

EVIDEN

BullSequana EXD

Installation 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

September 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

Preface	p-1
Intended readers	p-1
Important user information	p-1
Chapter 1. Unpacking the delivery	1-1
1.1. General recommendations	1-1
1.2. Inspecting packaging	1-2
1.3. Checking the delivery	1-3
1.4. Checking labels	1-4
1.4.1. Identification label	1-4
1.4.2. MAC address label	1-6
1.4.3. Fan labels	1-7
1.4.4. Processor label	1-8
Chapter 2. Installing the server	2-1
2.1. Installing the antennas	2-2
2.1.1. Preparing the installation	2-2
2.1.2. Installing the bottom antennas	2-5
2.1.3. Installing the top antennas	2-11
2.1.4. Completing the installation	2-14
2.2. Installing the server on a flat surface	2-16
2.3. Installing the server on a DIN rail	2-17
2.4. Installing the server on a VESA holder	2-20
2.5. Installing the server in a rack cabinet	2-23
2.5.1. Preparing the rail assemblies	2-23
2.5.2. Installing the server into the rack cabinet	2-34
Appendix A. Screws, washers and nuts	A-1

Preface

This guide explains how to install the server for the first time.

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>

Intended readers

This guide is intended for use by instructed or skilled personnel in charge of installing the server.

Important user information

Read this document and the other product documents about installation, configuration, operation, and maintenance of the product before installing, configuring, operating or servicing it.

Activities including installation, adjustments, putting into service, use, and maintenance are required to be carried out by suitably trained personnel in accordance with applicable code of practice.

If the product is used in a manner not specified by the manufacturer, the protection provided by the product may be impaired.



DANGER D049

The product must not be used in life support system or other applications where failure could threaten injury or life, and any such use voids the limited warranty associated to the product.

Chapter 1. Unpacking the delivery

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.

1.1. General recommendations



WARNING W020

The server drawer must not be unpacked before it has reached the room temperature (24 hours in the computer room).

1.2. Inspecting packaging

Before unpacking, check the indicators on the shockwatch and tiltwatch labels, stuck on the packaging.

If one of the labels is red, make a note on the delivery slip and check packaging contents.

Label	Description
	Shockwatch label
	Transport label
	Tiltwatch label

1.3. Checking the delivery

According to the configuration, the following items are included.

- Antennas
- Screws and washers
- Kit for installation
- The BullSequana EXD server

1.4. Checking labels

Safety warning labels, including safety notices and graphic symbols, are present on the server. Check that the electrical installation complies with the label details.

1.4.1. Identification label

Description



Mark	Description
A	Model name
B	Serial number
C	Electrical characteristics
D	Nominal power
E	Recycling symbol: it is mandatory to reuse and recycle electronic and electrical equipment properly
F	Electric hazard symbol: Caution! Risk of electric shock
G	Multiple power sources symbol: Caution! The system has more than one power source which must all be disconnected before servicing to avoid shock hazard
H	Altitude symbol: the system must not be operated at an altitude higher than 2000 meters
I	Tropicalization symbol: the system must be operated within the adequate limits of temperature and humidity



CAUTION C044

This unit has more than one power supply cord. Disconnect all power supply cords from the unit before servicing. Proceed as follows:

- 1. Power OFF the system**
- 2. Switch OFF the site power breakers**
- 3. Remove all power supply cords from the system**



WARNING W071

This device complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference and**
- (2) this device must accept any interference received including interference that may cause undesired operation.**

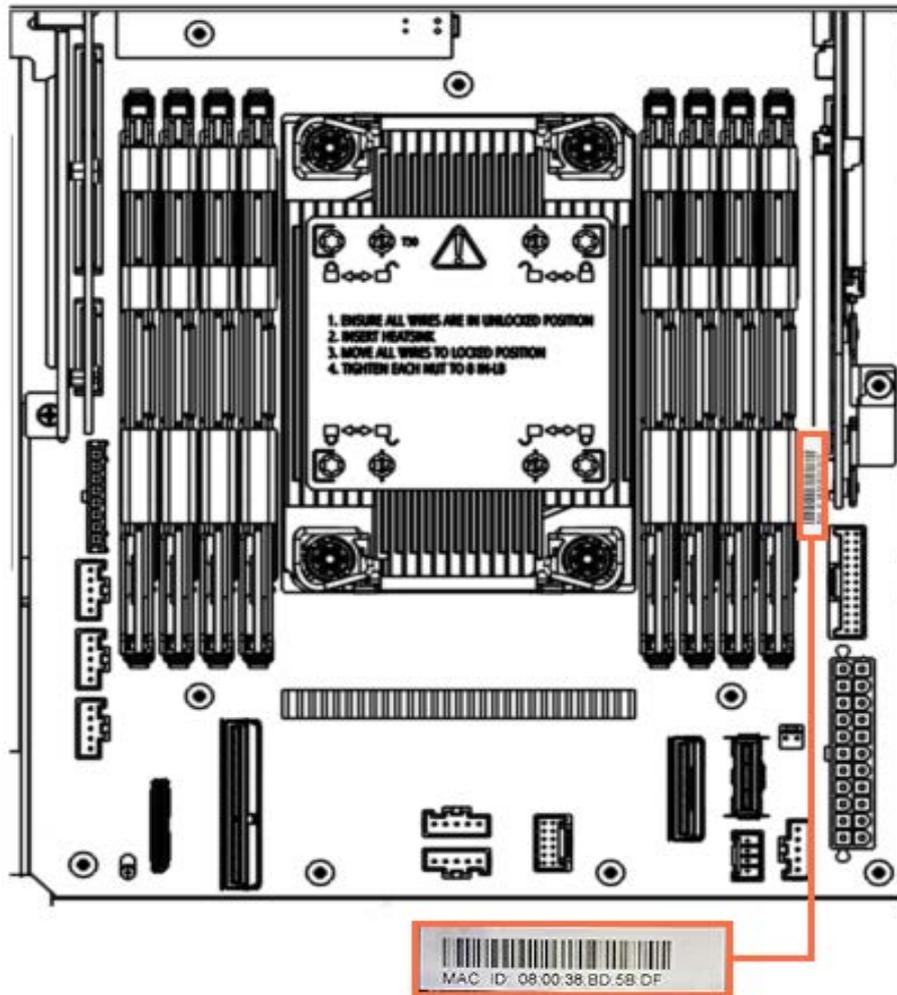
Model name

Model name	Commercial name	Serial number
BSEXD1	BullSequana EXD 2U server with 1300W power supply	XAN-ORD-xxxxx

1.4.2. MAC address label

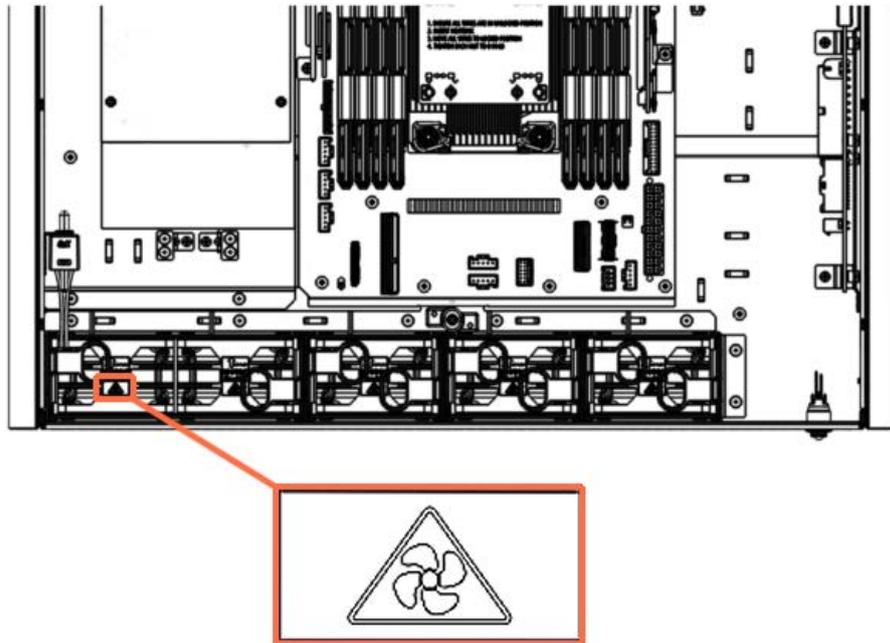
Important It is recommended to write down the MAC address in case the label is lost.

The label is on the motherboard, next to the memory modules.



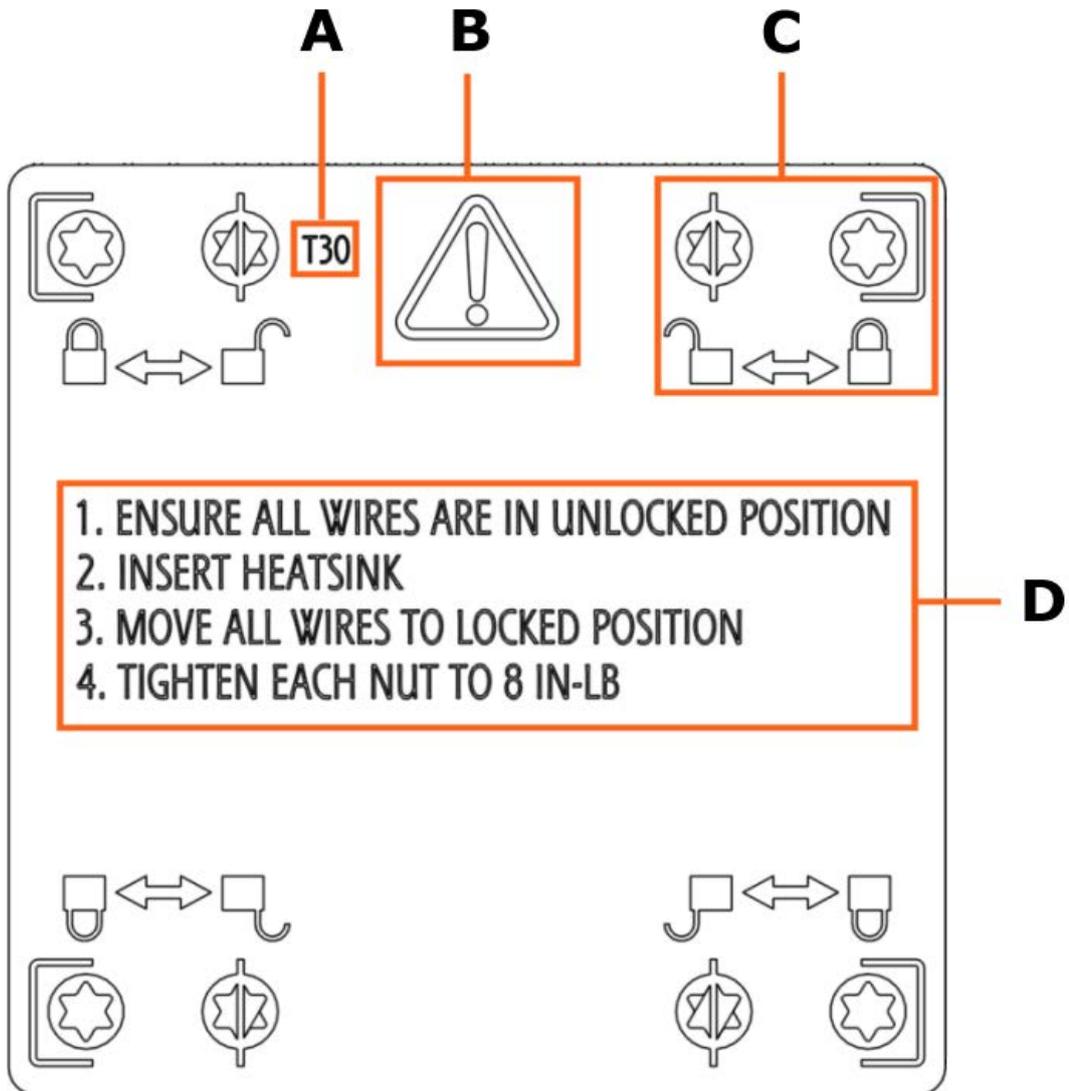
1.4.3. Fan labels

The labels are on the fans, inside the server.



1.4.4. Processor label

The label is on top of the processor assembly.



Mark	Description
A	Torque value
B	Warning symbol
C	Locking symbols
C	Locking instructions

Chapter 2. Installing the server



CAUTION C050

The device must be installed in a location where the transmitting antenna is at least 20 cm from any people in order to comply with radio frequency exposure regulatory requirements.



WARNING W079

Devices and antennas must not be operated with other antennas or transmitters. Only devices and antennas, tested and approved by the manufacturer, should be used. It is prohibited to change the configuration of devices or antennas. Any changes will violate safety rules.



