

**EVIDEN**

BullSequana EXR

# **Customer Service Guide**

The following copyright notice protects this book under Copyright laws which prohibit such actions as, but not limited to, copying, distributing, modifying, and making derivative works.

Copyright ©Bull SAS 2024, part of Eviden group. Eviden is a registered trademark of Eviden SAS. This document, or any part of it, may not be reproduced, copied, circulated and/or distributed nor quoted without prior written approval from Bull SAS.

## **Trademarks and Acknowledgements**

We acknowledge the right of proprietors of trademarks mentioned in this manual.

All brand names and software and hardware product names are subject to trademark and/or patent protection.

Quoting of brand and product names is for information purposes only and does not represent trademark and/or patent misuse.

### **Hardware**

**April 2024**

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

The information in this document is subject to change without notice. Eviden will not be liable for errors contained herein, or for incidental or consequential damages in connection with the use of this material.

---

# Table of Contents

<b>Table of Contents</b> .....	<b>i</b>
<b>Preface</b> .....	<b>p-1</b>
Intended Readers .....	p-1
<b>Chapter 1. Servicing a Power Supply Unit (PSU)</b> .....	<b>1-1</b>
1.1. Removing a PSU .....	1-2
1.2. Installing a PSU .....	1-4
<b>Chapter 2. Servicing a 2.5 inch SATA disk</b> .....	<b>2-1</b>
2.1. Removing a 2.5 inch SATA disk .....	2-2
2.2. Installing a 2.5 inch SATA disk .....	2-6
<b>Chapter 3. Servicing a front M.2 NVMe disk</b> .....	<b>3-1</b>
3.1. Removing a front M.2 NVMe disk .....	3-2
3.2. Installing a front M.2 NVMe disk .....	3-9
<b>Chapter 4. Servicing a fan</b> .....	<b>4-1</b>
4.1. Removing a fan .....	4-2
4.2. Installing a fan .....	4-10
<b>Chapter 5. Servicing a bezel filter</b> .....	<b>5-1</b>
5.1. Removing a bezel filter .....	5-2
5.2. Installing a bezel filter .....	5-6



---

## 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.**

**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 PSU

---

**Important** When the BullSequana EXR server is equipped with two PSUs, one can be replaced when the OS is running without causing any interruption in production.

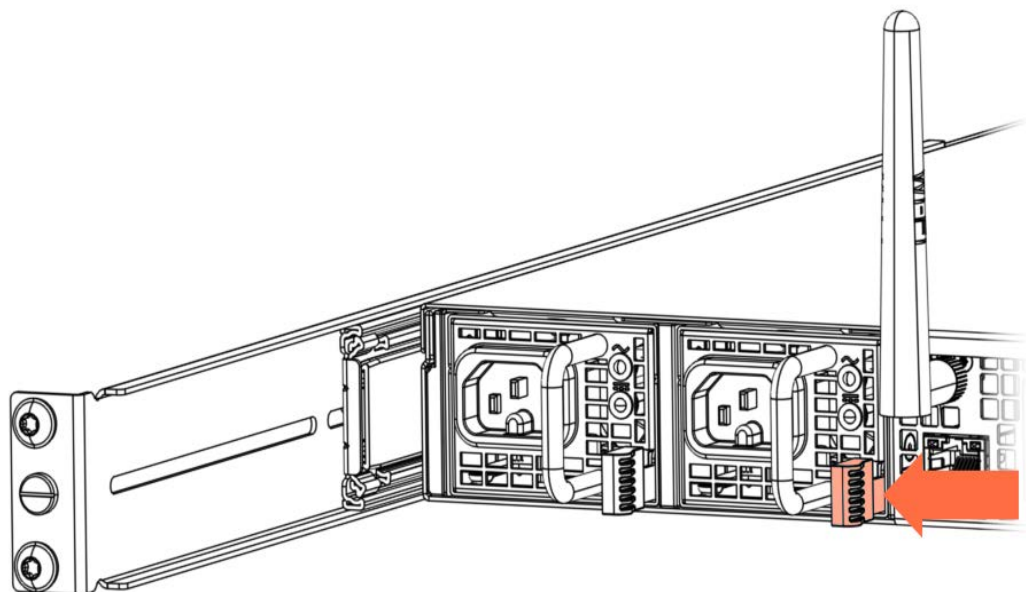
---

### Required tools

None

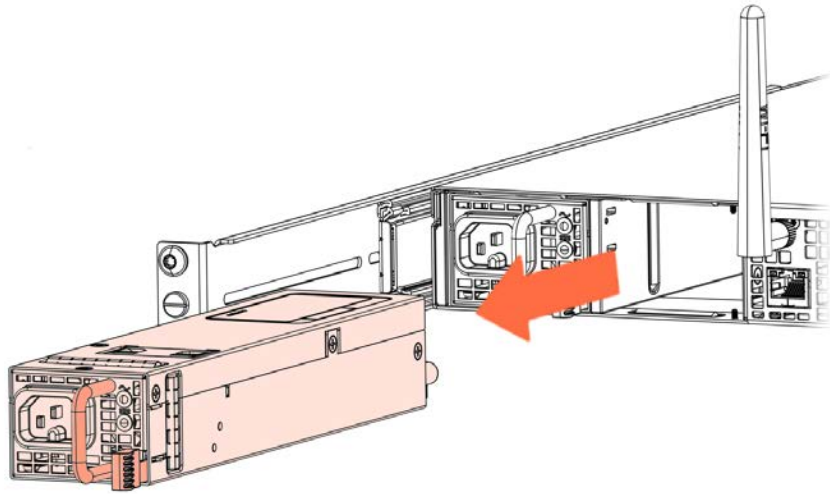
### Procedure

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 right.





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



---

## 1.2. Installing a PSU

---

**Important** When the BullSequana EXR server is equipped with two PSUs, one can be replaced when OS is running without causing any interruption in production.

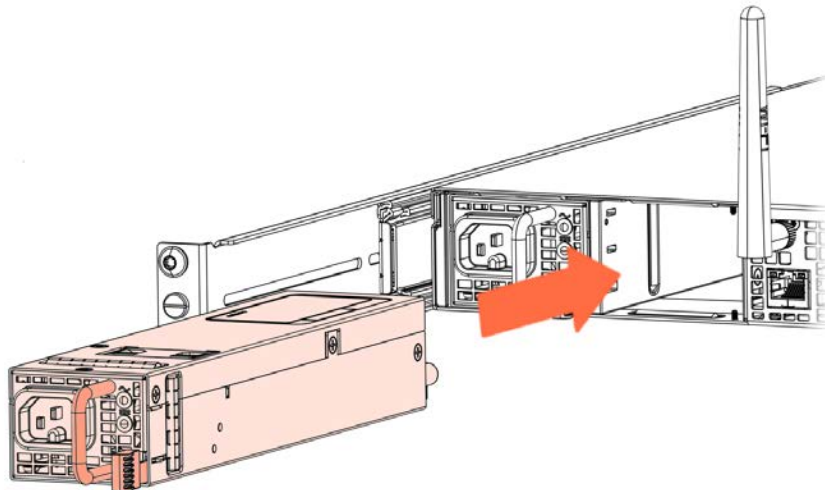
---

### 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

---

**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.**

**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.

---

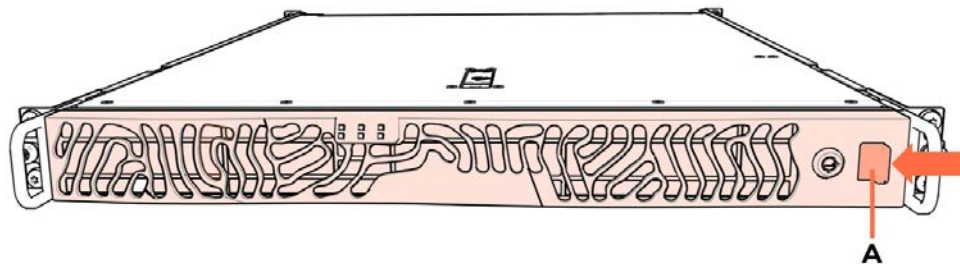
### Required tools

None

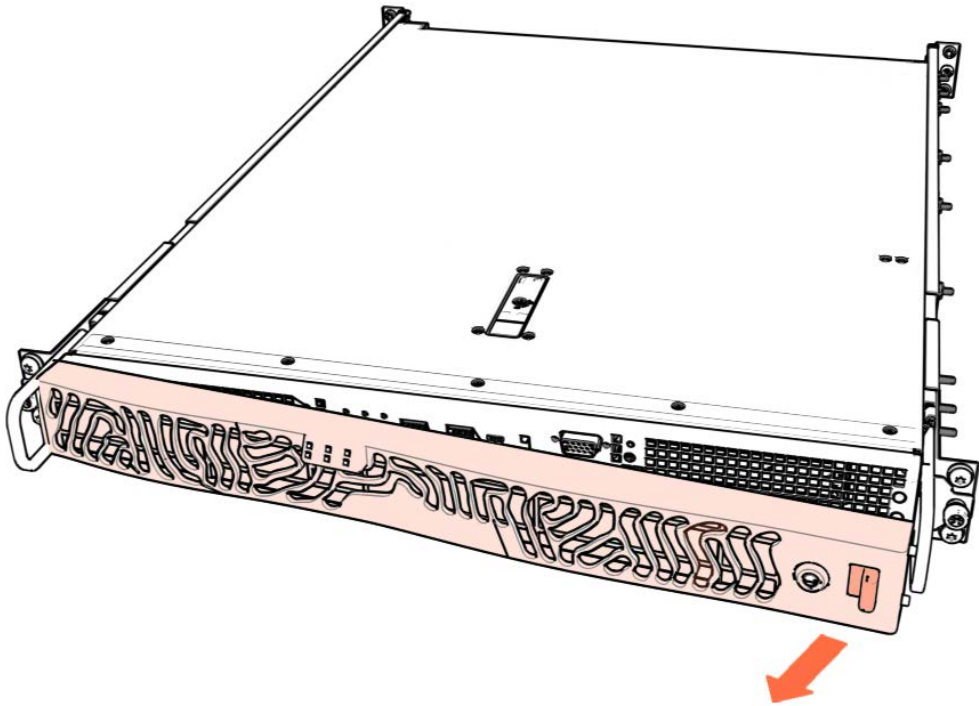
### Procedure

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.

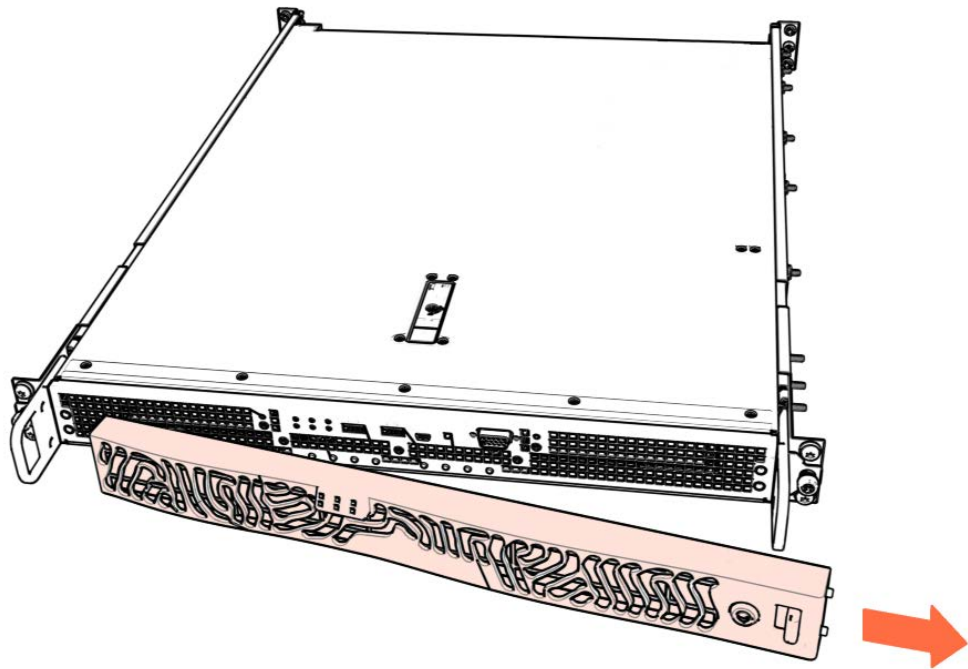
 **Front view**



2. Rotate the bezel slightly.

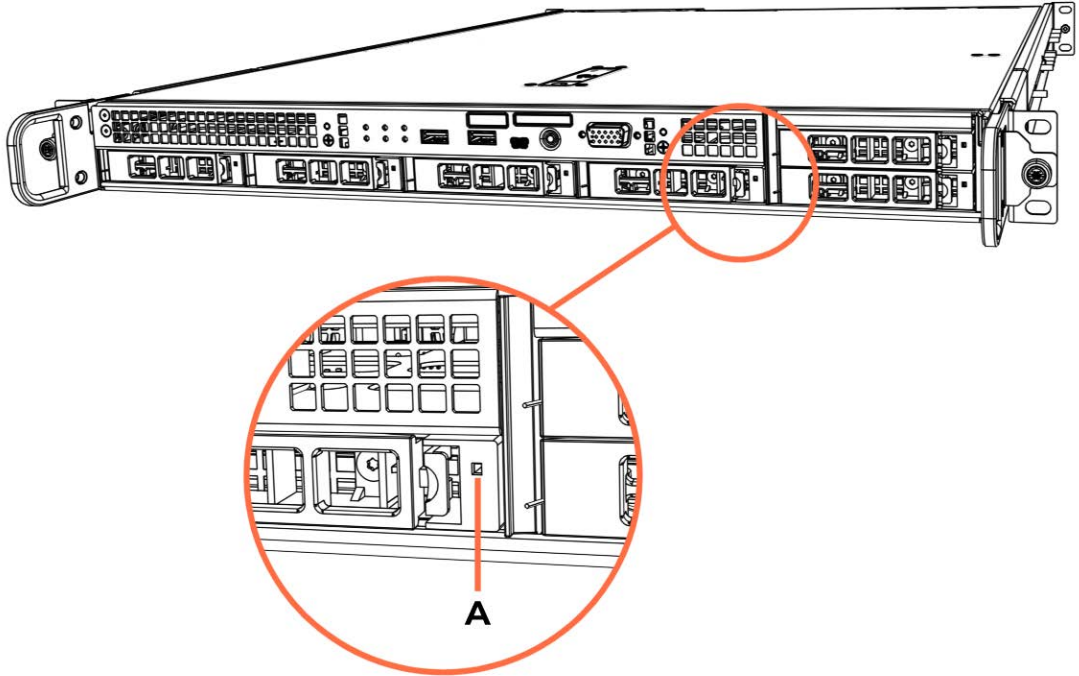


3. Remove the bezel from the left hand side of the server.



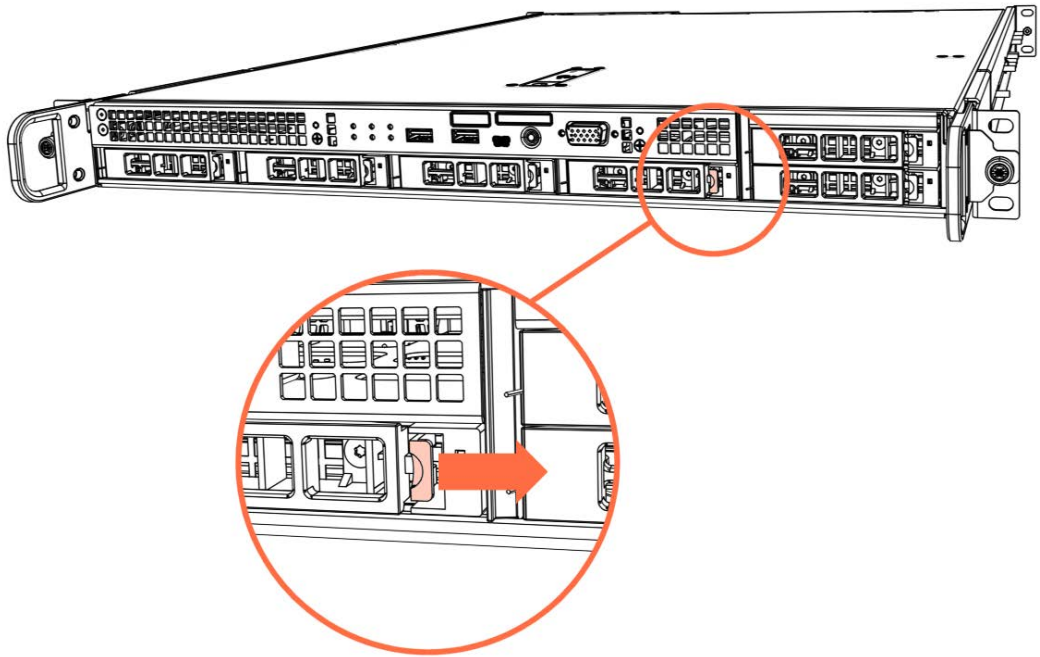
4. Check that the SATA activity LED (A) of the disk is off

