file** to select the BMC firmware file.
4. Click **Start update**.
5. Wait for the update to be completed.

Firmware

Firmware version

Component	Version
Alternate_BMC	160.02.0004
BMC	147.00.1349
FPGA	1.E.0.0

✔ **Update completed** ✕

The code update is completed and is successful.

[Refresh](#)

12:37:49 UTC

i **Update started** ✕

Wait for the firmware update notification before making any changes.

12:32:49 UTC

Update firmware

Image file
Only .tar, .tar.gz files accepted

Add file Force Update

OMF_ORMB_160_02_0004.tar ✕

Firmware update may take up 10 minutes due to security features

Start update

Note The update may take 15 minutes or longer to complete.

4. Boot on the main BMC

1. Unplug and plug the power cable to perform an AC Off / AC On cycle of the server and to boot on the main BMC.
2. Wait for the BMC to be reachable.
3. From the **Overview page**, check the **Current boot** status and the Firmware version.

Overview

The screenshot displays the BMC Overview page. At the top, it shows the BMC time as 2024-08-09 13:09:35 UTC. There are two buttons: 'Edit network settings' and 'SOL console'. Below this, the page is divided into four sections: BMC information, Server information, Network information, and Power consumption. In the BMC information section, the 'Firmware version' (160.02.0004) and 'Current boot' (Functional) are highlighted with a red box. The Server information section lists Model (BullSequana Edge2), Manufacturer (BULL), Serial number (XAN-ORD-00007), and BIOS version (BIOS_ESR160.37.01.001). The Network information section shows interface eth0 with Hostname (localhost), MAC address (08:00:38:bd:68:9e), and IP address (XX.XX.XX.XXX). The Power consumption section shows Power consumption (172 W) and Power cap (Disabled).

BMC information			Server information	
BMC time	2024-08-09 13:09:35 UTC		Model	Manufacturer
Firmware version	Current boot		BullSequana Edge2	BULL
Secure boot status	Security State	Key ID for boot	Serial number	BIOS version
ENABLED	SECURED	1	XAN-ORD-00007	BIOS_ESR160.37.01.001

Network information			Power consumption	
eth0			Power consumption	Power cap
Hostname	MAC address	IP address	172 W	Disabled
localhost	08:00:38:bd:68:9e	XX.XX.XX.XXX		

5. Stop the SHC