WARNING W080

Use only antennas which have been provided and approved by the manufacturer. Non-approved antennas may produce excessive radio frequency transmitting power and may exceed FCC/IC limits. Non-approved antenna use is prohibited.

2.1. Installing the antennas

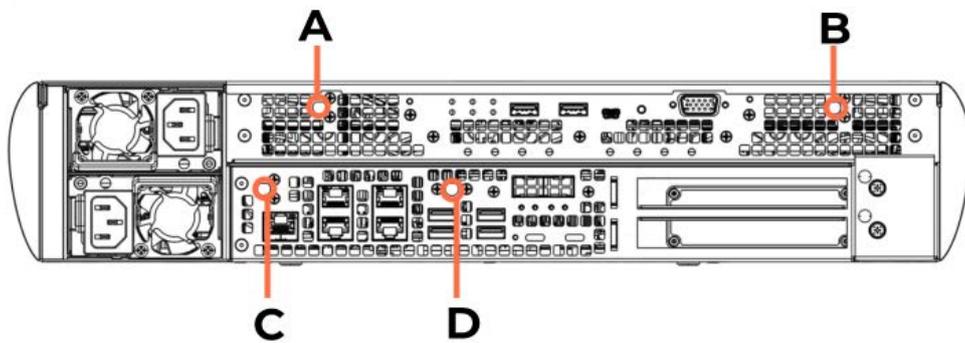
Required tools

- Cross-headed screwdriver
- T10 Torx screwdriver
- T8 Torx screwdriver

2.1.1. Preparing the installation

Procedure

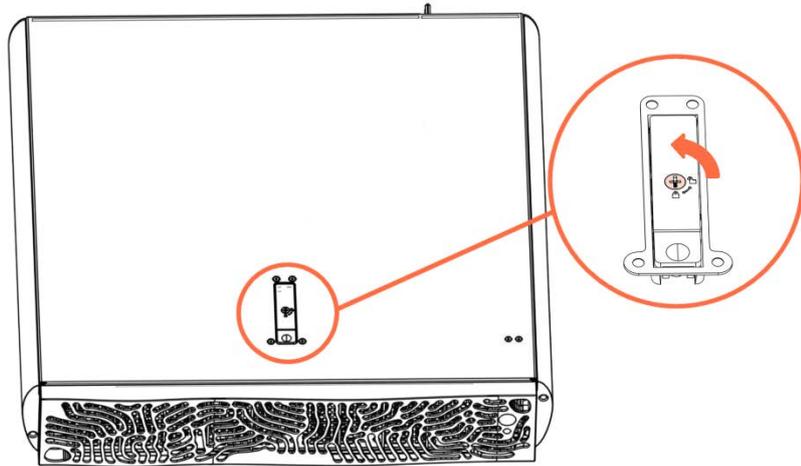
1. Locate the position of each antenna



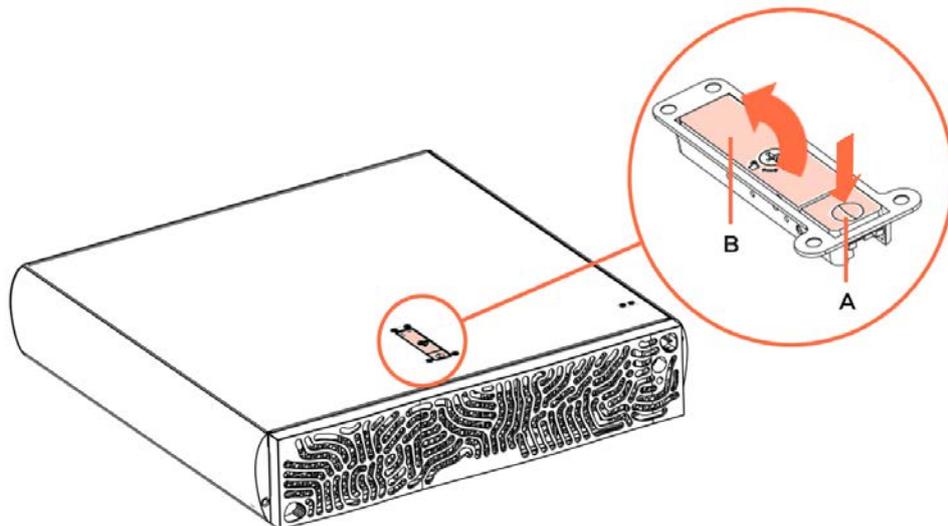
	Configuration 1 2 antennas	Configuration 2 3 antennas	Configuration 3 3 antennas	Configuration 4 4 antennas
A	<ul style="list-style-type: none"> ▪ Dual-band 2.4-5.9 GHz WIFI ▪ LoRa 	Dual-band 2.4-5.9 GHz WIFI	LTE/5G	Dual-band 2.4-5.9 GHz WIFI
B	LTE/5G	Dual-band 2.4-5.9 GHz WIFI	LTE/5G	Dual-band 2.4-5.9 GHz WIFI
C				LTE/5G
D		LTE/5G	<ul style="list-style-type: none"> ▪ Dual-band 2.4-5.9 GHz WIFI ▪ LoRa 	LTE/5G

2. Remove the top cover

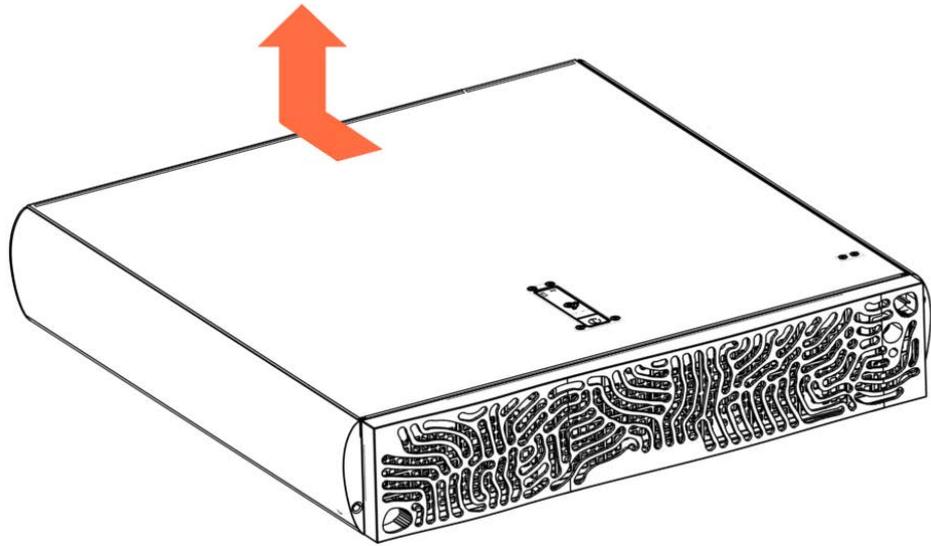
1. Loosen the captive screw to unlock the cover latch.



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.