 Front view

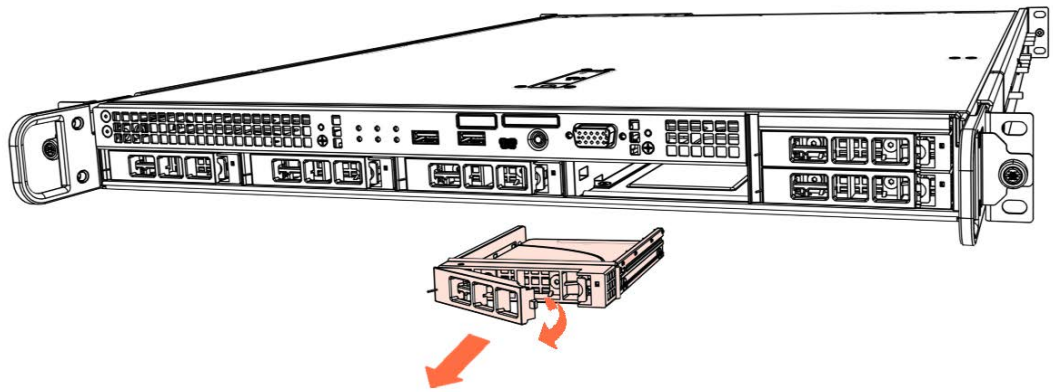


## 5. Remove the 2.5 inch SATA disk

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



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



---

## 2.2. Installing a 2.5 inch SATA disk

---

**Important** The 2.5 inch SATA disks are hot-pluggable.

---

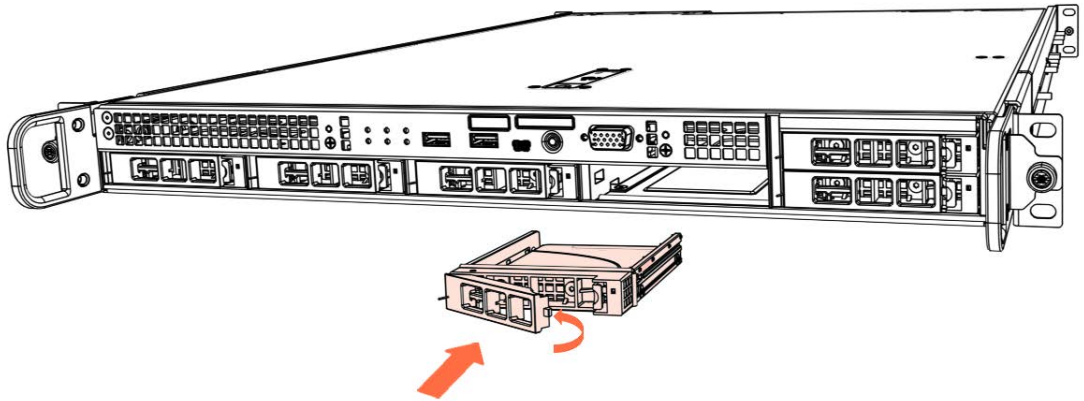
### Required tools

None

### Procedure

1. Take hold of the new component
2. Install the 2.5 inch SATA disk
  1. Carefully push the disk in until it stops.
  2. Rotate its handle to lock the latch.

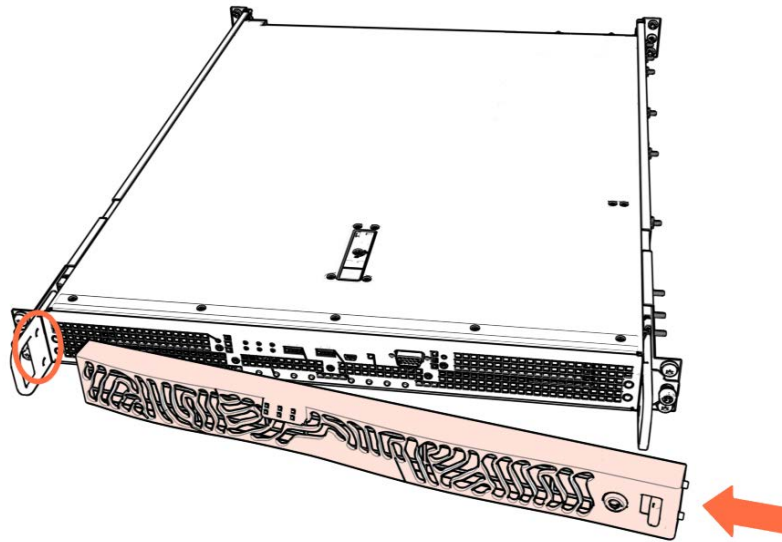
### Front view



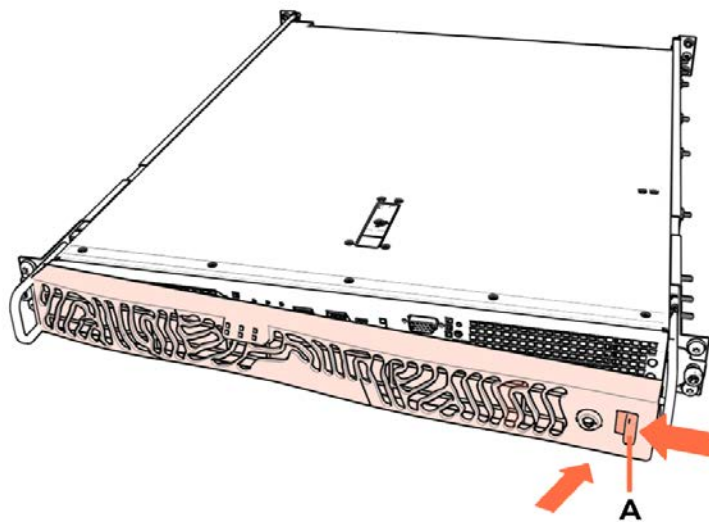


### 3. Install the bezel

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.

### 4. Close the cabinet front door



---

## Chapter 3. Servicing a 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.**

**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

### Required tools

Cross-headed screwdriver

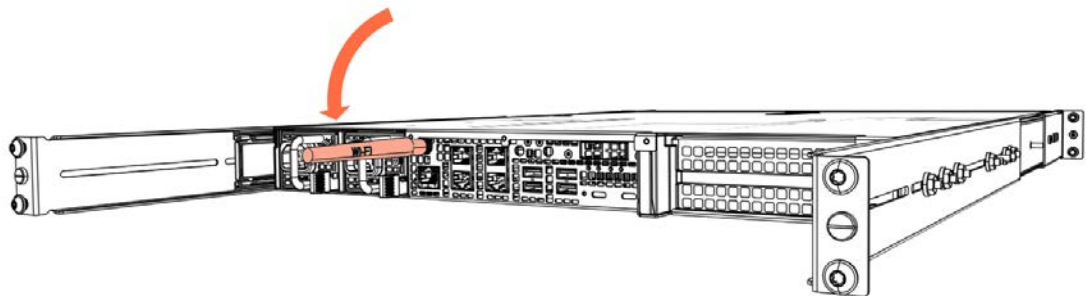
PH0 cross-headed screwdriver

### 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**

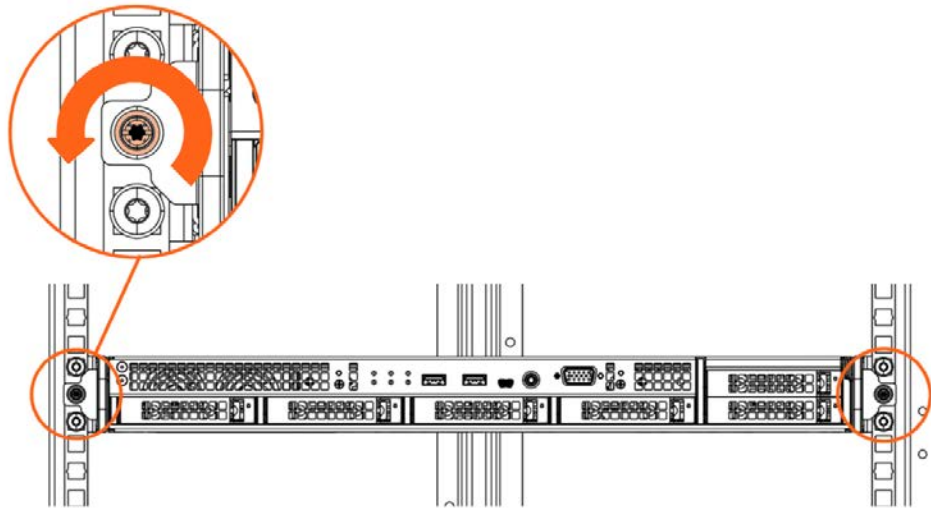


**CAUTION C045**

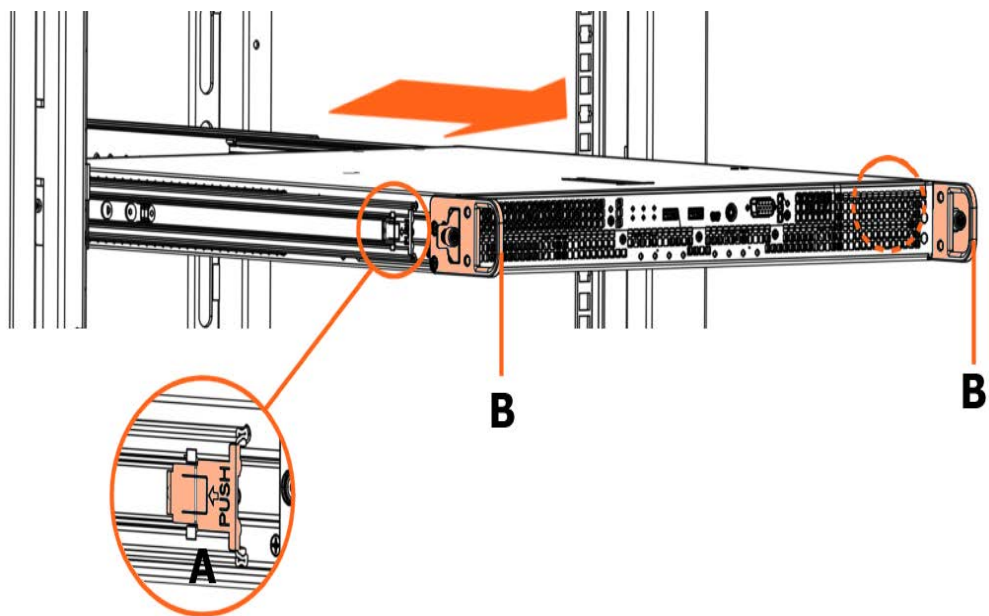
**Two people are required to perform this operation.**

1. Loosen the captive screws to release the server.

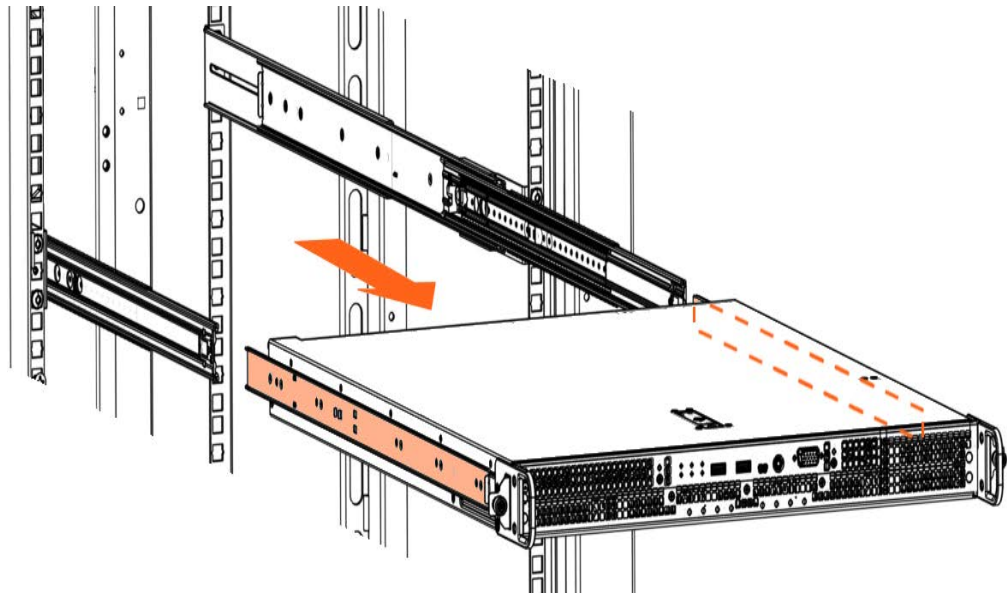
 **Front view**



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.

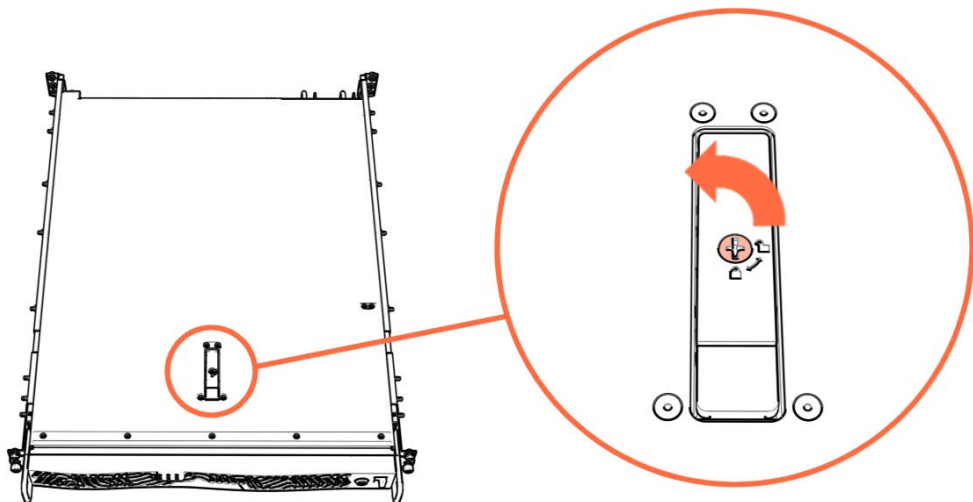


3. Pull the server completely out of the cabinet.



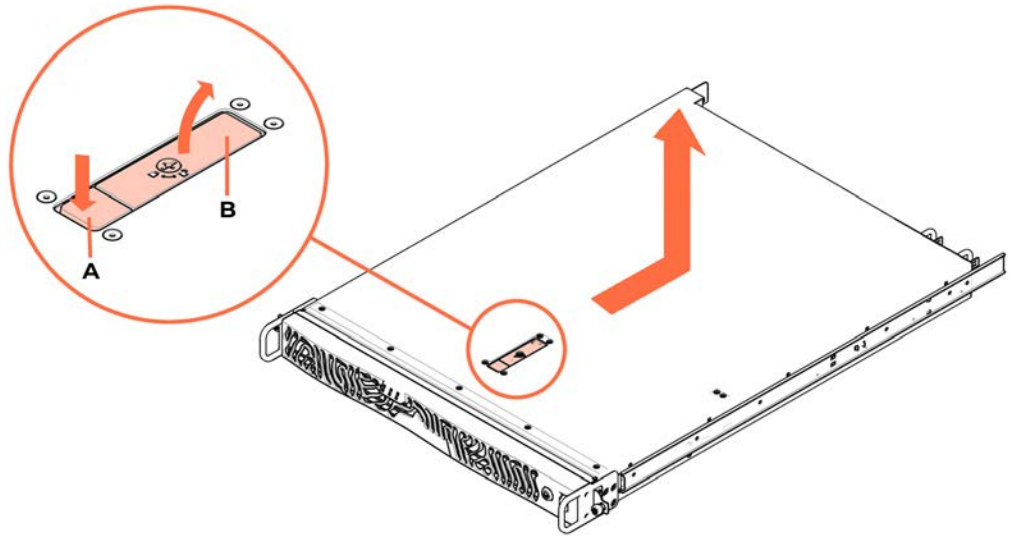
## 8. Remove the top cover

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



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.