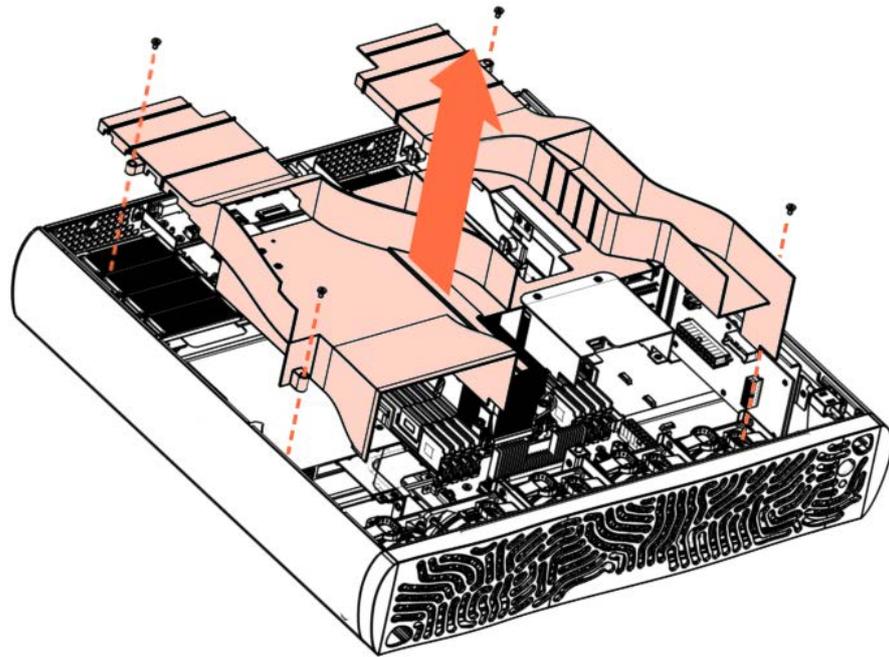


2.1.2. Installing the bottom antennas

Procedure

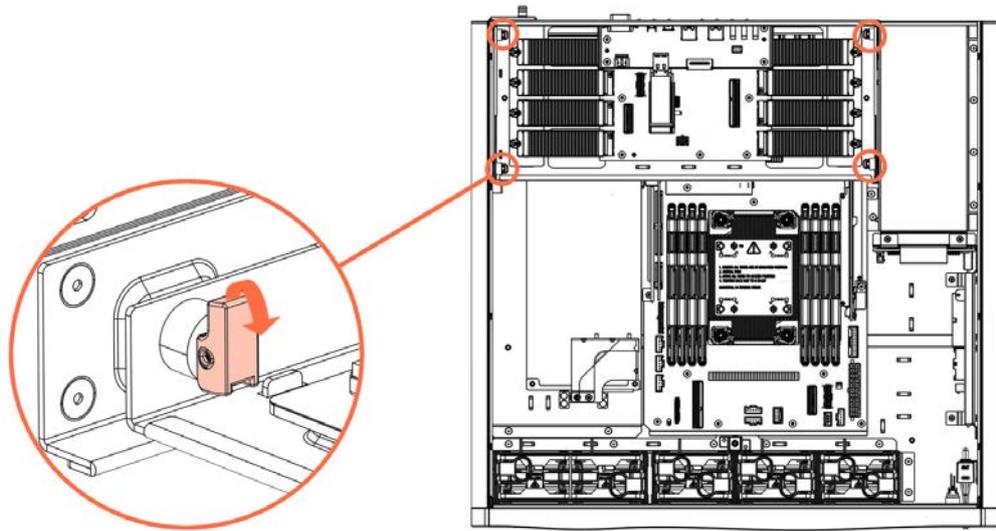
1. Remove the air duct

1. Remove the screws to unlock the air duct.
2. Remove the air duct.

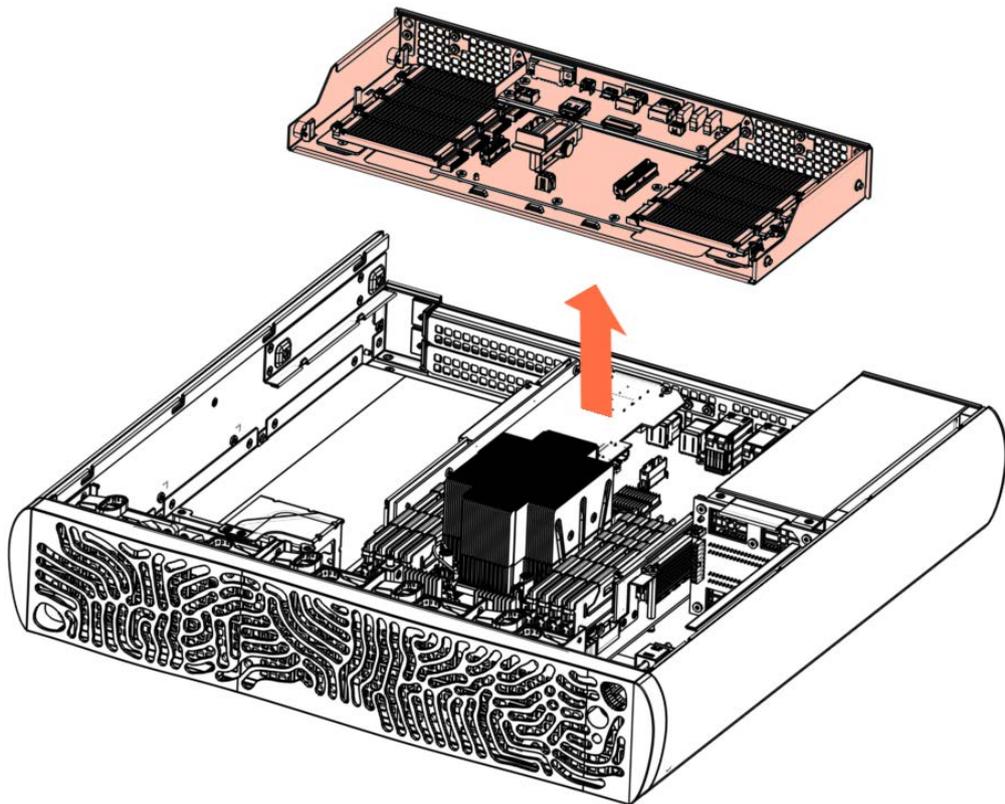


2. Remove the M.2 NVMe disk tray

1. Rotate the plungers of the tray downwards.

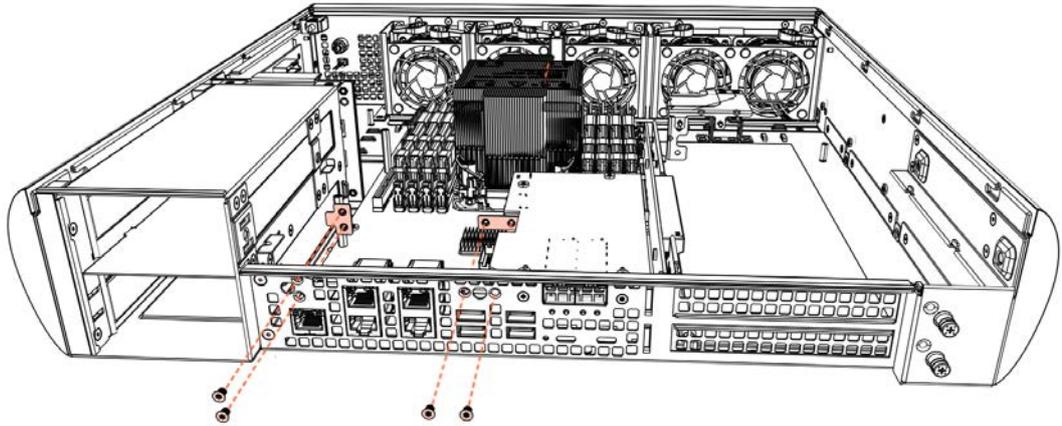


2. Lift the tray up.



3. Remove the dummy bracket from each position where an antenna is to be installed

Remove the screws to detach the dummy bracket.

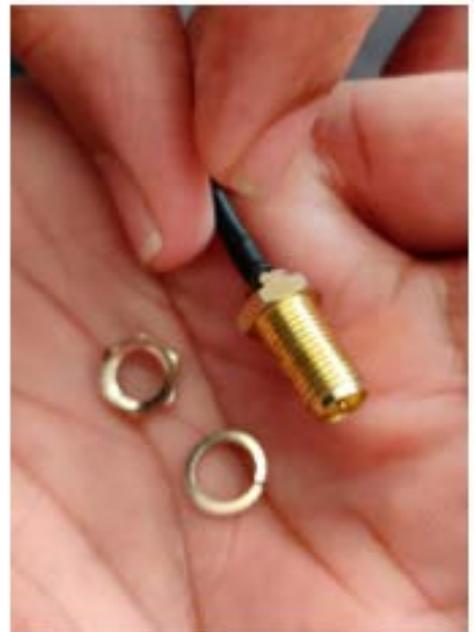


4. Install each antenna cable

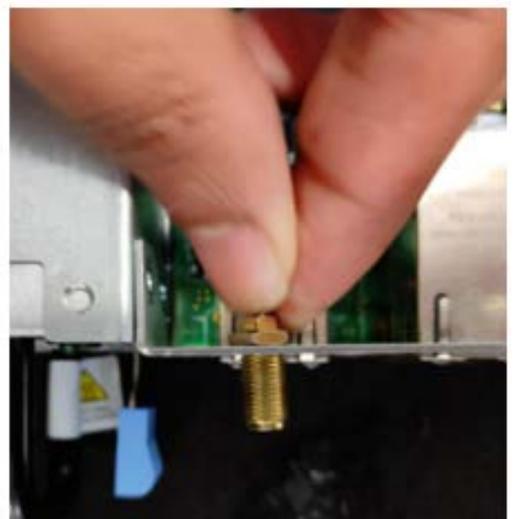
1. Remove the connector from the antenna.



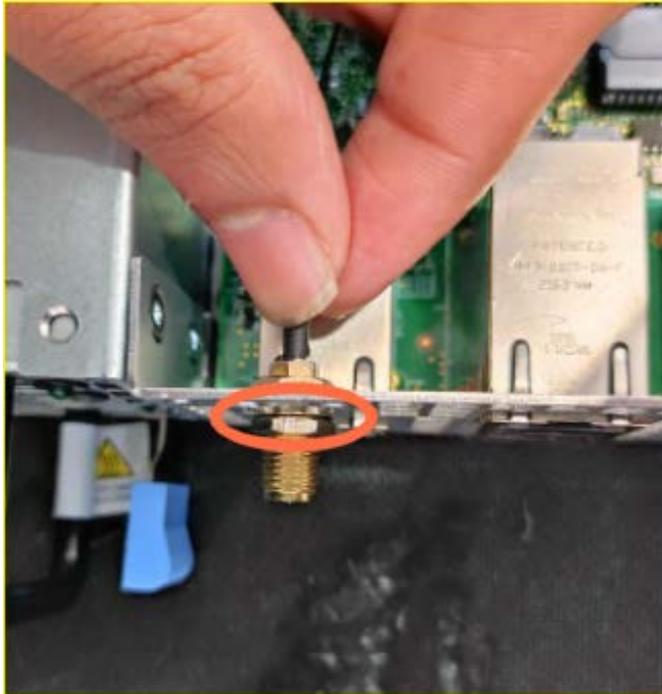
2. Remove the nut and the washer from the connector.



3. Insert the connector into the cutout from inside the server.



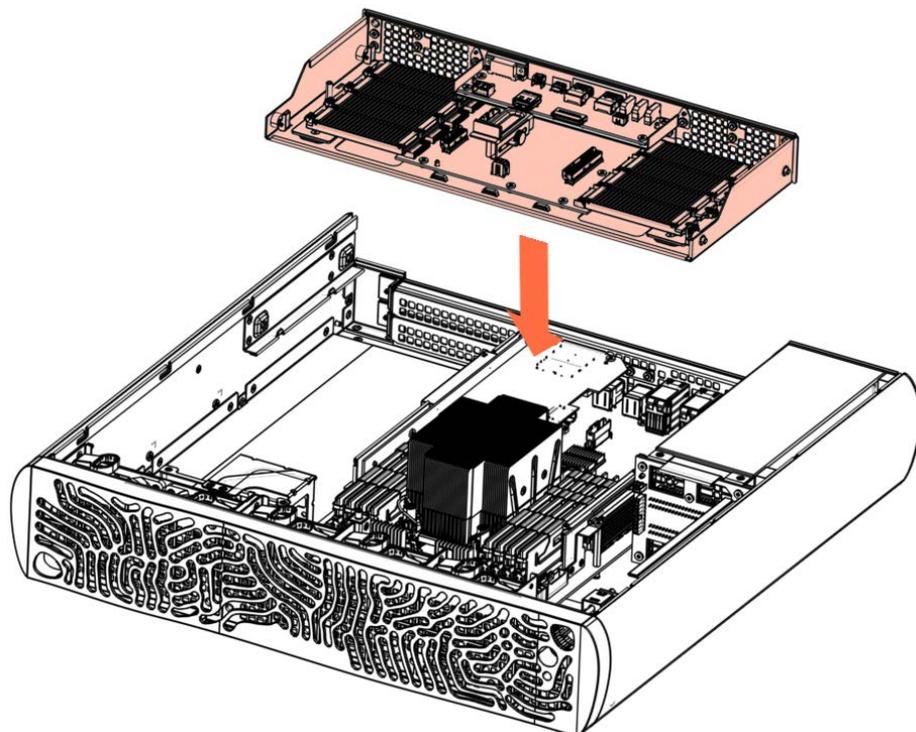
4. Install the washer and the nut onto the connector.



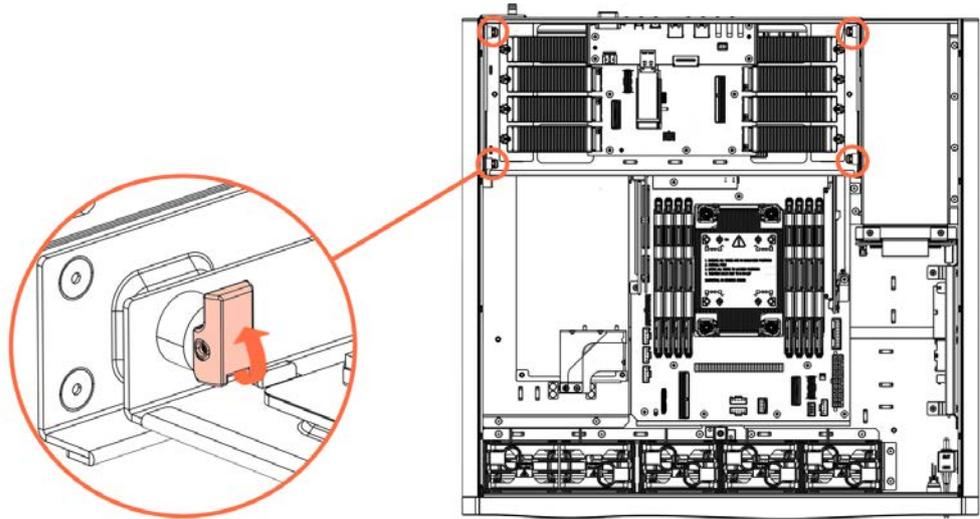
5. Connect the other end of the cable to the adequate card.

5. Install the M.2 NVMe disk tray

1. Install the tray onto the support brackets.



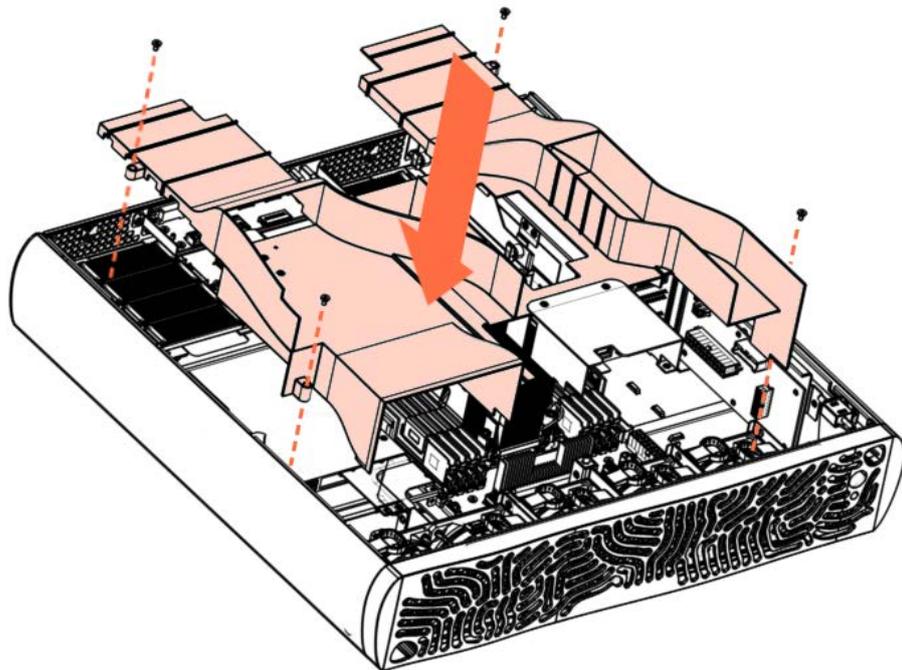
2. Rotate the plungers upwards to lock the tray.