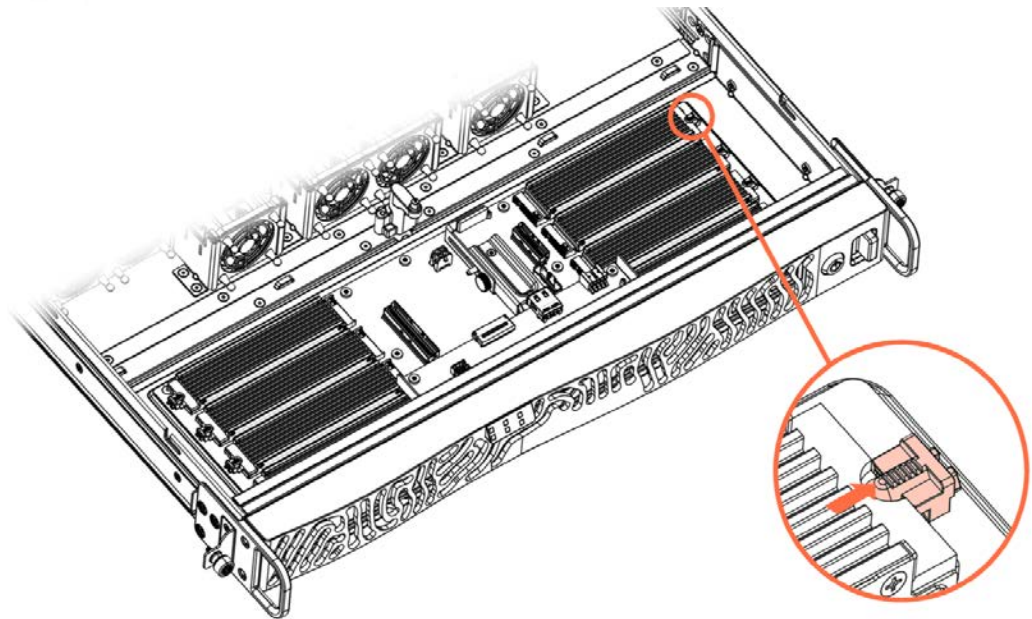


## 9. Remove the disk assembly

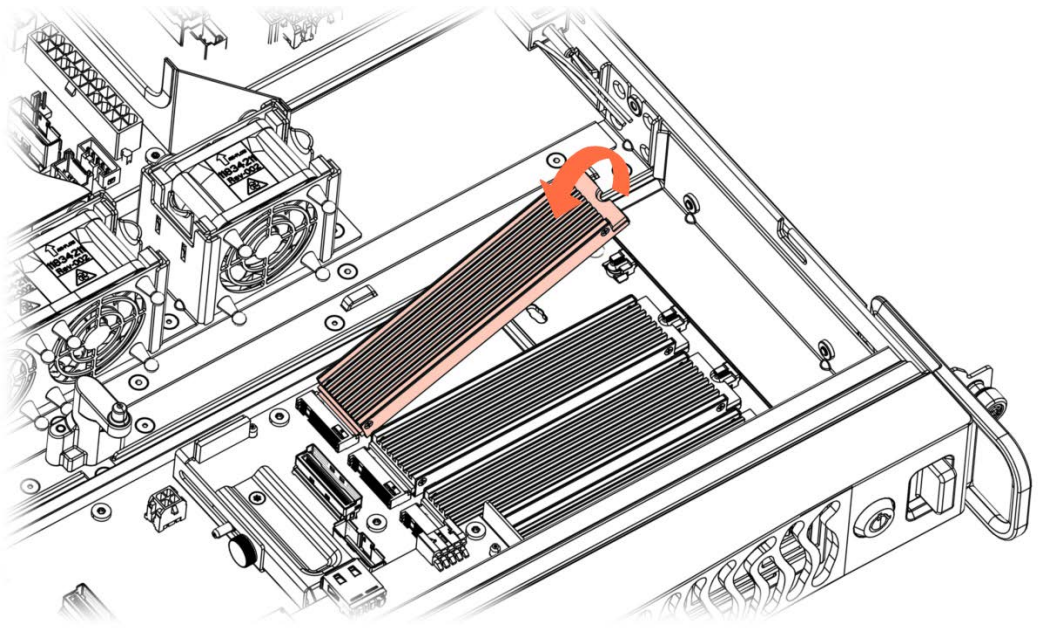
1. Push the latch to unlock the disk assembly.



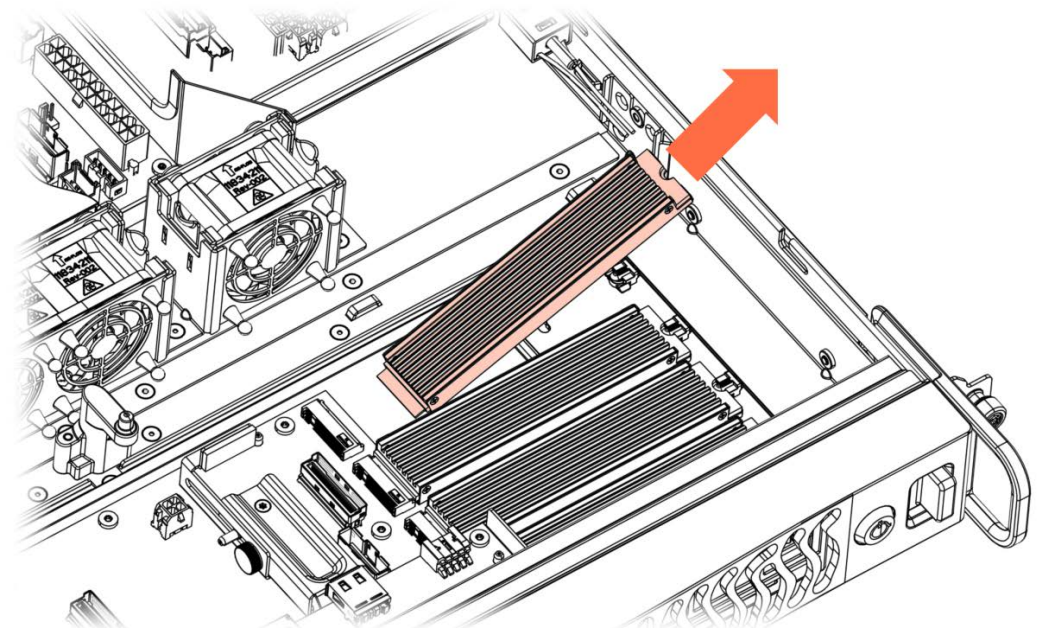
Front view



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



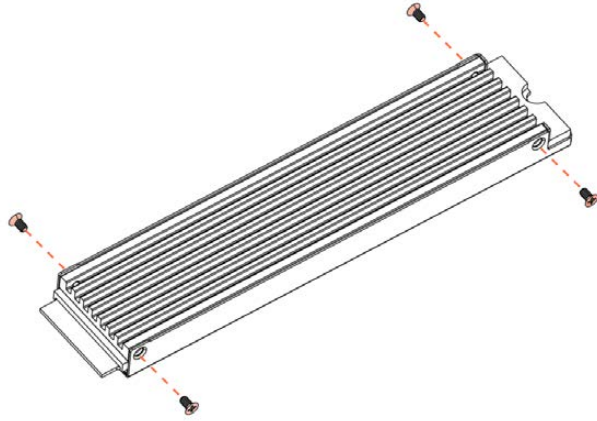
3. Remove the disk assembly.



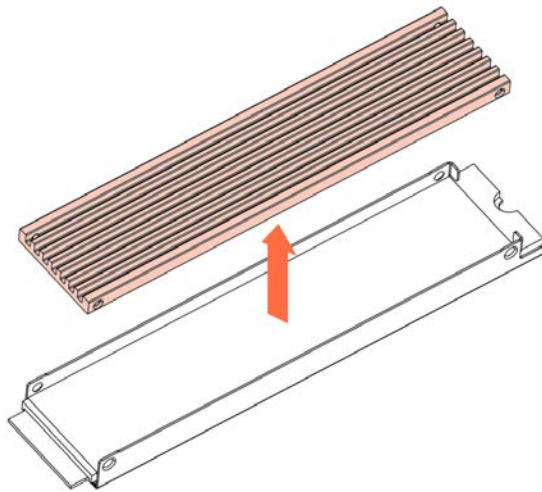


## 10. Remove the M.2 NVMe disk

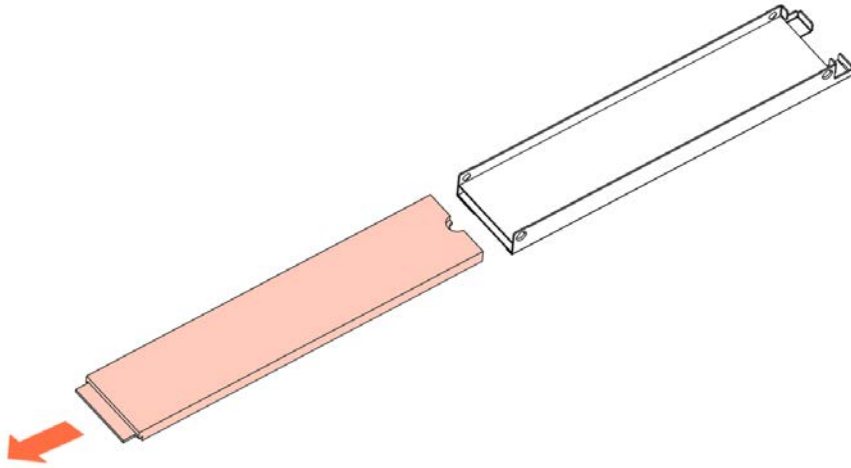
1. Remove the heatsink.
  - a. Remove the screws.



- b. Lift the heatsink cover up.



2. Remove the M.2 NVMe disk from the heat sink base.



---

## 3.2. Installing a front M.2 NVMe disk

### Required tools

Cross-headed screwdriver

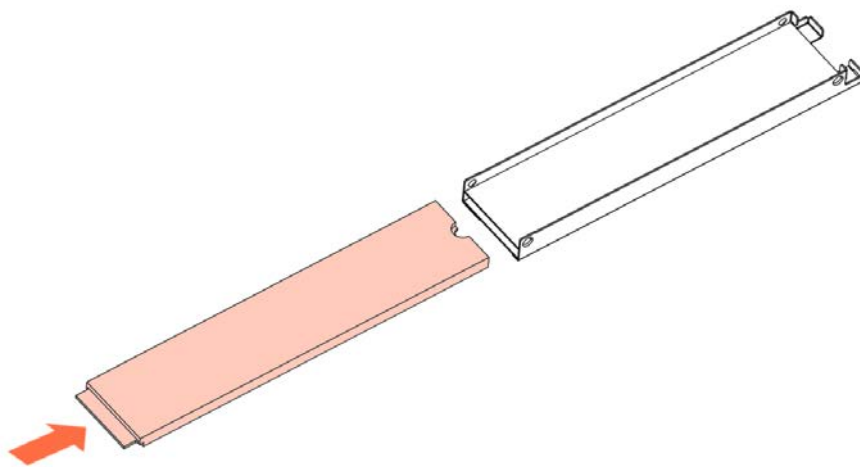
PH0 cross-headed screwdriver

### Procedure

#### 1. Take hold of the new component

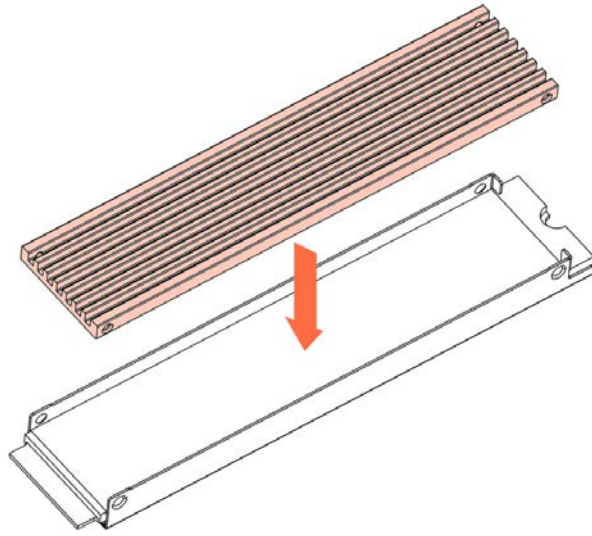
#### 2. Install the M.2 NVMe disk

1. Insert the M.2 NVMe disk into the heat sink base.

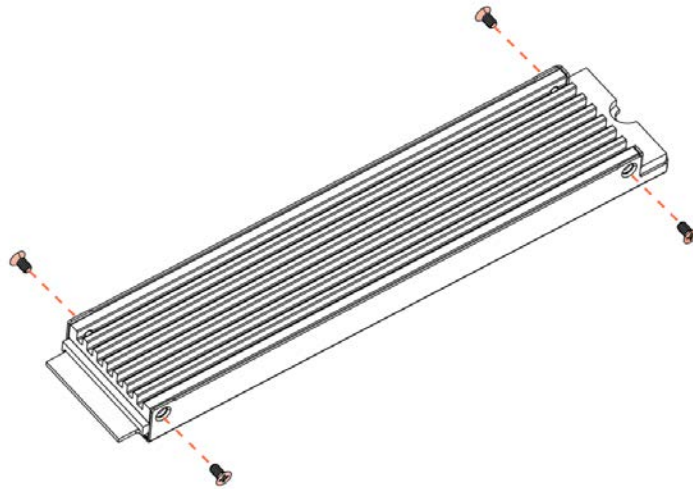


2. Install the heatsink.

a. Put the heatsink cover back.

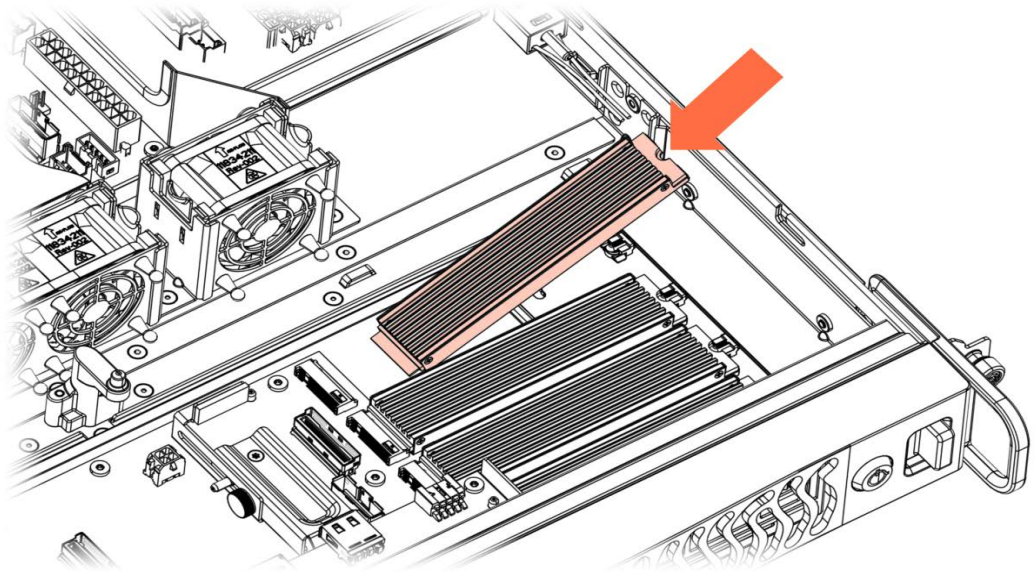


b. Tighten the screws.

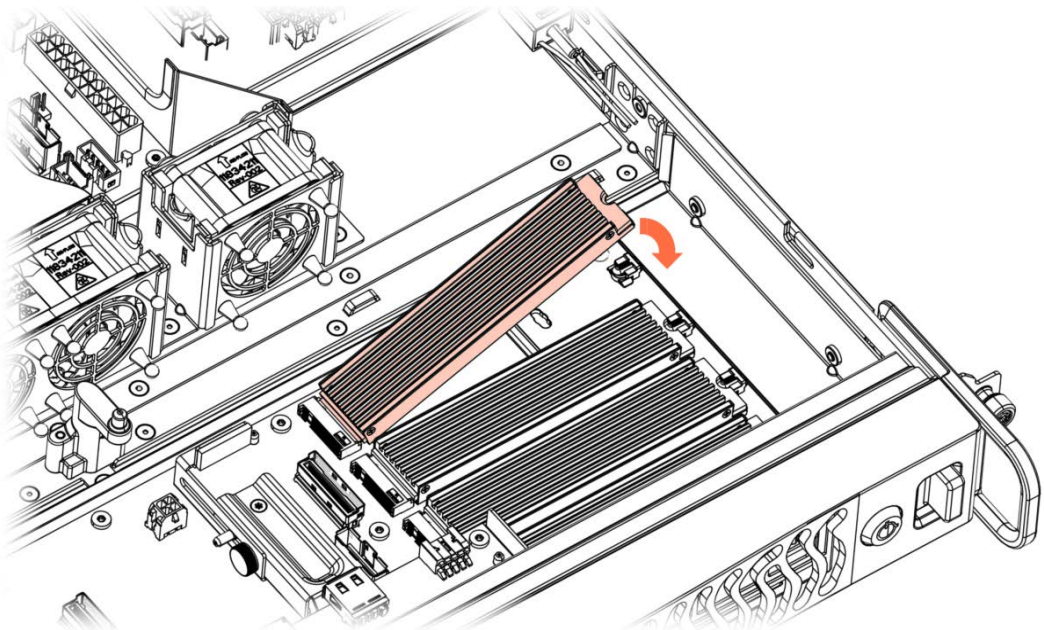


### 3. Install the disk assembly

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



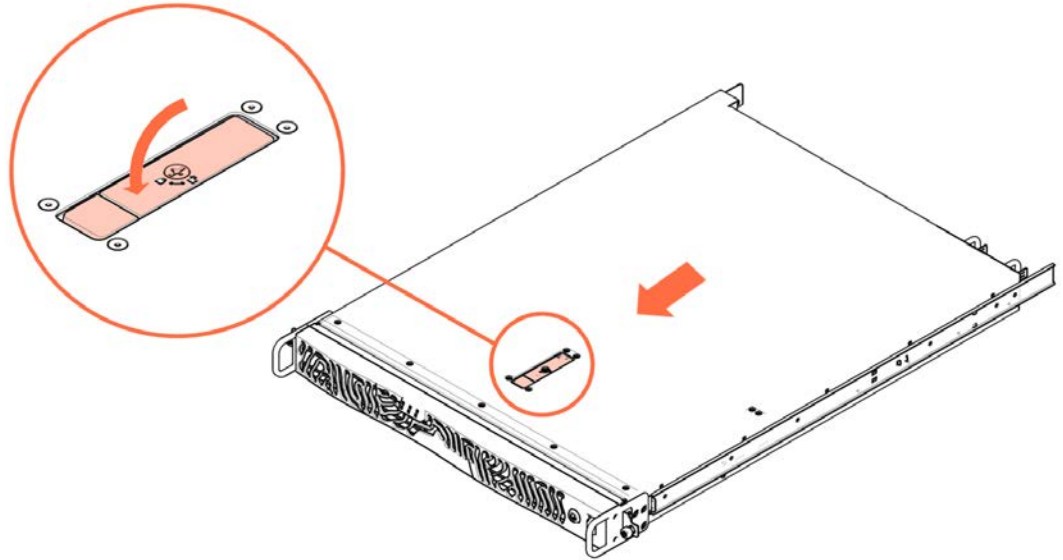
2. Lower the disk down.



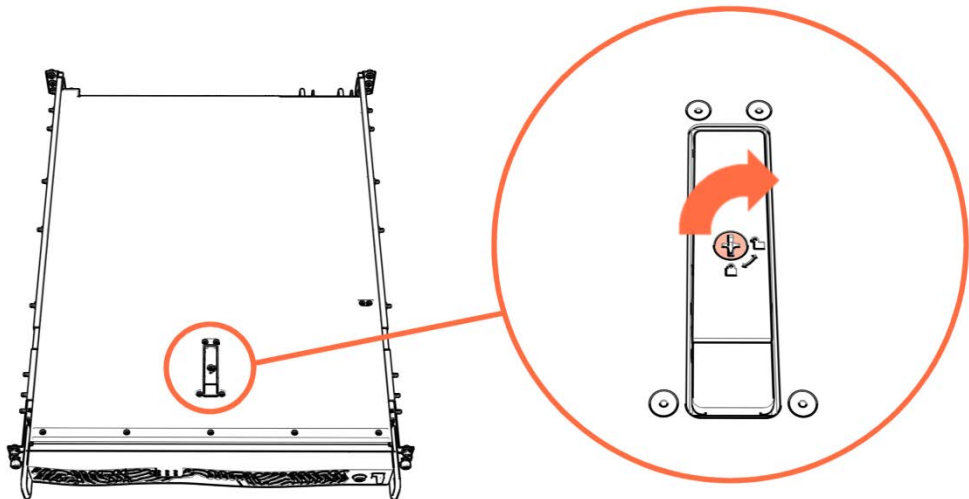
#### 4. Install the top cover

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

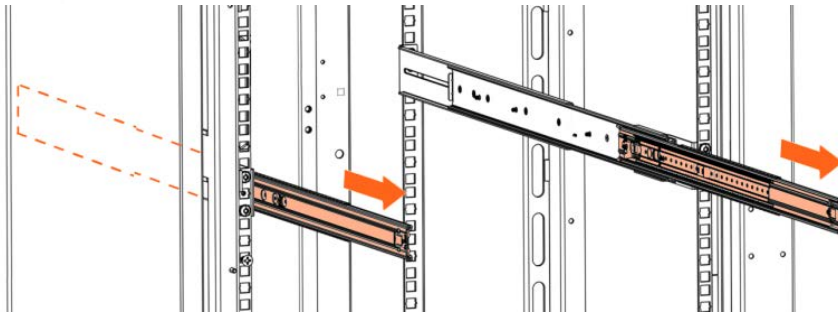


**CAUTION C045**

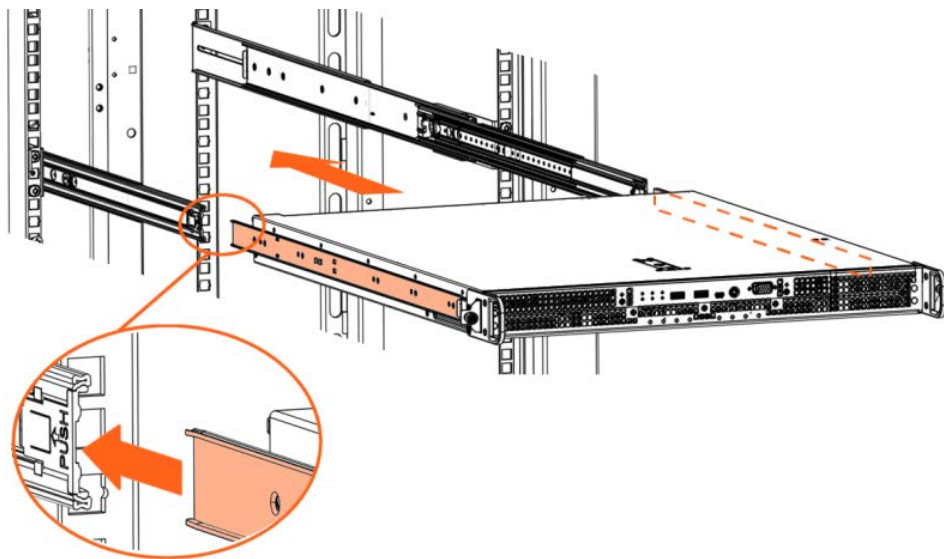
**Two people are required to perform this operation.**

1. Pull the middle rails out.

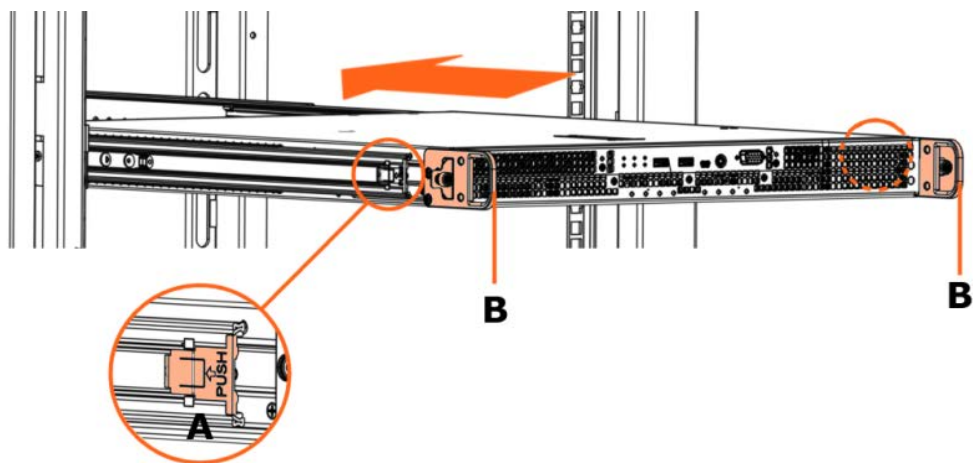
 **Front view**



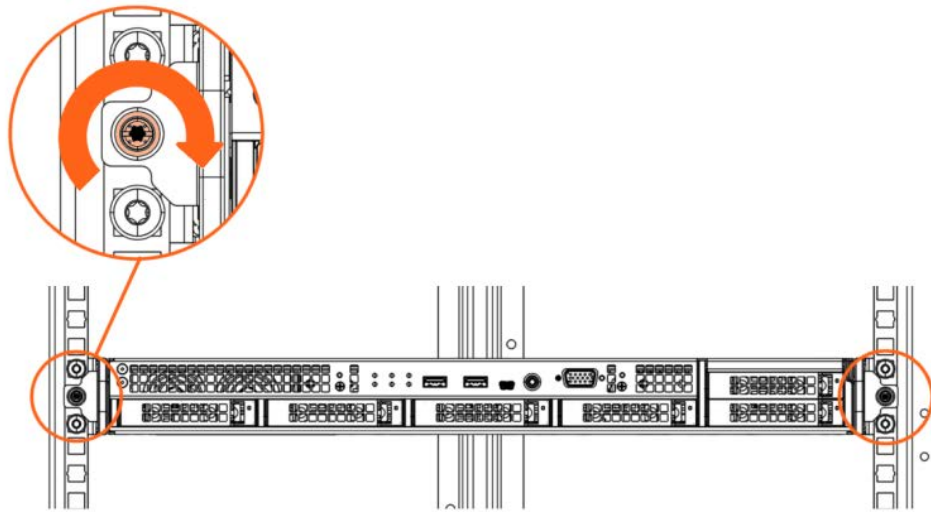
2. Slide the server into the middle rails using the inner rails attached to the server.



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).

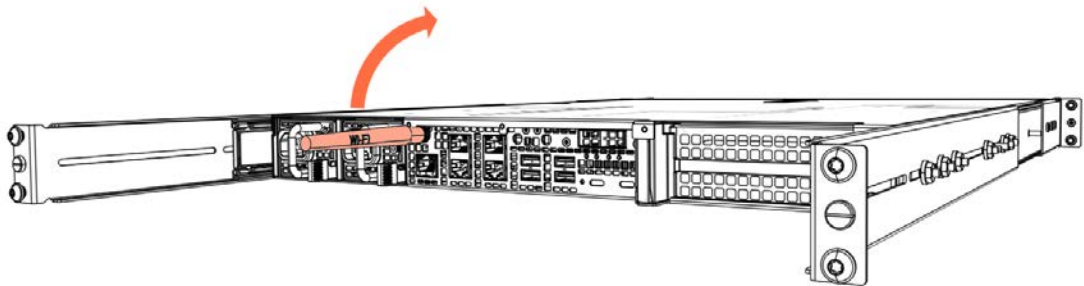


4. Tighten the captive screws to secure the server into place.



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

---

**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.**

**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

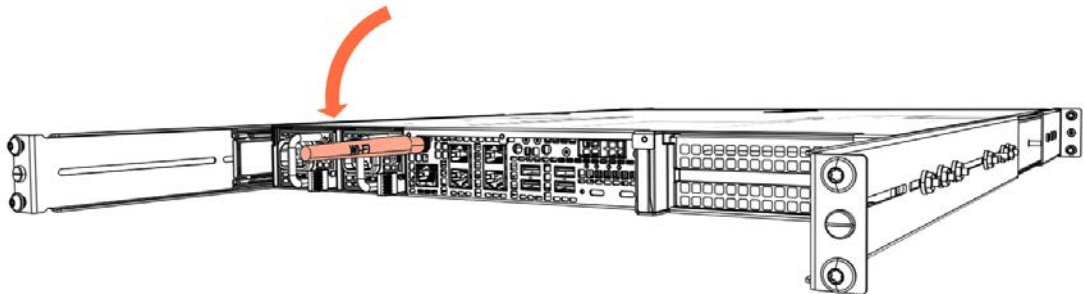
### Required tools

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**

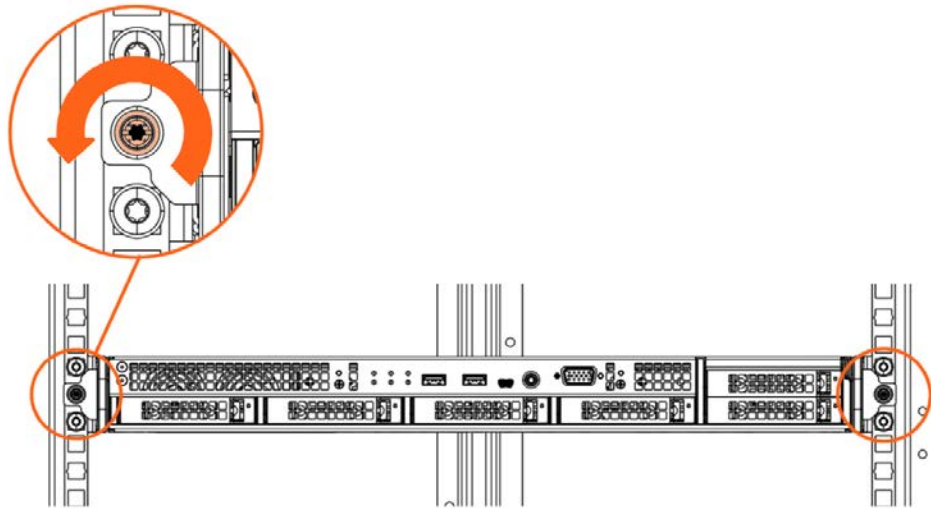


### **CAUTION C045**

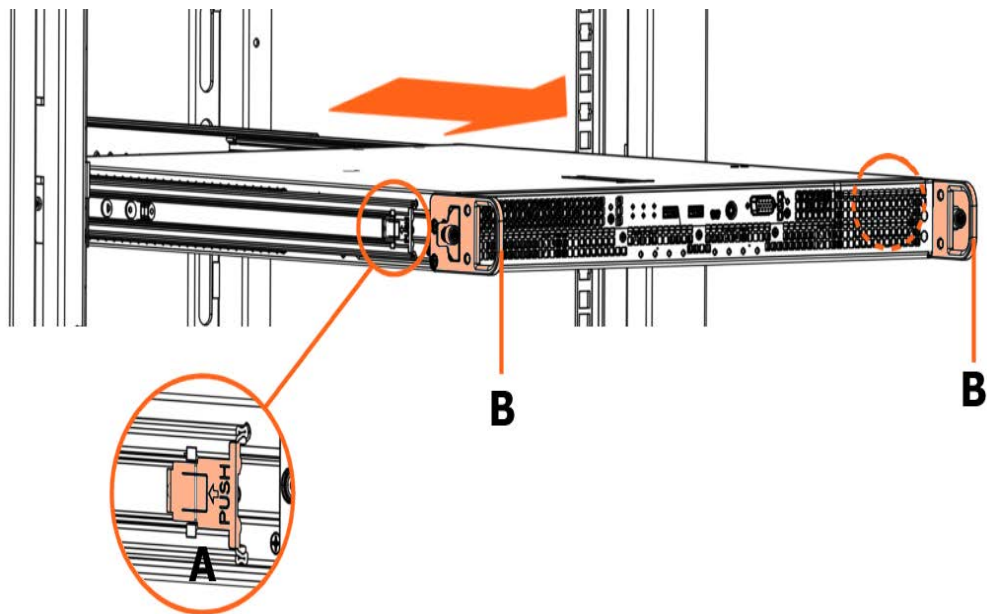
**Two people are required to perform this operation.**