6. Install the air duct

1. Install the air duct.
2. Tighten the screws to lock the air duct into place.

 **Front view**

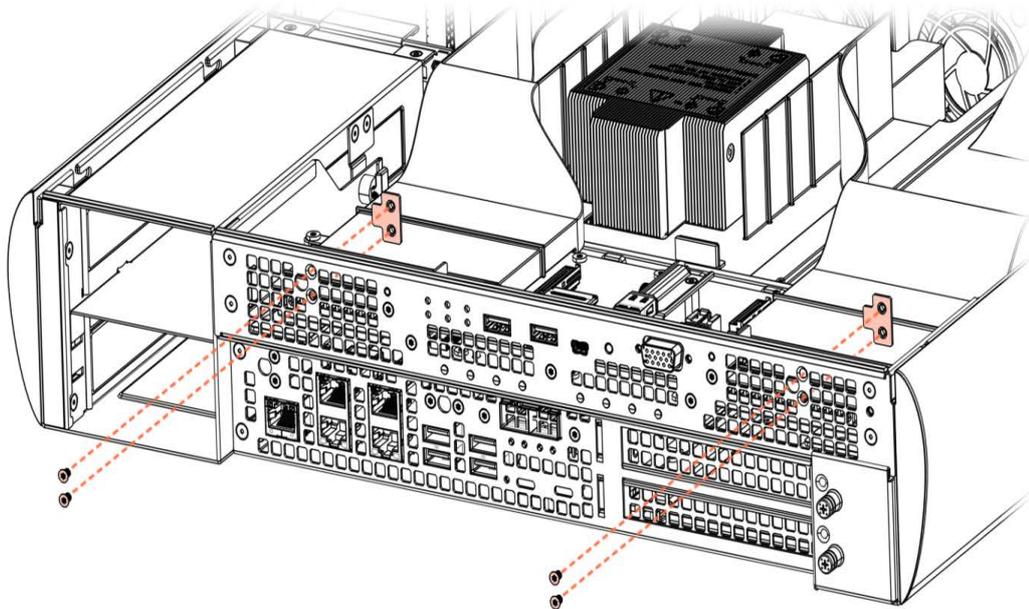


2.1.3. Installing the top antennas

Procedure

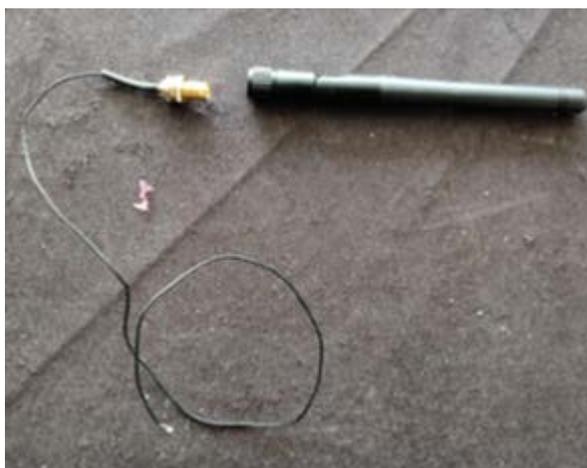
1. Remove the dummy bracket from each position where an antenna is to be installed

Remove the screws to detach the dummy bracket.

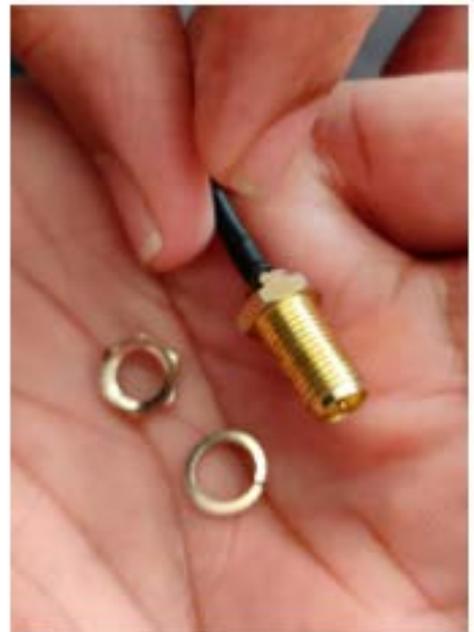


2. Install each antenna cable

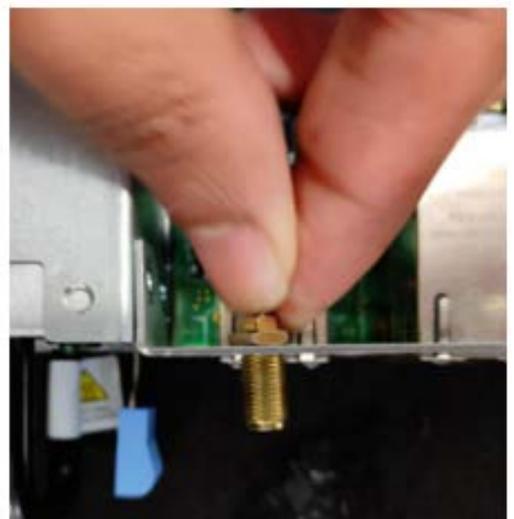
1. Remove the connector from the antenna.



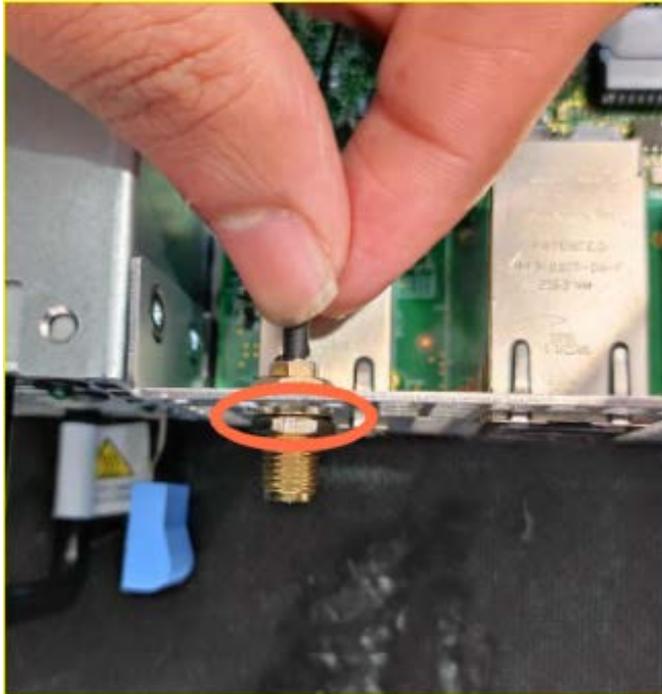
2. Remove the nut and the washer from the connector.



3. Insert the connector into the cutout from inside the server.



4. Install the washer and the nut onto the connector.



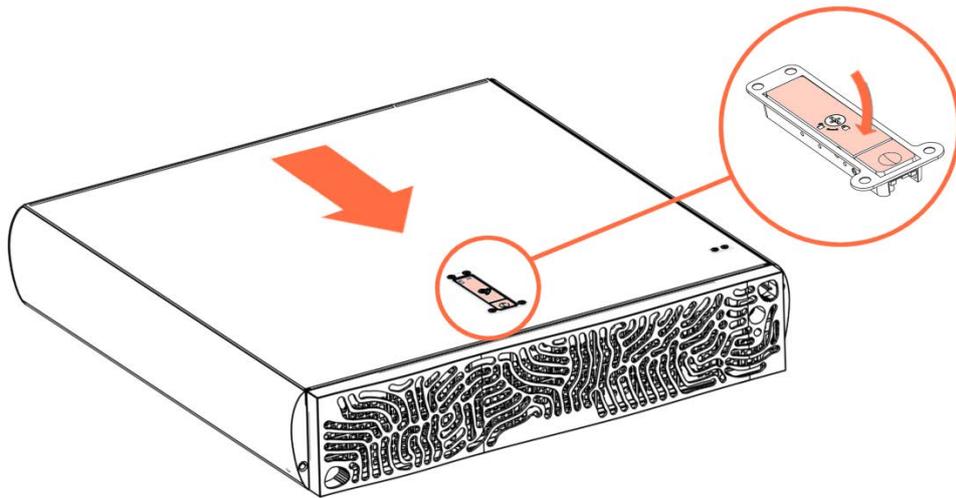
5. Connect the other end of the cable to the adequate card.

2.1.4. Completing the installation

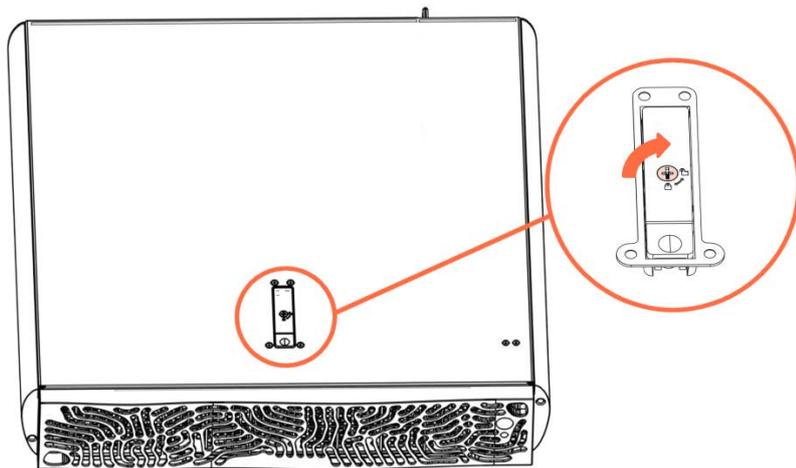
Procedure

1. 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.

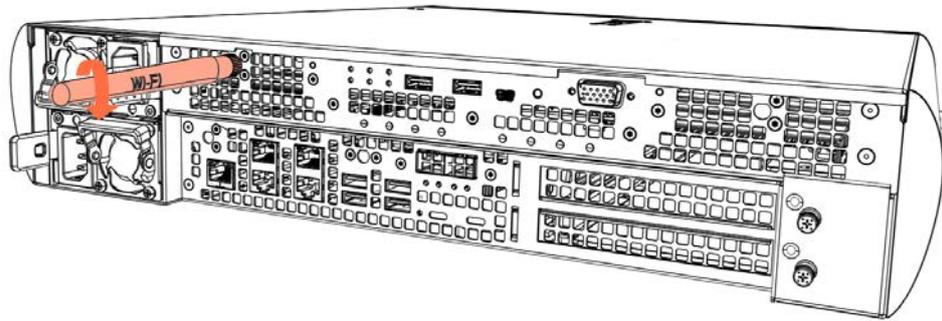


3. Tighten the captive screw to lock the cover latch.



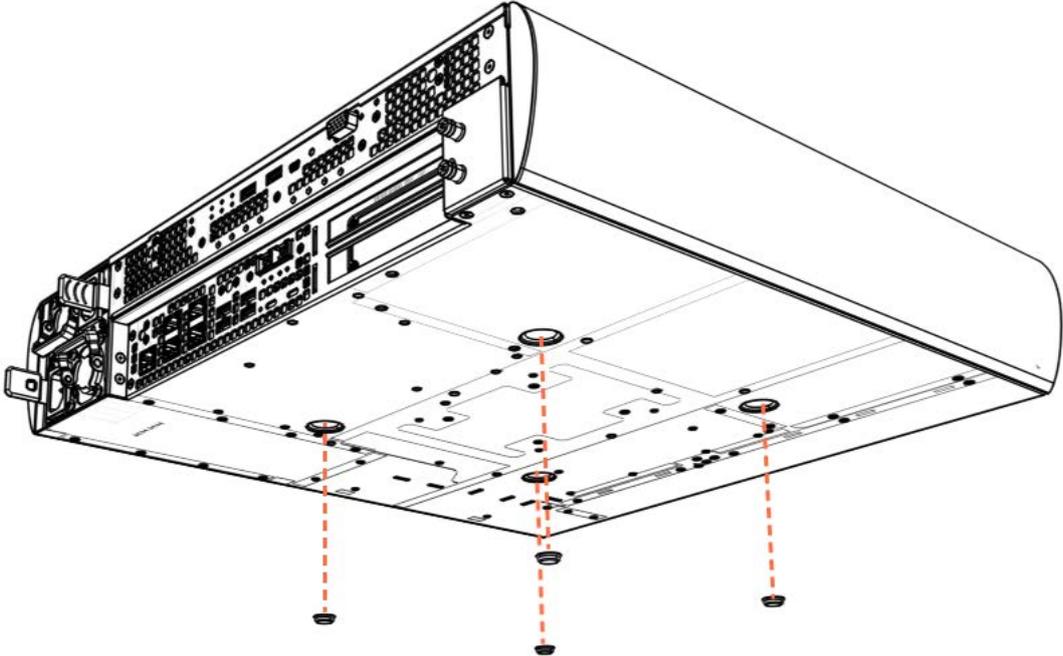
2. Turn each antenna to fix it into place

 Rear view



2.2. Installing the server on a flat surface

Stick on the adhesive bumps under the server and install it on the flat surface.