1. Loosen the captive screws to release the server.

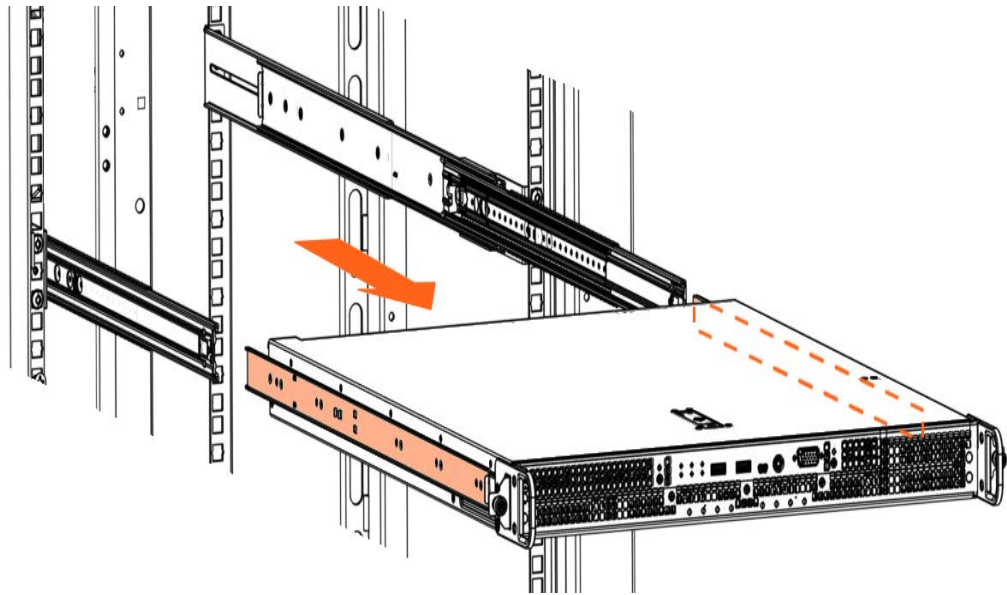
 **Front view**



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.

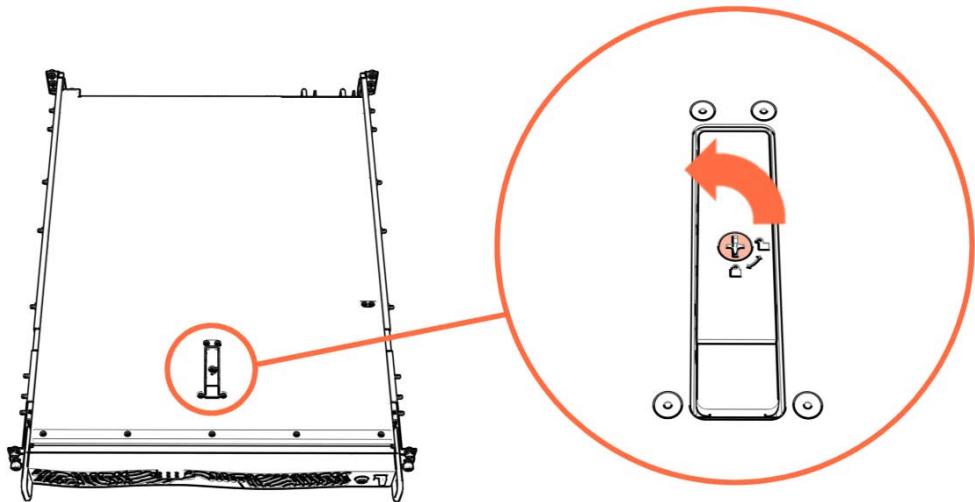


## 8. Remove the top cover

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

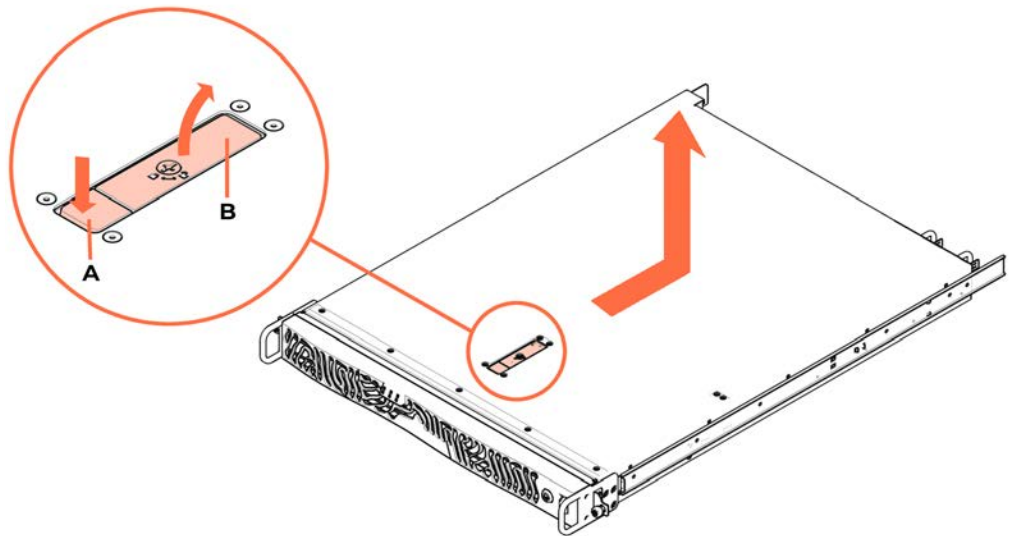


Top view



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

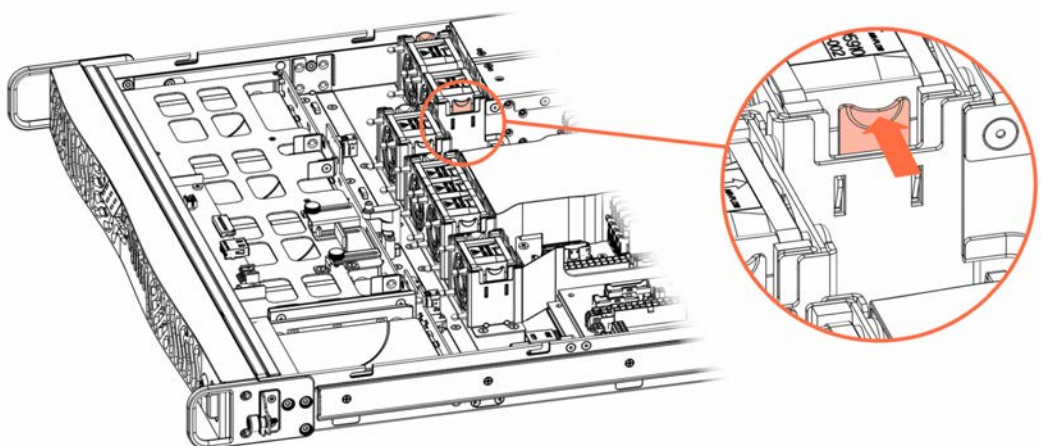
---

**Note** Both PCIe fans are removed at the same time.

---

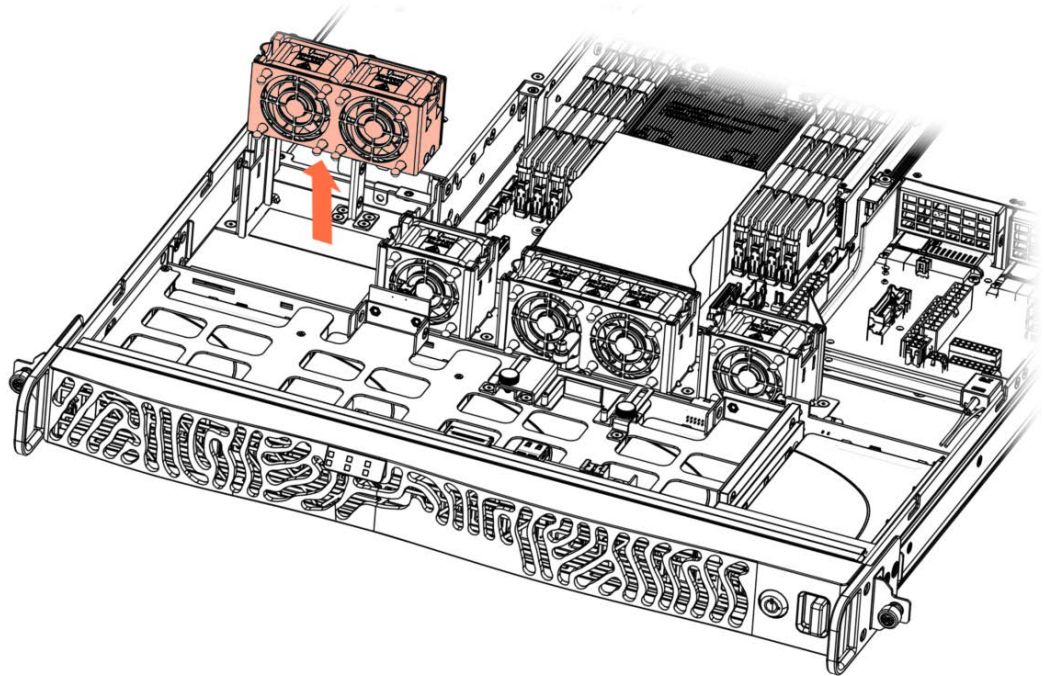
1. Disconnect the cables of both fans.
2. Press the fan latches in.

### Top view



3. Pull the fans up.

 **Top view**



### Processor fan

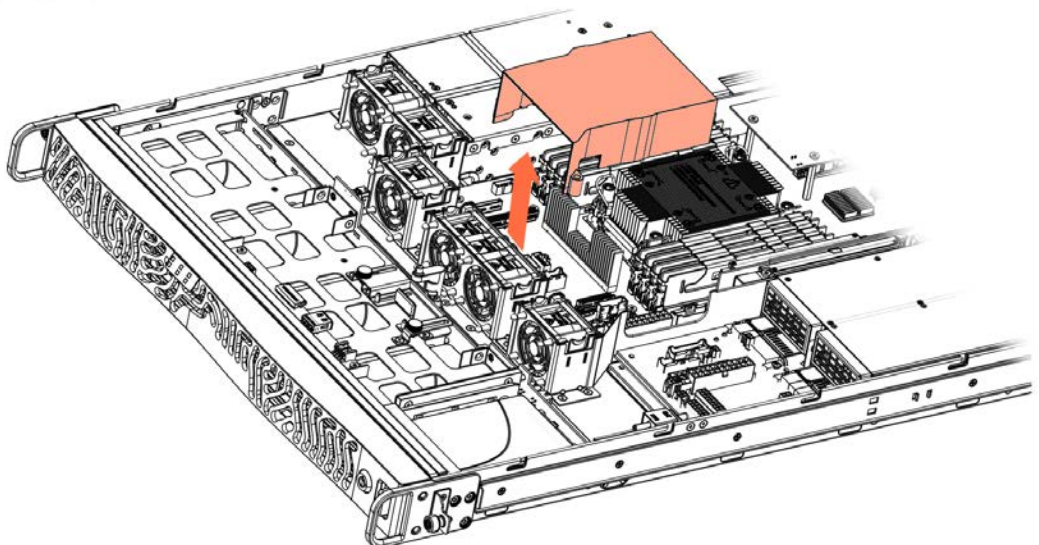
---

**Note** Both processor fans are removed at the same time.

---

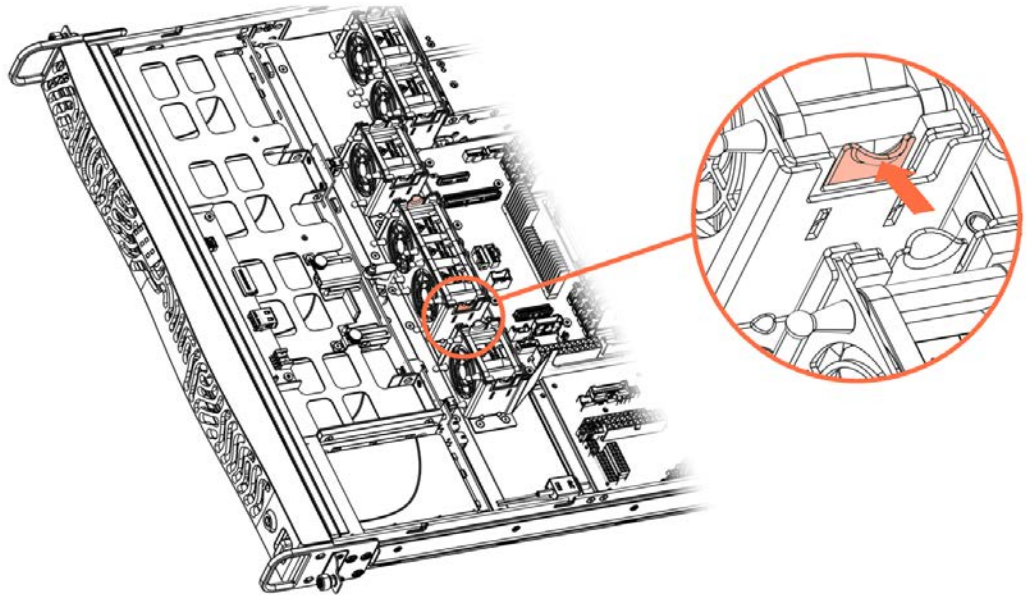
1. Remove the processor air duct.

 **Top view**



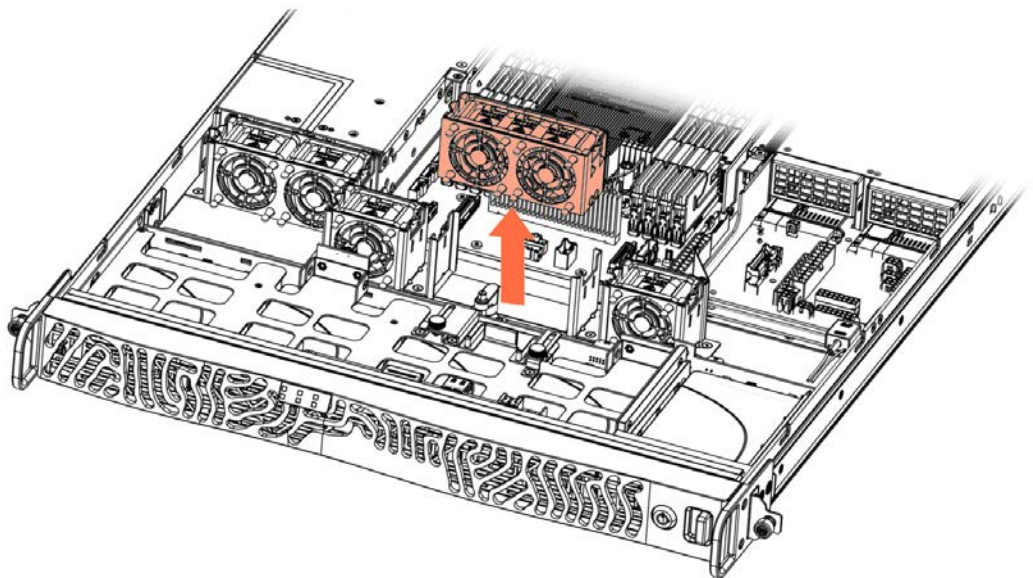
2. Disconnect the cables of both fans.
3. Press the fan assembly latches in.

 **Top view**



4. Pull the the fan up.

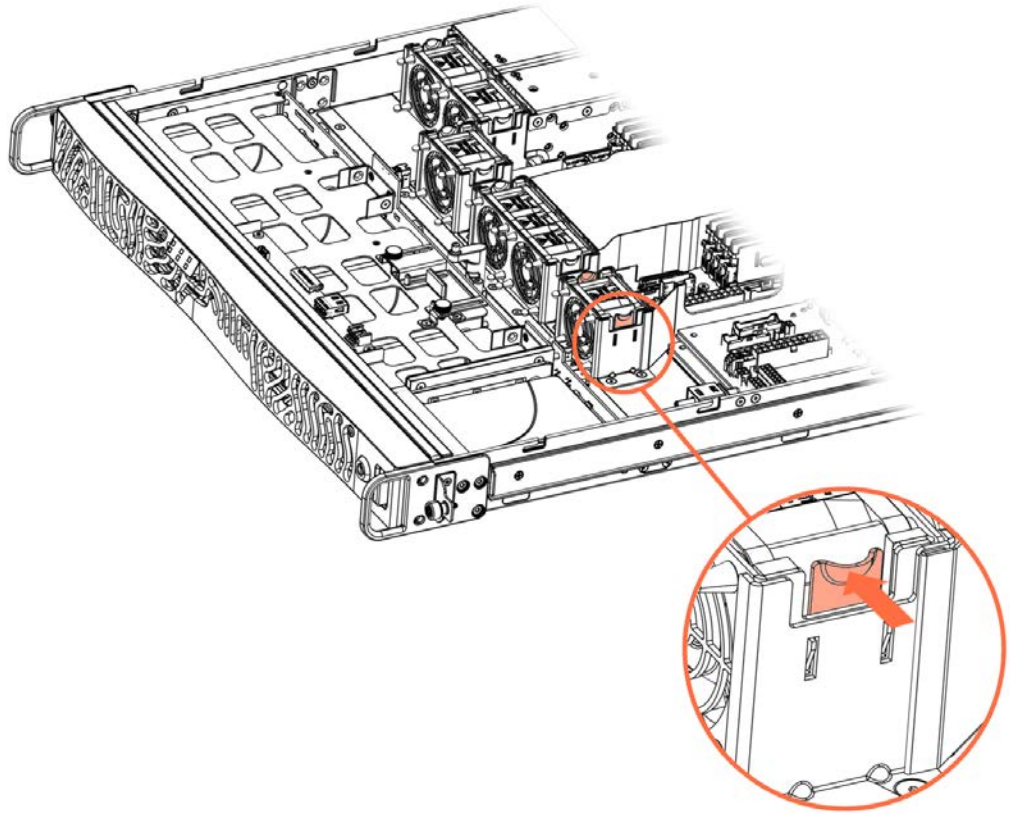
 **Top view**



## Single fan

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

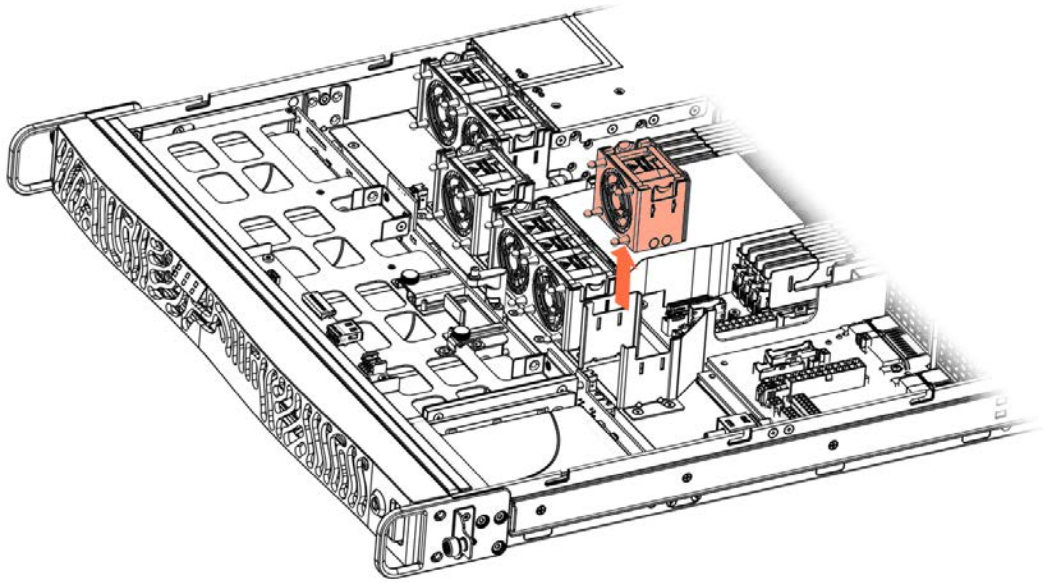
 **Top view**





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

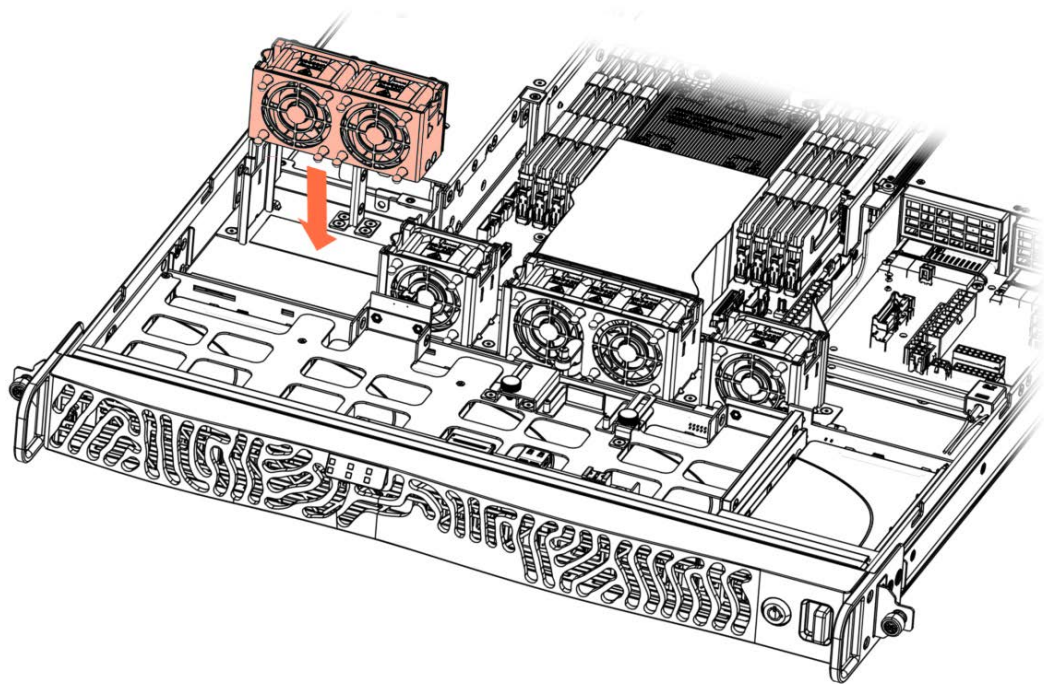
#### PCIe fan

---

**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

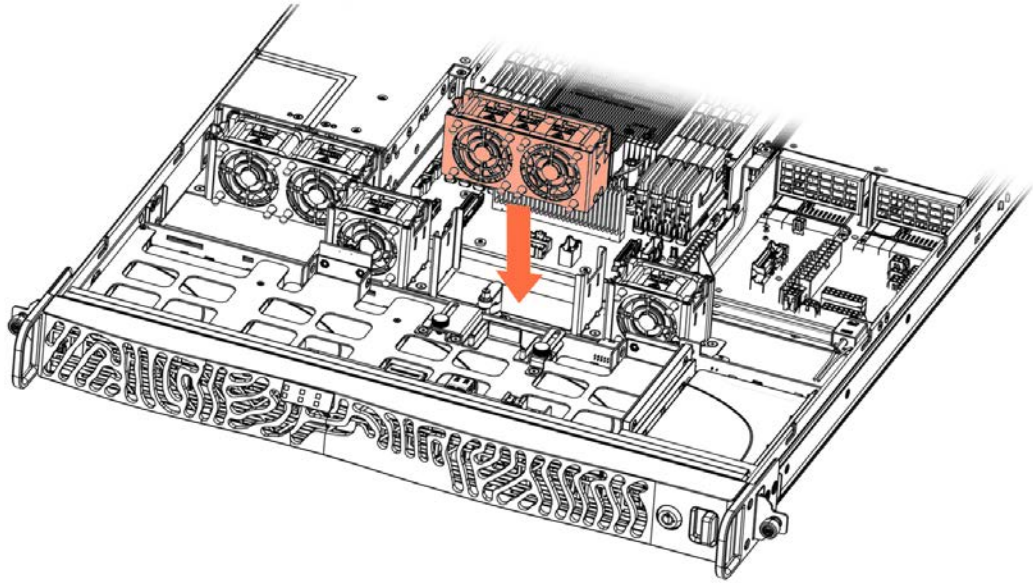
---

**Note** Both processor fans are installed at the same time.

---

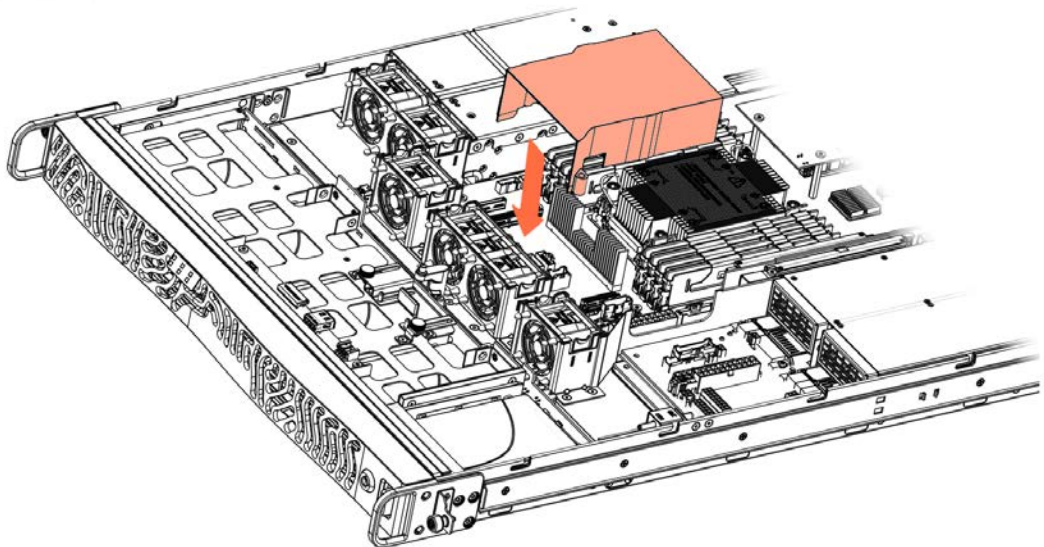
1. Lower the fan locking the latches in the cutouts.

 **Top view**



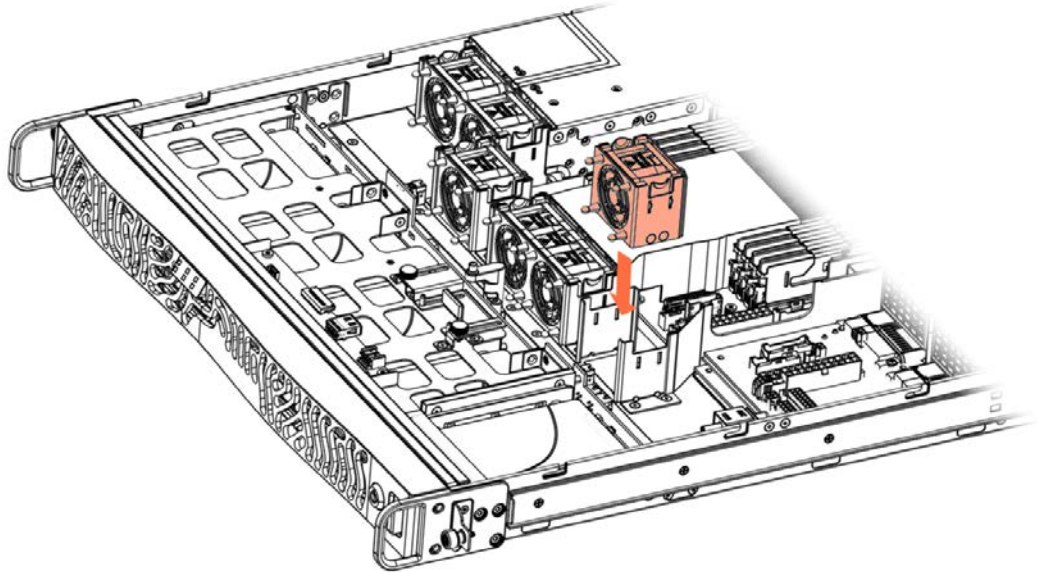
2. Connect the cables of both fans.
3. Lower the processor air duct into position.