2.3. Installing the server on a DIN rail

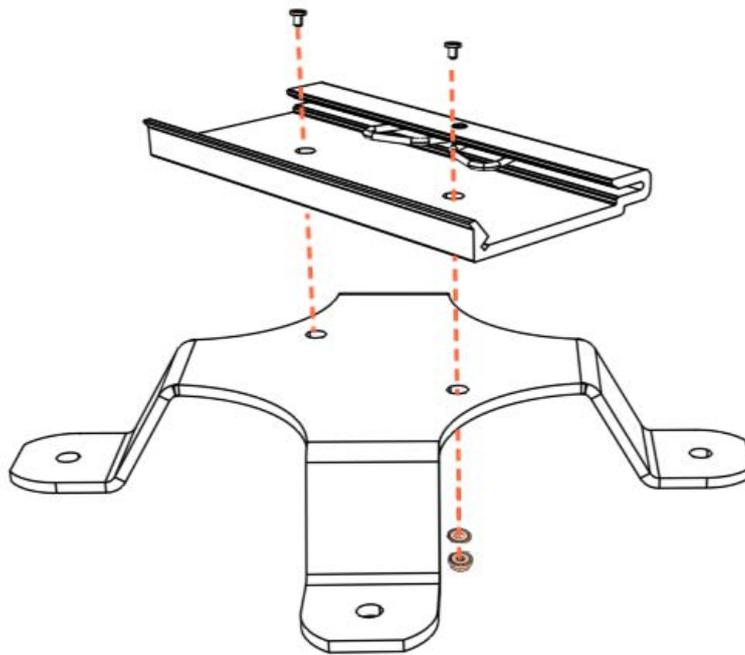
Required tools

- T20 Torx screwdriver
- Phillips screwdriver
- Screws, washers and nuts

See [Appendix A. Screws, washers and nuts](#)

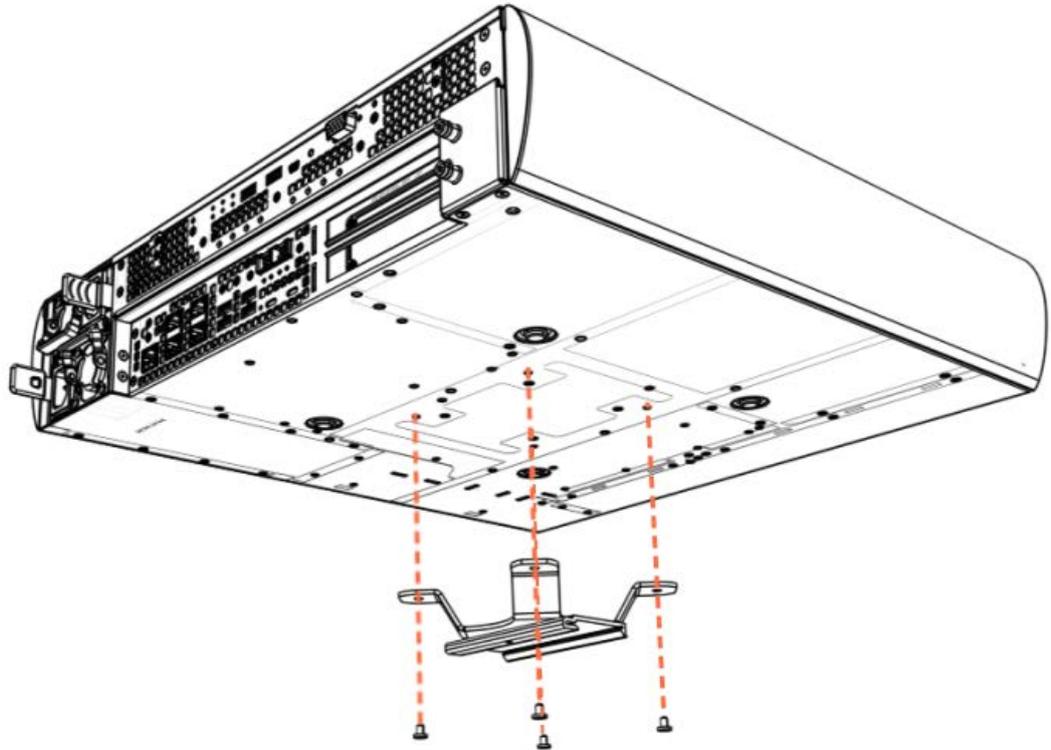
Procedure

1. Assemble the DIN rail kit with screws S6, washers W2 and nuts N2.

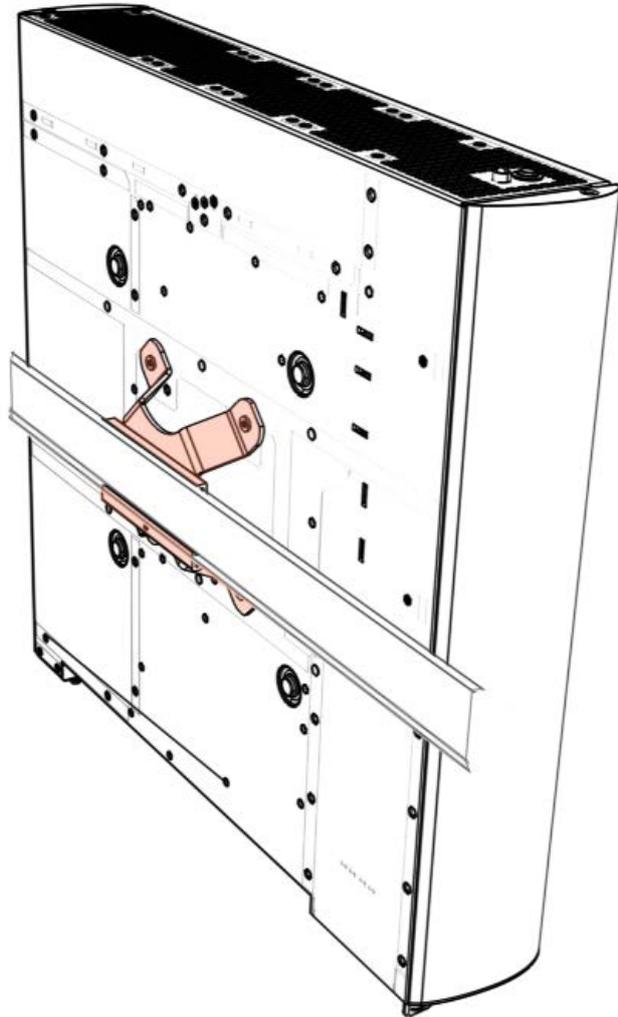


2. Assemble the DIN rail and the server.

Tighten the screws S8.



3. Turn the BullSequana EXD server to the upright position.
4. Attach the server to the DIN rail by carefully tilting it.



2.4. Installing the server on a VESA holder



WARNING W088

To secure the server safely to the wall the correct type of screw anchor must be used. The screw anchors should be designed for the wall construction material (wood, concrete, etc.) and capable of bearing a weight of up to 30 kg.

Required tools

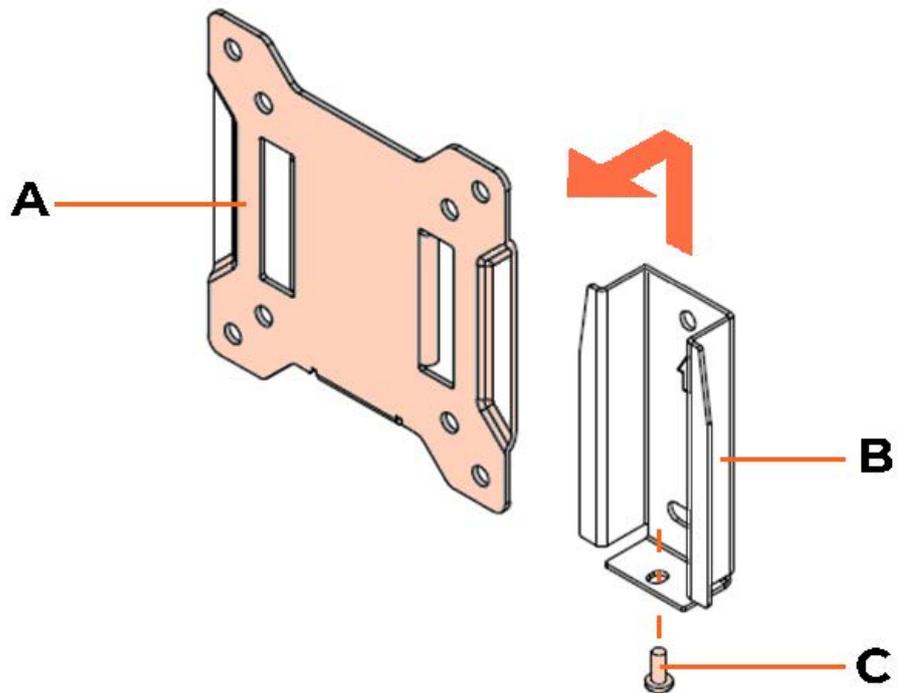
- Phillips screwdriver
- Hex screwdriver
- Drill
- Hammer
- Screws, washers and nuts

See [Appendix A. Screws, washers and nuts](#)

Procedure

1. Separate the monitor plate from the wall plate

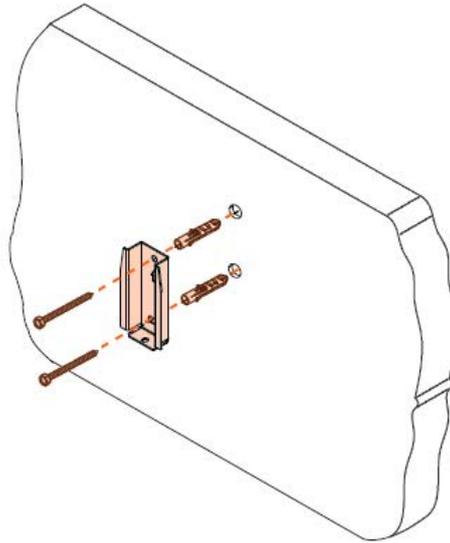
1. Remove the screw (C).
2. Slide the monitor plate (A) upwards to remove it from the wall plate (B).



2. Install the wall plate on a wall

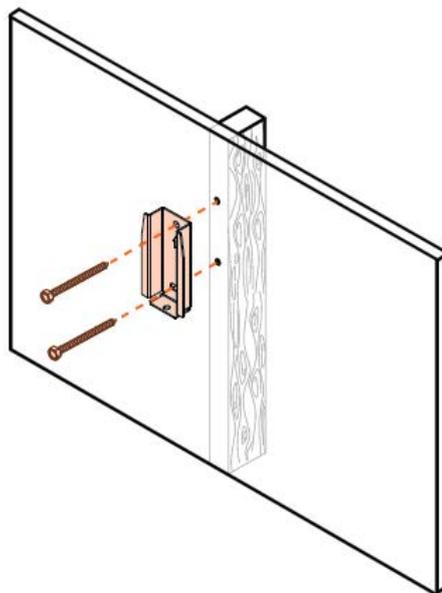
Case of solid wall

1. Drill two holes in the wall.
2. Fix the wall plate using screw anchors and lag bolts.



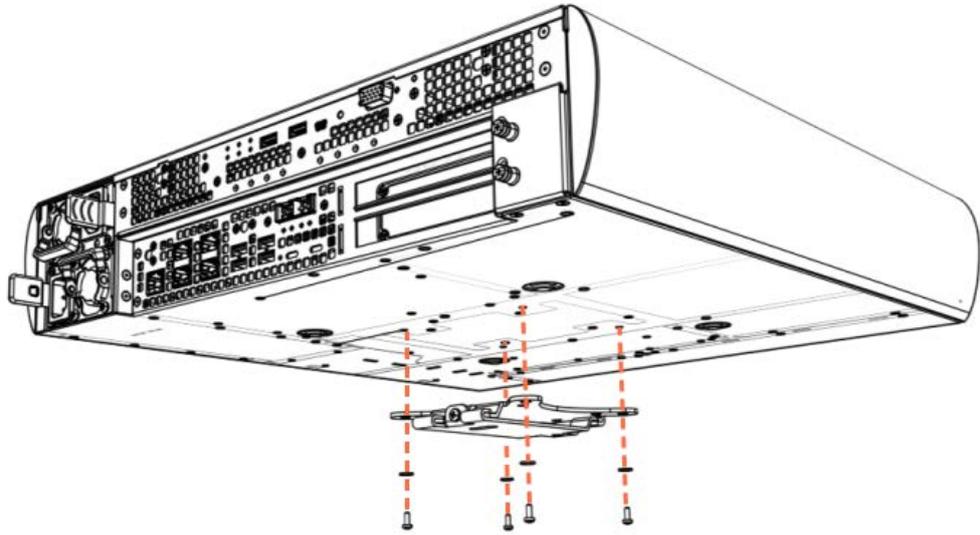
Case of wooden wall

1. Drill two holes in the wall.
2. Fix the wall plate using two lag bolts.



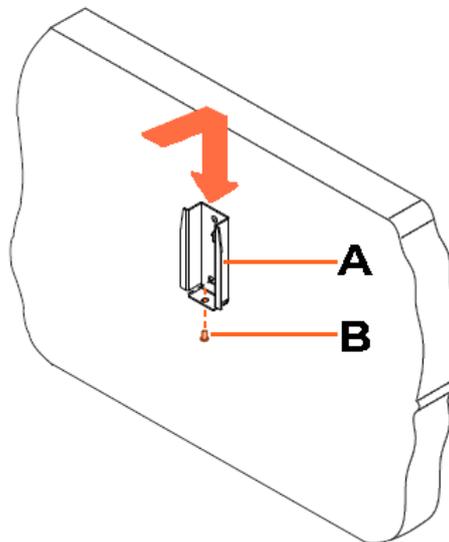
3. Install the monitor plate on the server

Tighten the screws S7 with washers W3.



4. Install the server on the wall

1. Slide the monitor plate downwards into the wall plate (A).
2. Tighten the screw (B) to secure the server in place.



2.5. Installing the server in a rack cabinet

2.5.1. Preparing the rail assemblies

Required tools

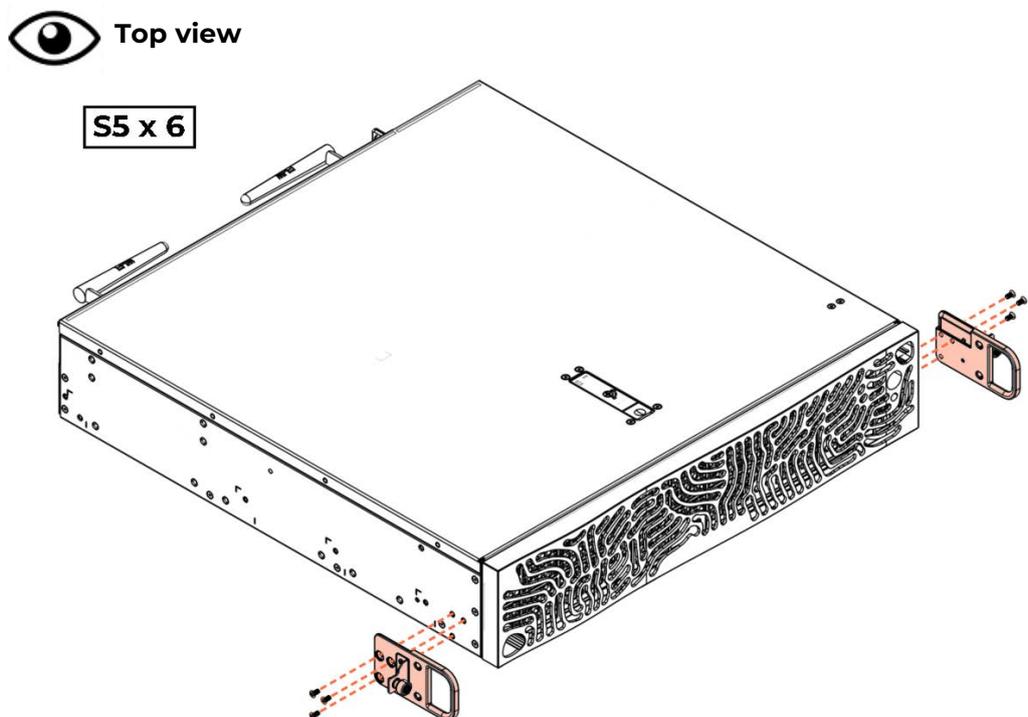
- PH1 cross-headed screwdriver
- PH2 cross-headed screwdriver
- 3 mm flat screwdriver
- T10 Torx screwdriver
- Two slide rails
- Two rear brackets
- Two front brackets
- Screws, washers and nuts

See [Appendix A. Screws, washers and nuts](#)

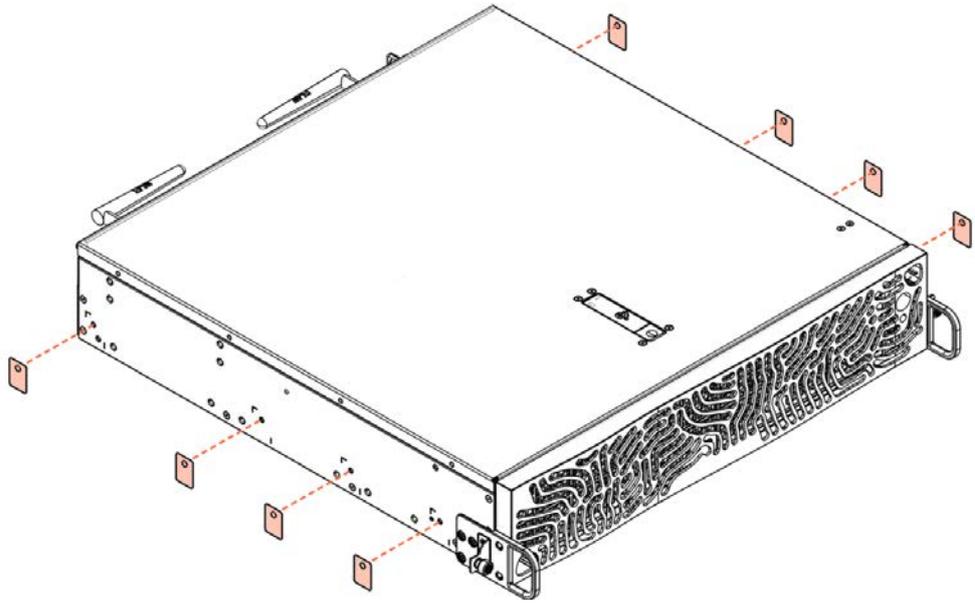
Procedure

1. Prepare the server

1. Install the handles onto the server.



2. Stick the Mylar sheets on each side of the server.

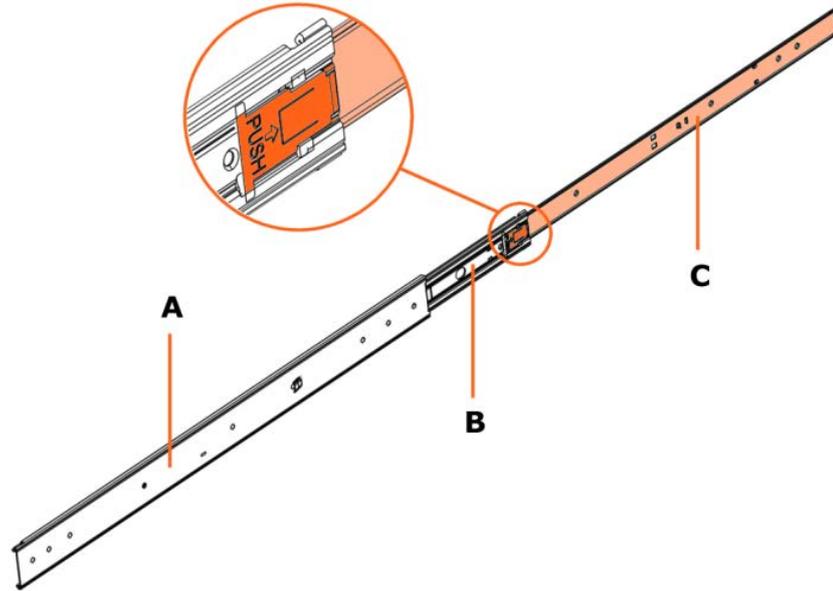


2. Unpack the slide rails

3. Remove the inner rails

For each slide rail, perform the following operations:

1. Pull the inner rail (C) out until it clicks.
2. Push the release latch in.

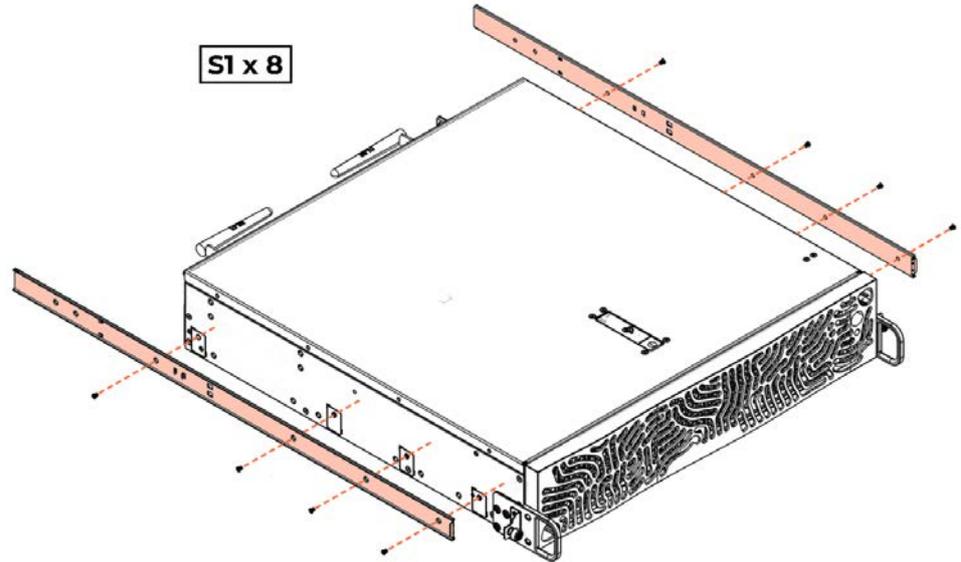


Mark	Description
A	Outer rail
B	Middle rail
C	Inner rail

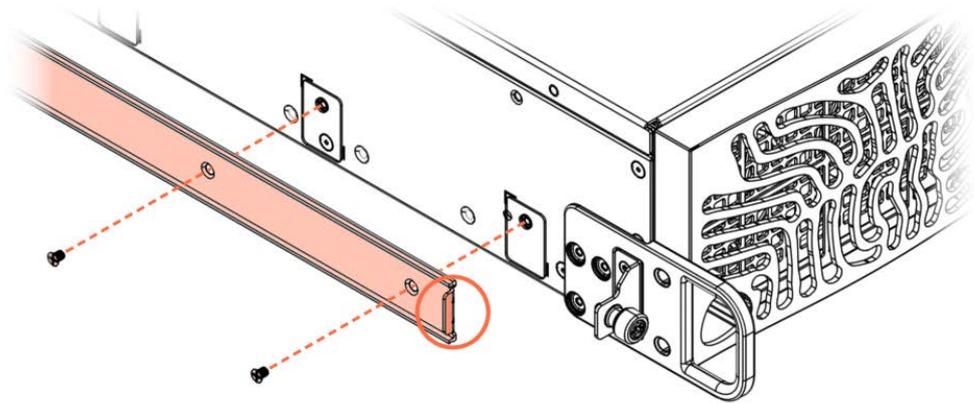
3. Remove the inner rail completely.