 **Top view**



## Single fan

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

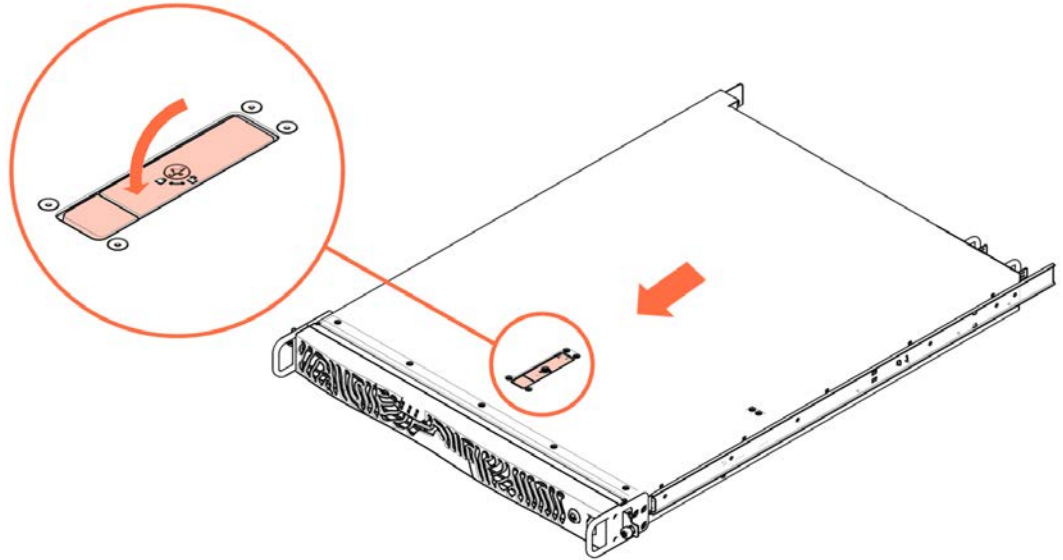


2. Connect the cable of the fan.

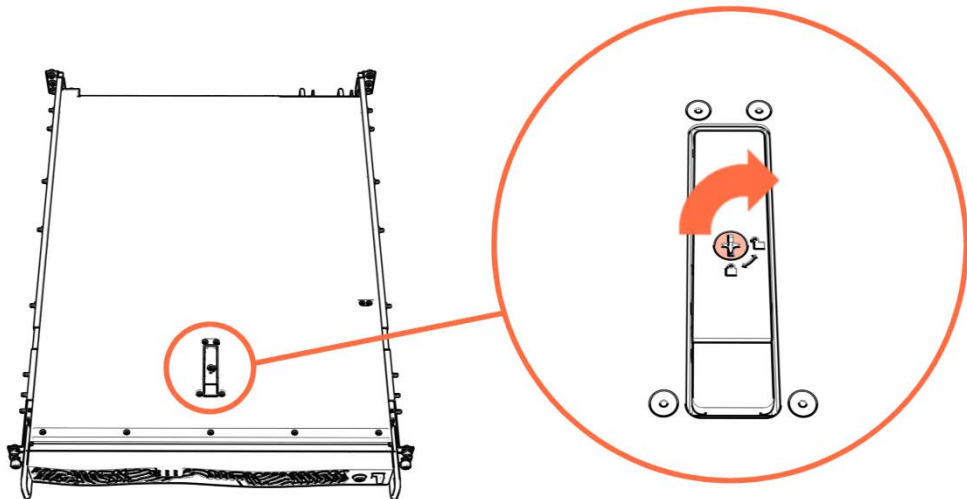
### 3. Install the top cover

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

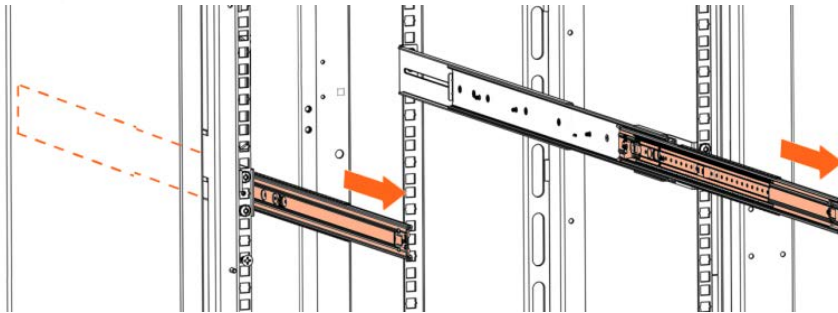


**CAUTION C045**

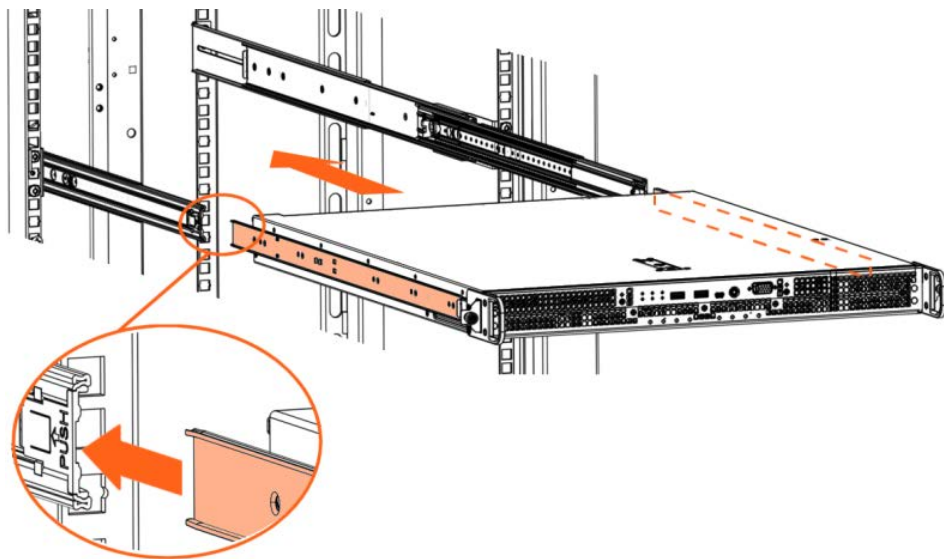
**Two people are required to perform this operation.**

1. Pull the middle rails out.

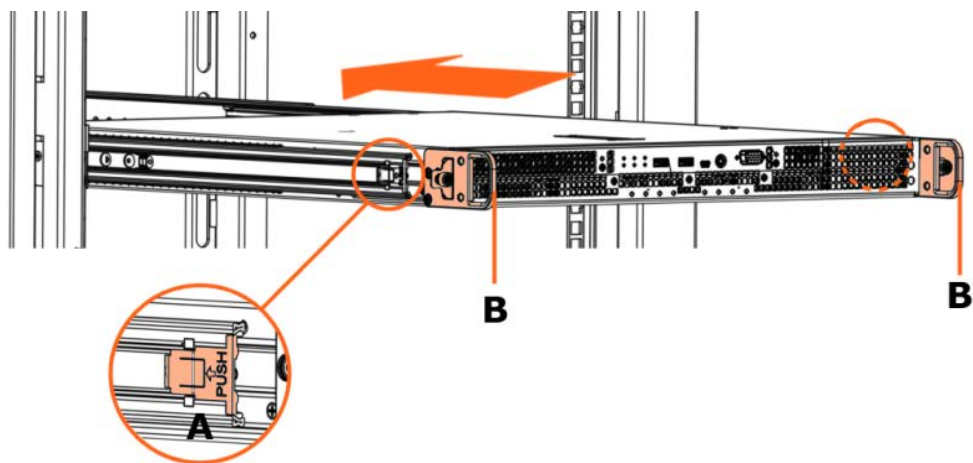
 **Front view**



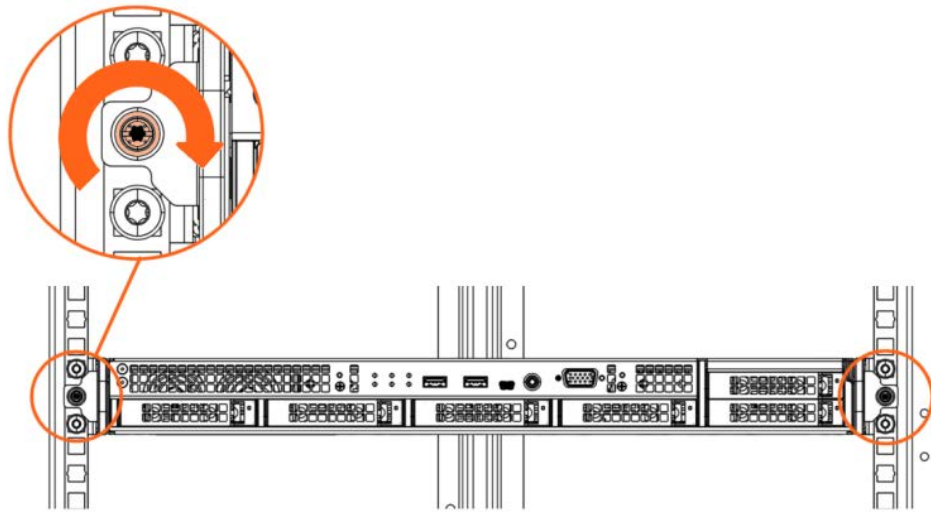
2. Slide the server into the middle rails using the inner rails attached to the server.



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).

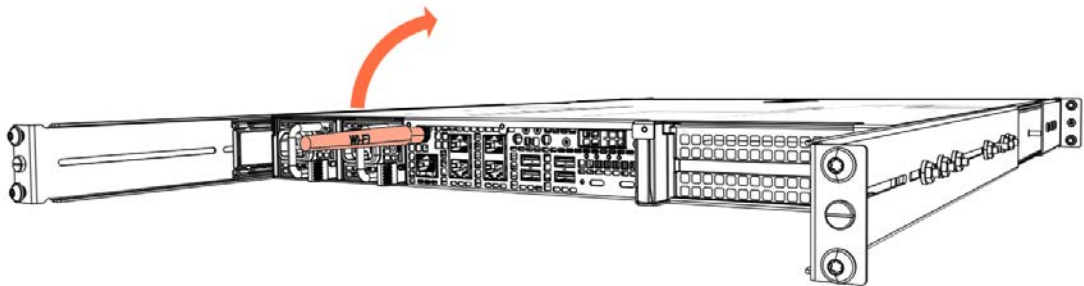


4. Tighten the captive screws to secure the server into place.



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 5. Servicing a 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.**

**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.**

---

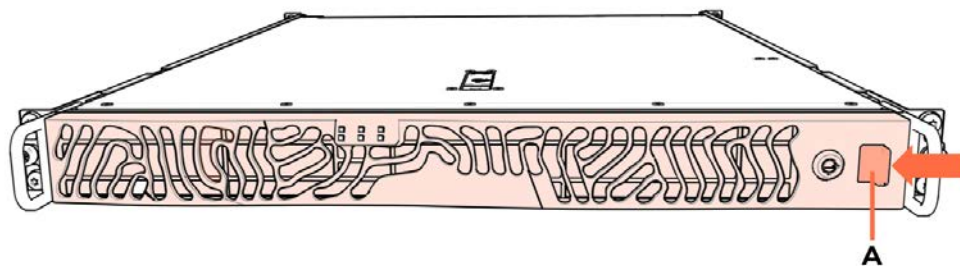
## 5.1. Removing a bezel filter

### Required tools

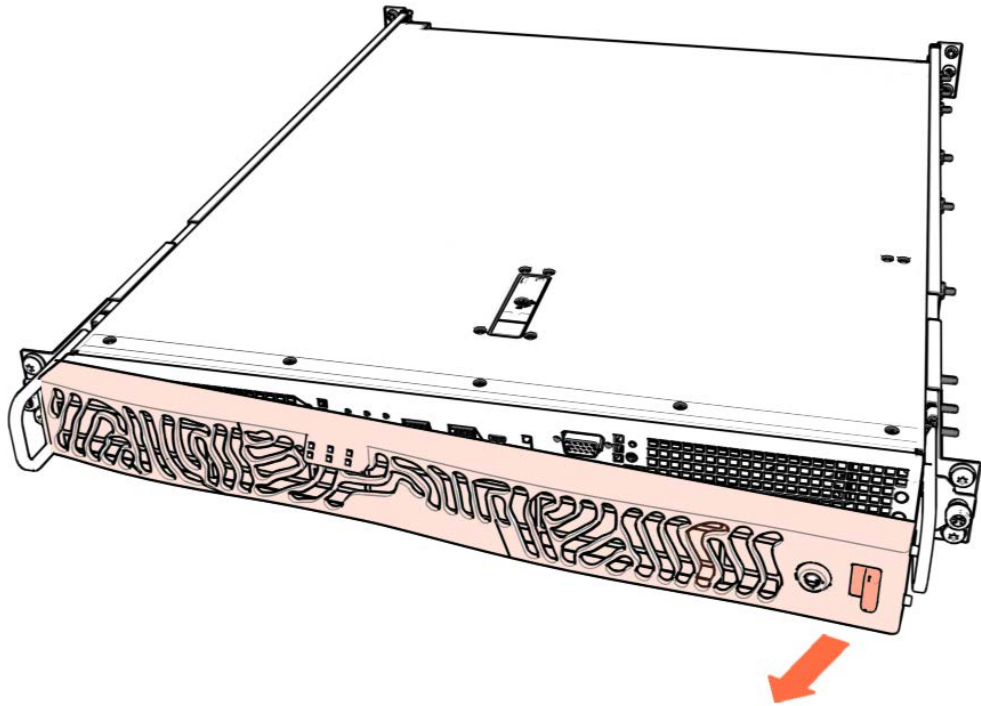
T10 Torx screwdriver

### Procedure

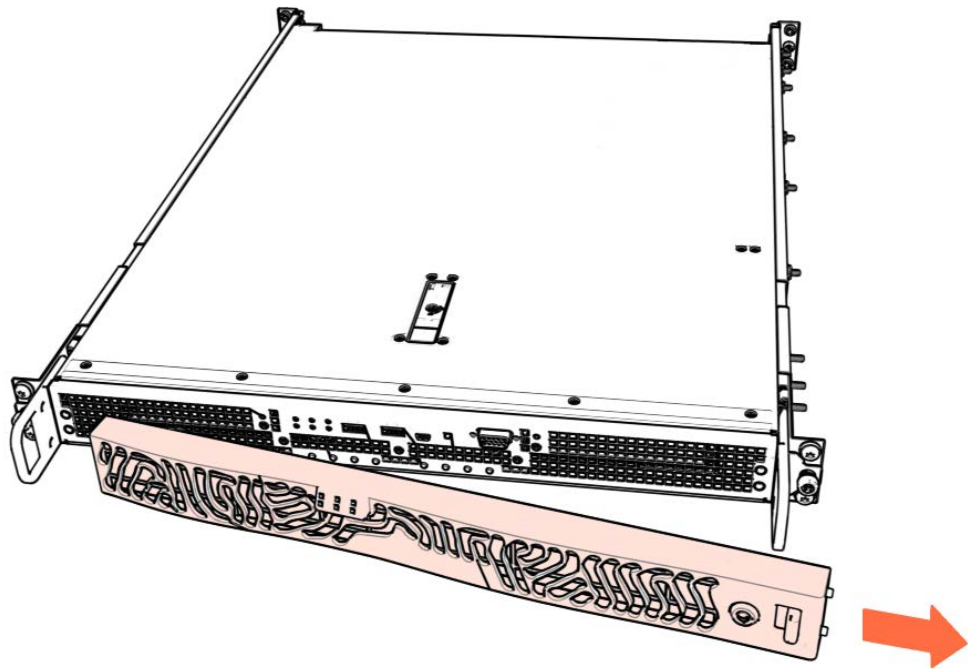
1. **Unpack the new component on a clean ESD-protected work surface**
2. **Open the cabinet front door**
3. **Locate the server to be serviced in the cabinet**
4. **Remove the bezel**
  1. Press the latch (A) to the left to unlock the bezel.