4. Install the inner rails onto the server

1. Ensure that the inner rail protruding edge is at the front of the server.

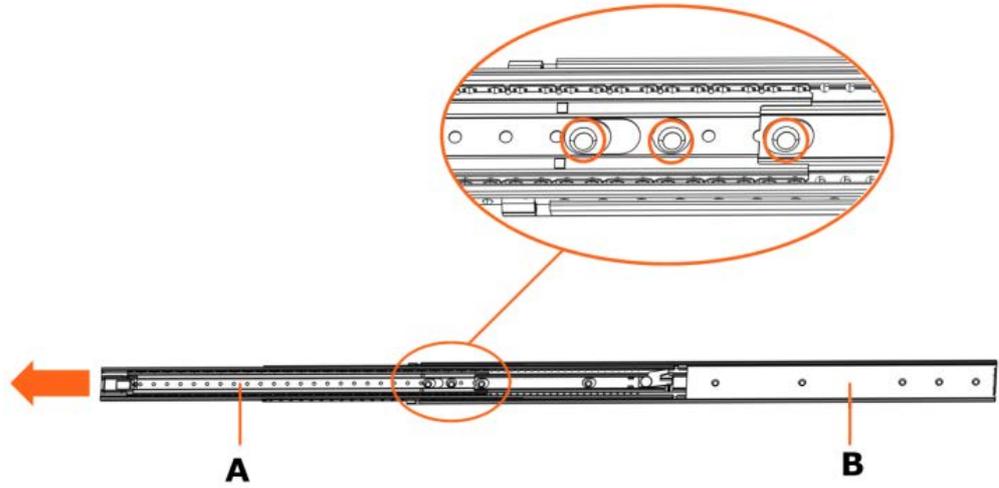


2. Tighten the screws.

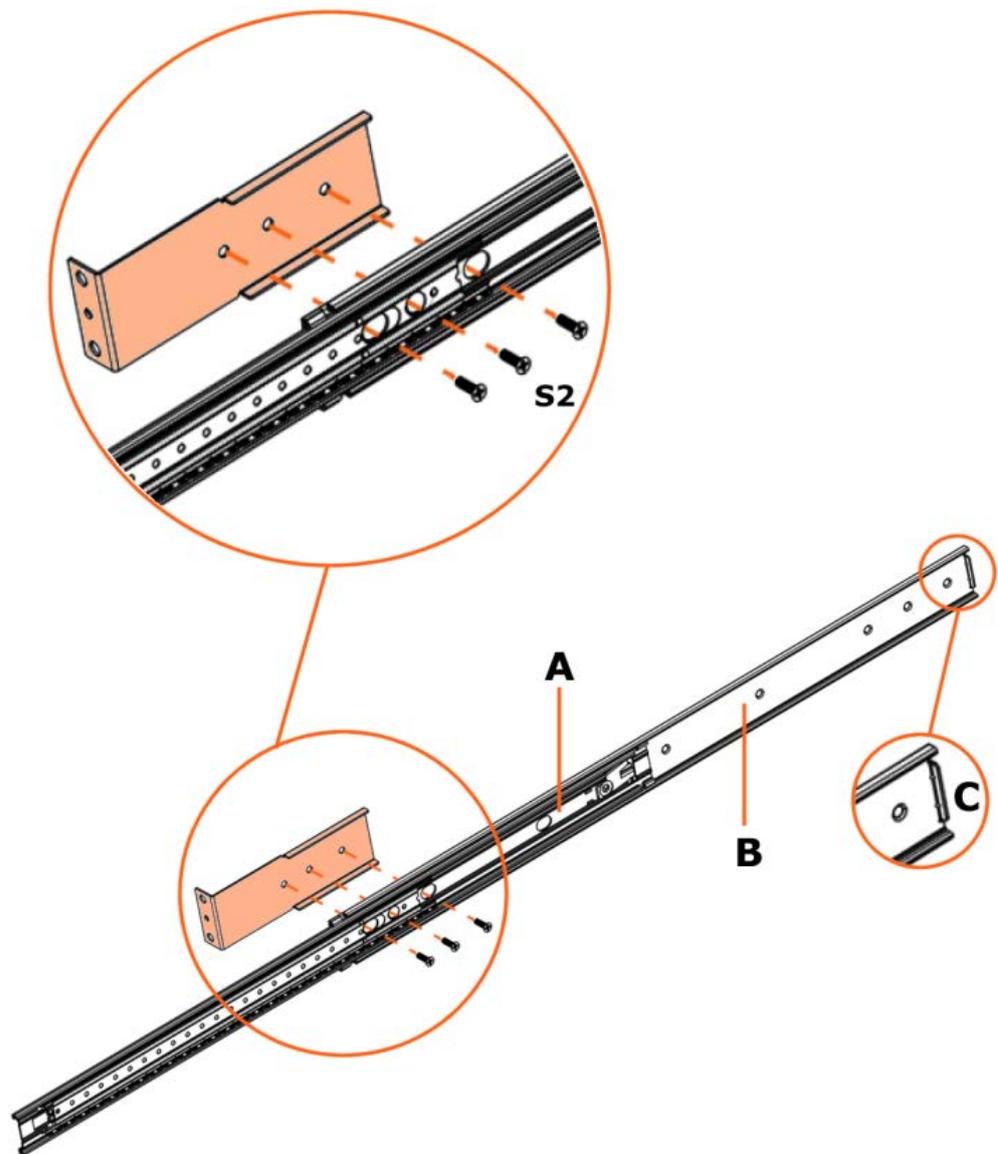


5. Install a front bracket onto each outer rail

1. Pull the middle rail (A) out until it clicks.
2. Check that the outer rail (B) mount holes underneath are exposed.



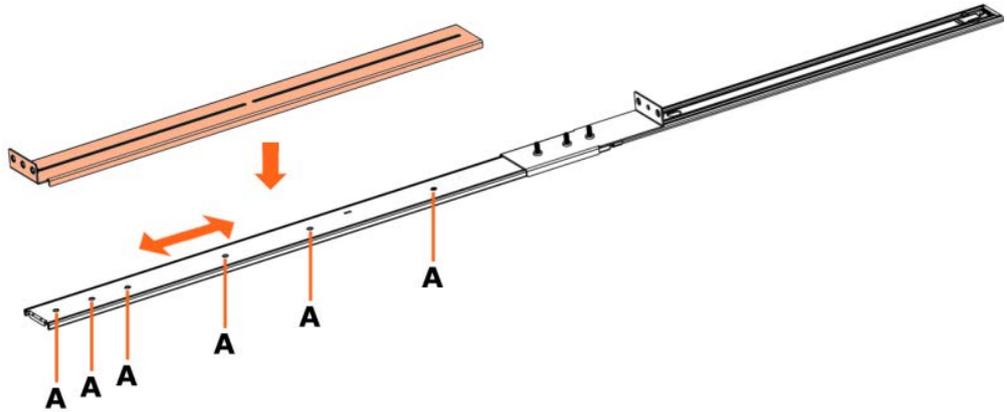
3. Attach the front bracket to the outer rail.



Mark	Description
A	Middle rail
B	Outer rail
C	Rear edge

6. Install a rear bracket onto each outer rail

1. Place a rear bracket onto the outer rail.



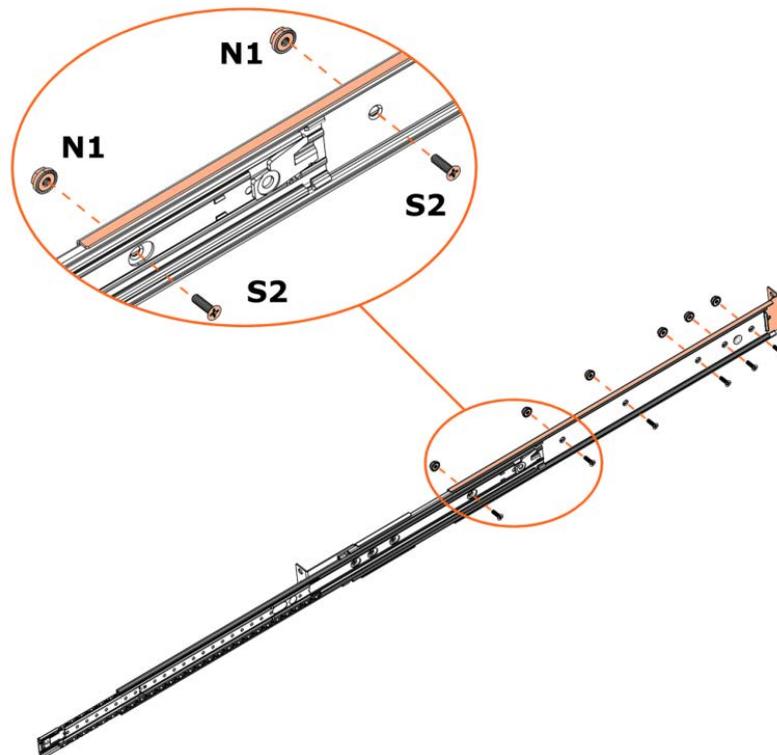
2. Adjust the rear bracket position on the outer rail to match the rack cabinet depth.

According to the rack cabinet depth the number of rear bracket mount holes (A) used varies from three to six.

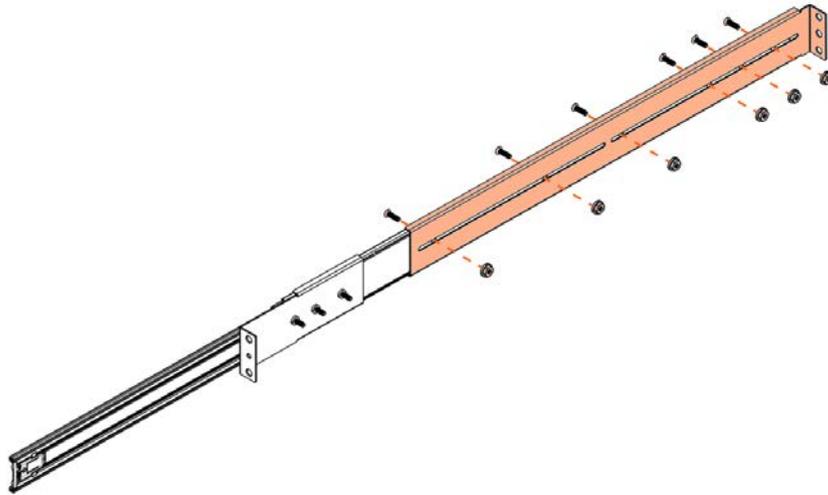
600 mm deep rack cabinet



Rear view

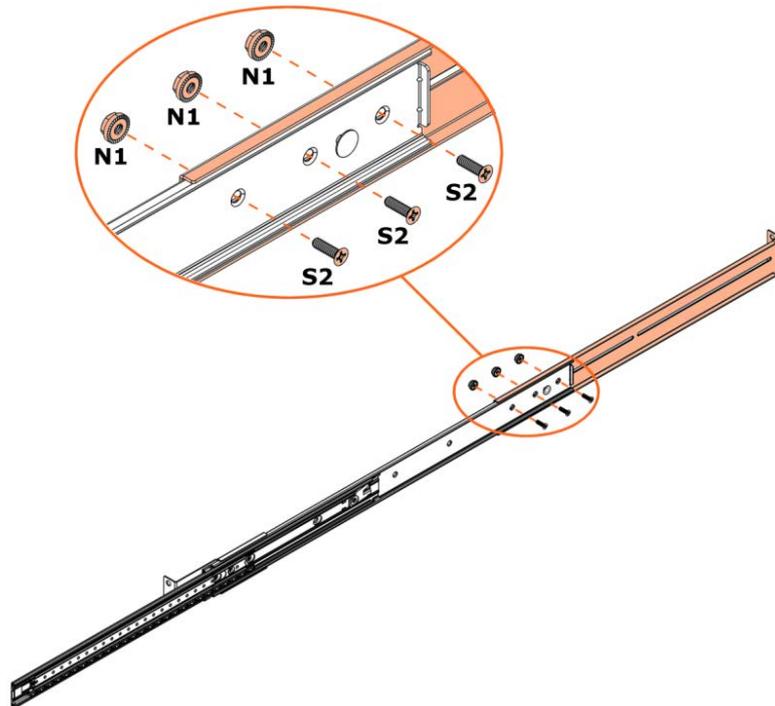


 **Front view**

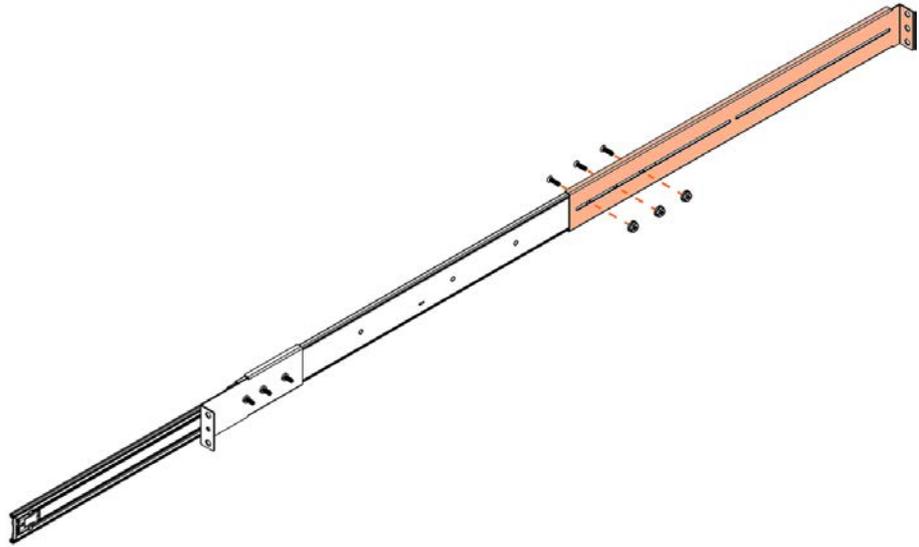


900 mm deep rack cabinet

 **Rear view**



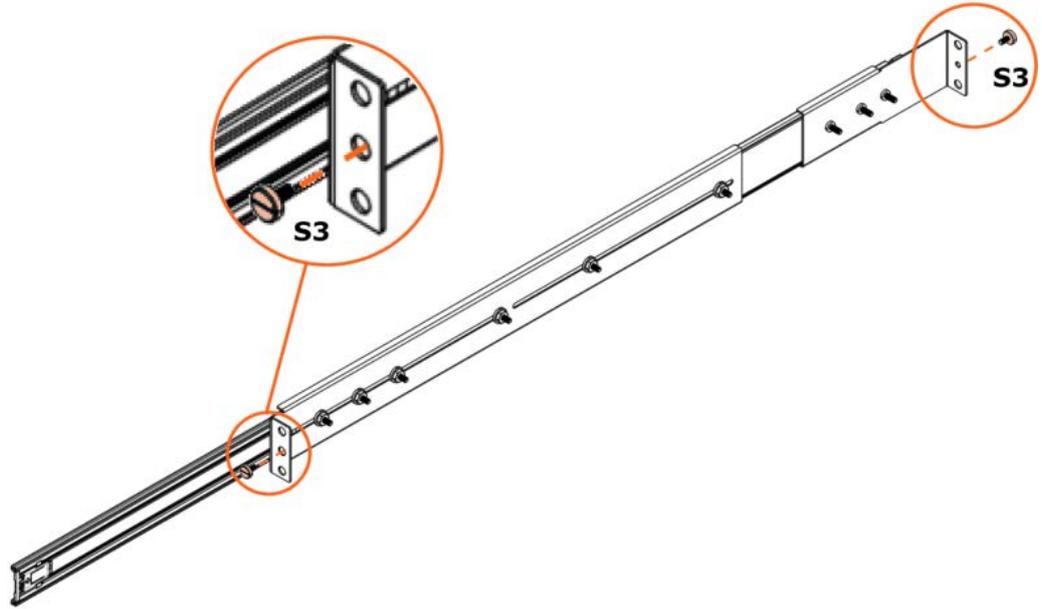
 **Front view**



3. Partially tighten the screws to secure the rear brackets into place.
4. Check that the distance between edge of the rear bracket and the edge of the front bracket matches the rack depth.