2. Rotate the bezel slightly.

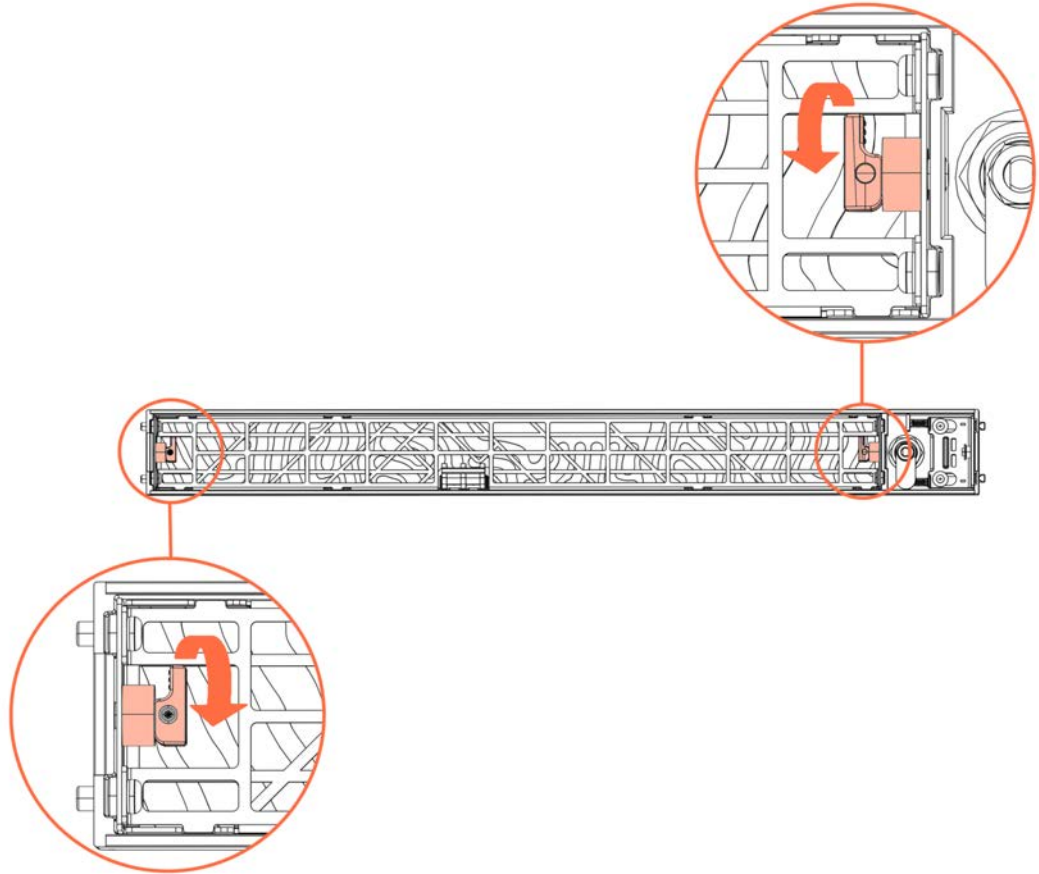


3. Remove the bezel from the left hand side of the server.

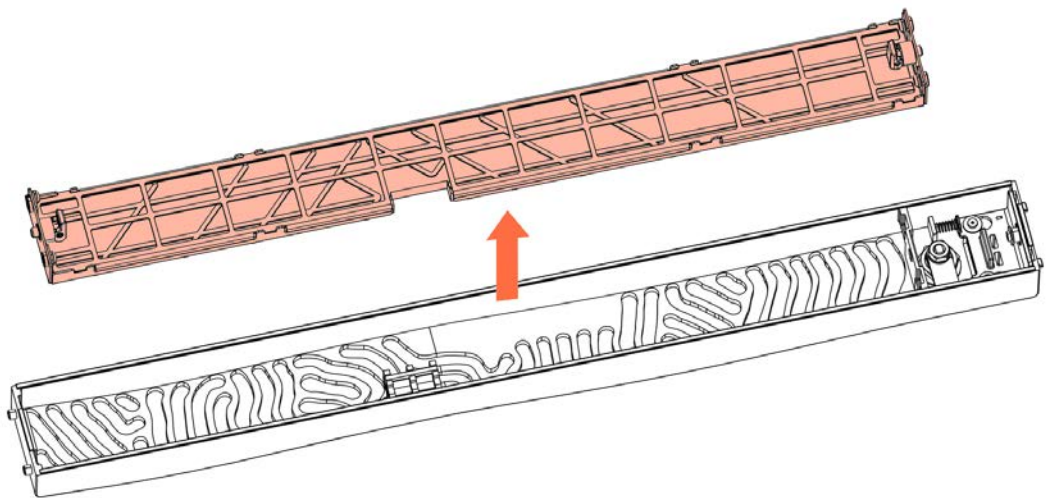


## 5. Remove the filter

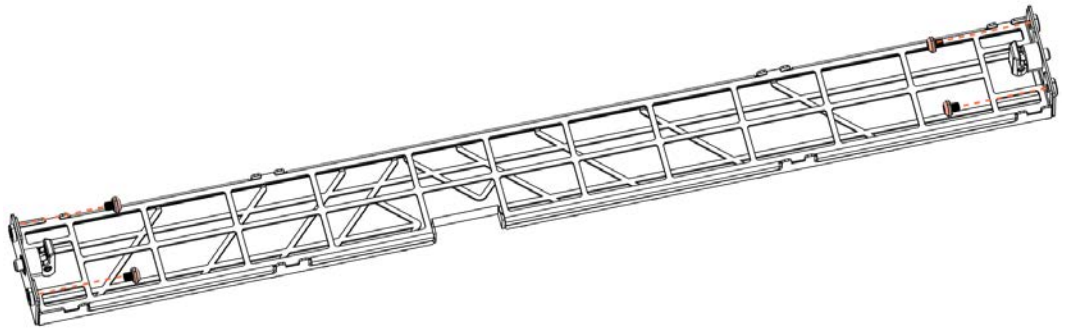
1. Lay the bezel flat on the front.
2. Rotate the plungers upwards to free the filter assembly.



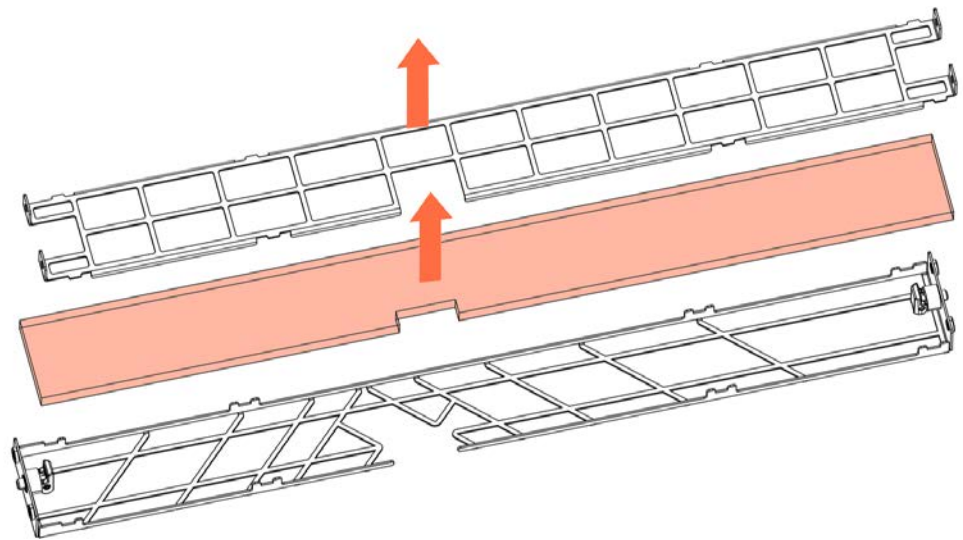
3. Lift the filter assembly out.



4. Remove the screws.



5. Remove the foam from between the two brackets.



---

## 5.2. Installing a bezel filter

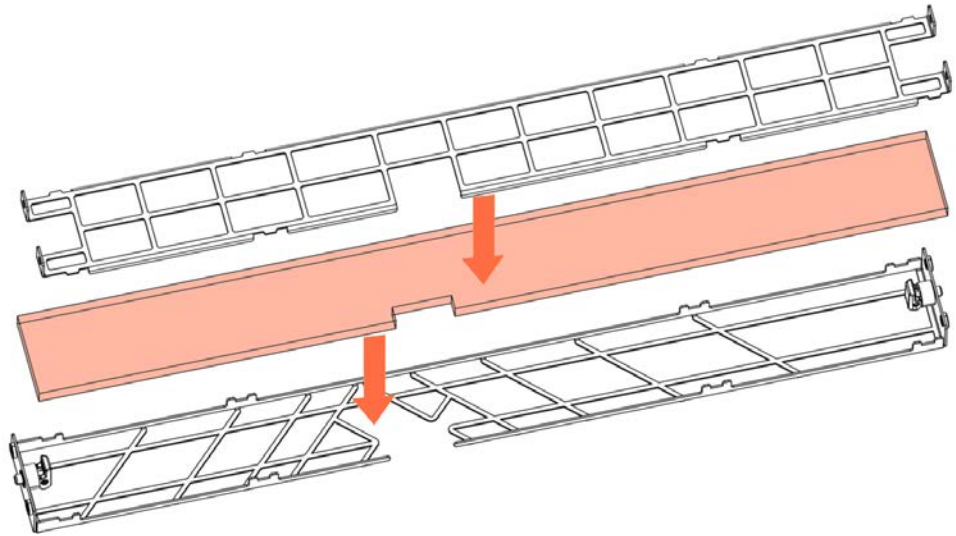
### Required tools

T10 Torx screwdriver

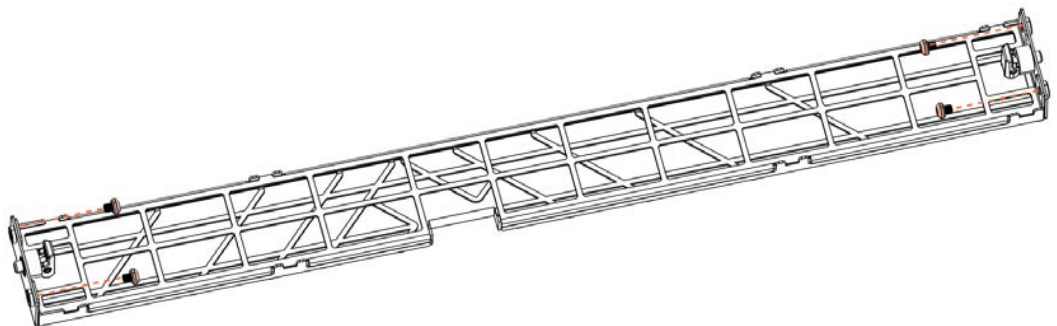
### Procedure

#### 1. Install the filter

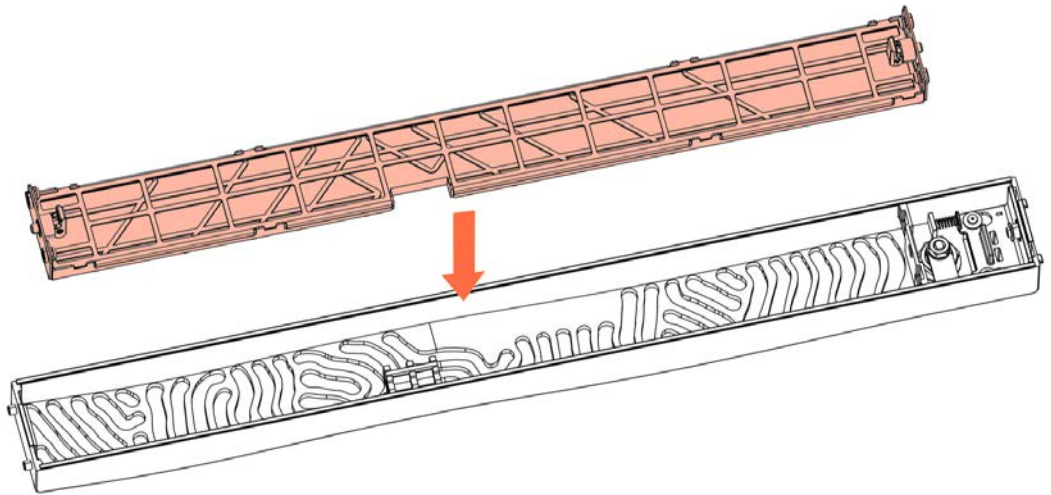
1. Put the new filter in place between the bottom and top filter brackets.



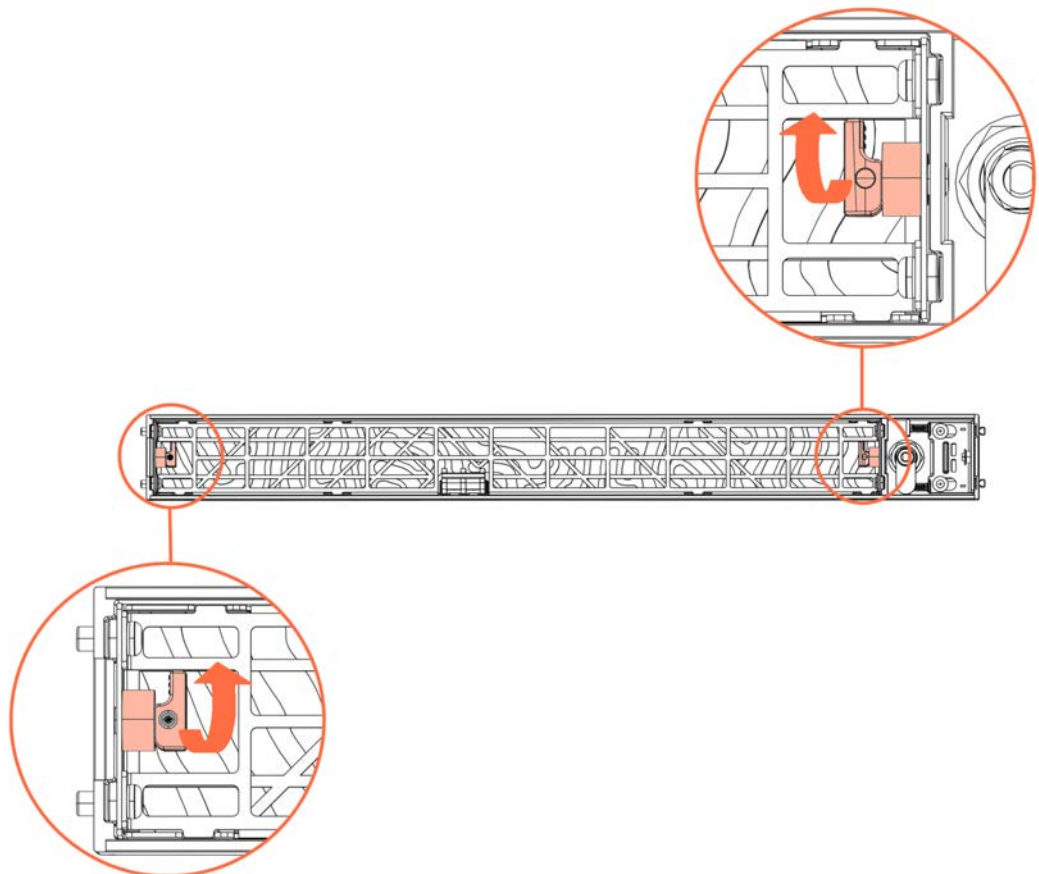
2. Tighten the screws.



3. Put the filter assembly back into the bezel.

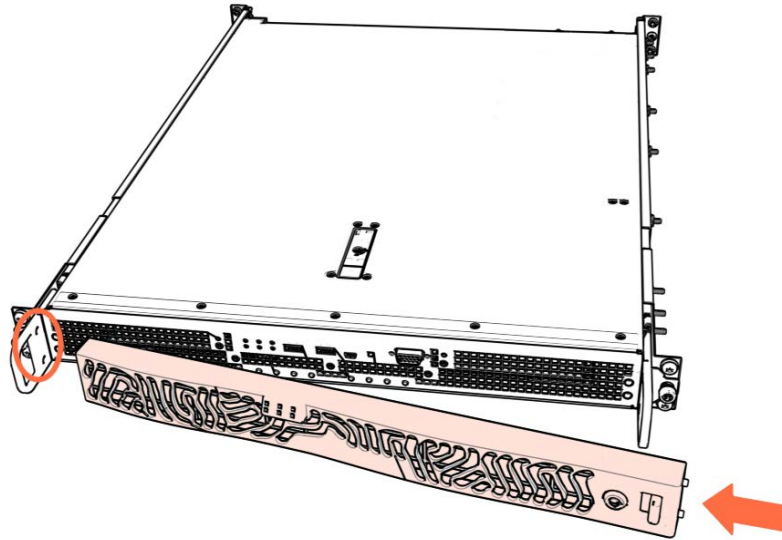


4. Rotate the plungers downwards to lock the filter assembly.

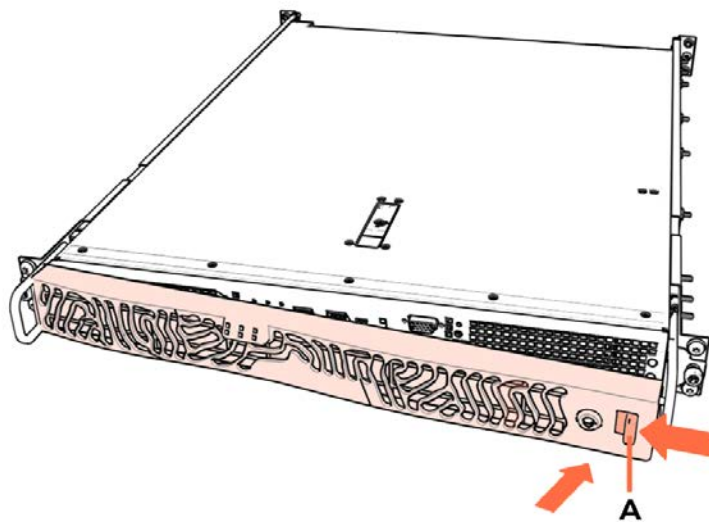


## 2. Install the bezel

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