7. Insert a guide pin into the front and rear brackets of the rail assembly

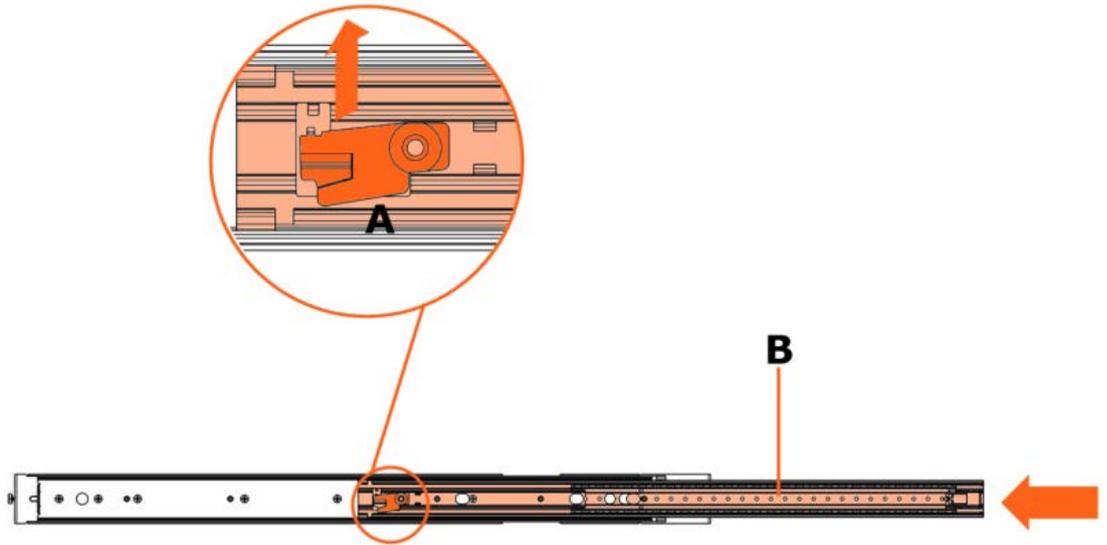
The rail assembly consists of the middle rail and the outer rail with the front bracket and the rear bracket attached.



Mark	Description
A	Middle rail
B	Front bracket
C	Outer rail
D	Rear bracket

8. Push the middle rail back to its original position

1. Lift the middle rail release latch (A) up.
2. Push the middle rail (B) in until it clicks back into place.



2.5.2. Installing the server into the rack cabinet



CAUTION C045

Two people are required to perform this operation.

Required tools

T25 Torx screwdriver

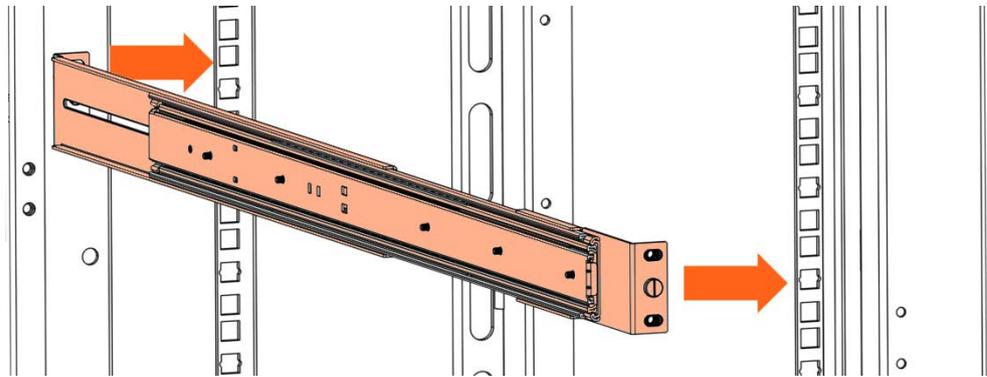
See [Appendix A. Screws, washers and nuts](#)

Procedure

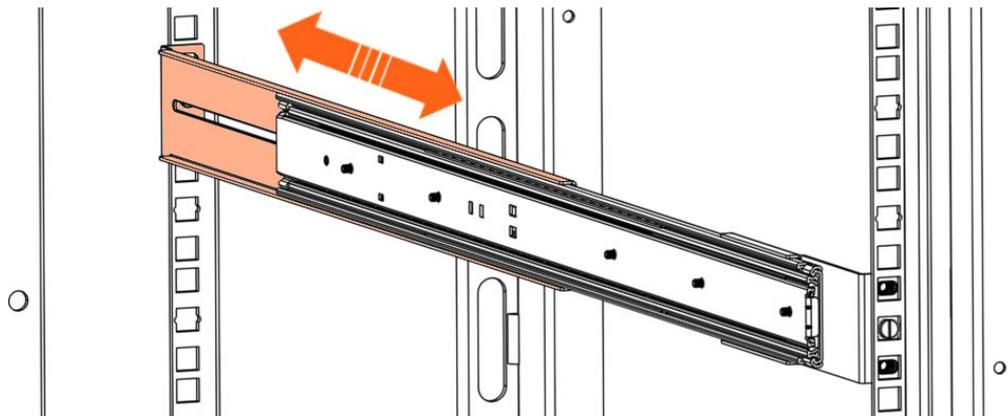
1. Install the rail assemblies into the rack cabinet

For each rail assemblies, perform the following operations:

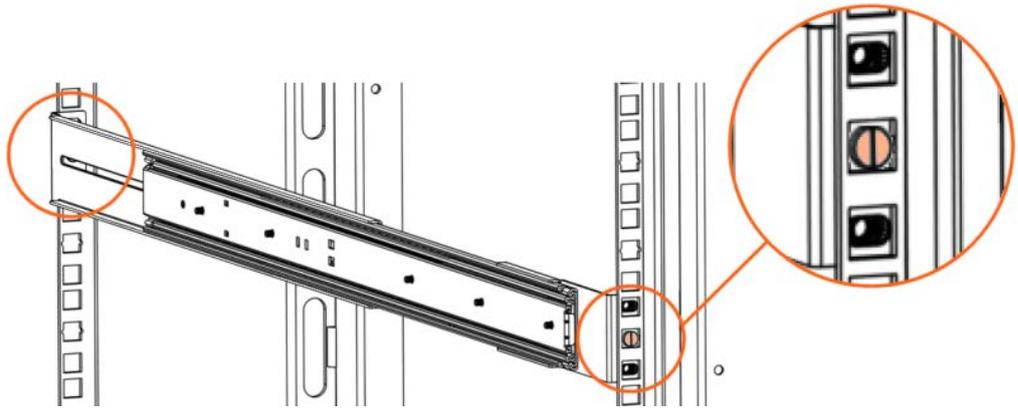
1. Move the rail assembly into place.



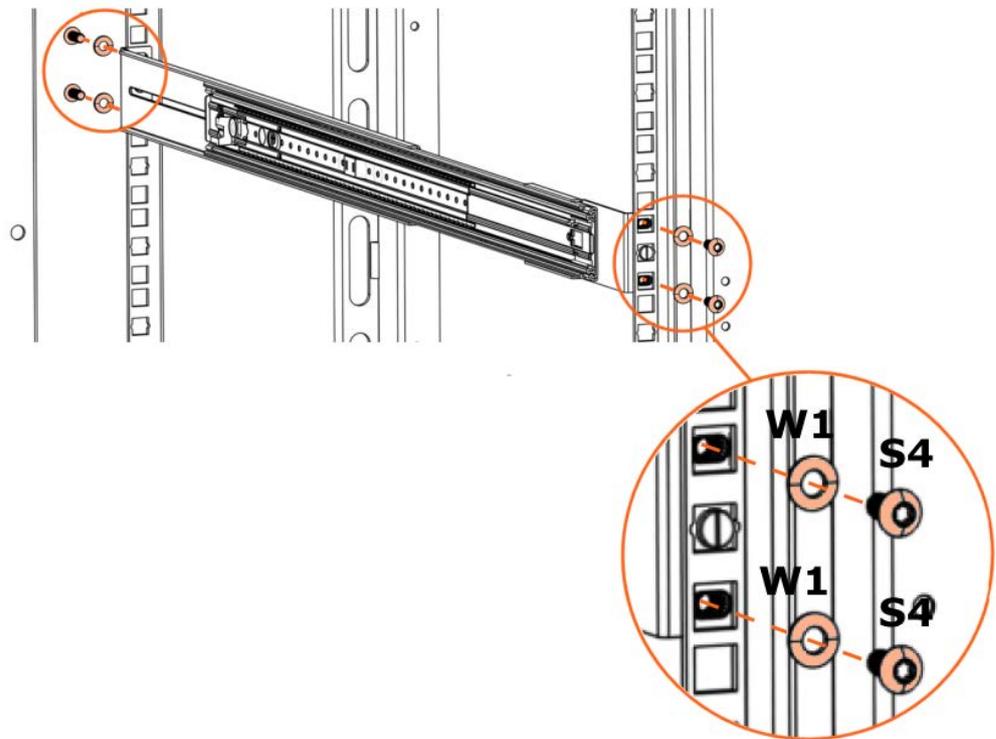
2. If necessary, adjust the length of the rail assembly by sliding the rear bracket.



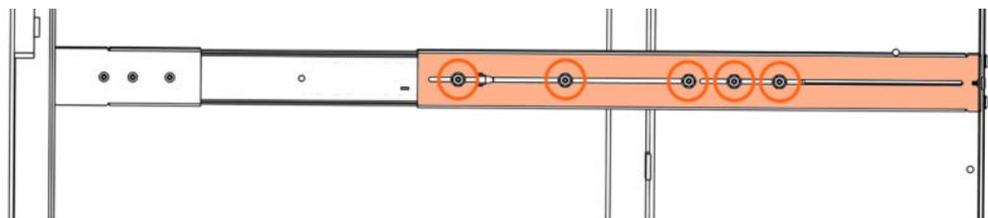
3. Position the rail assembly using the guide pins at each end.



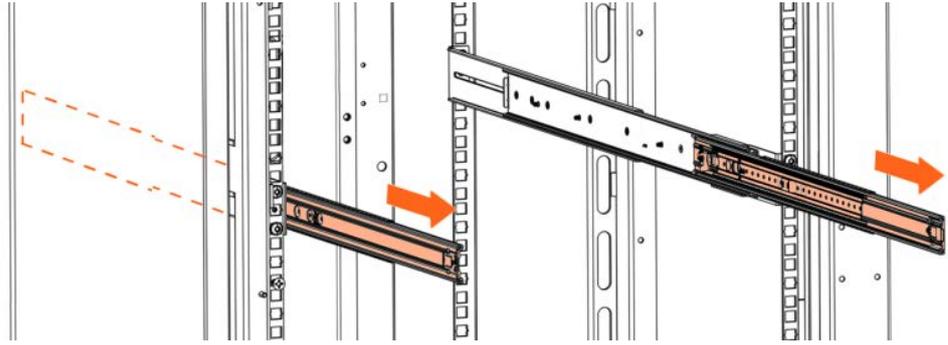
4. Secure the rail assembly into place.



5. Tighten the rear bracket nuts.

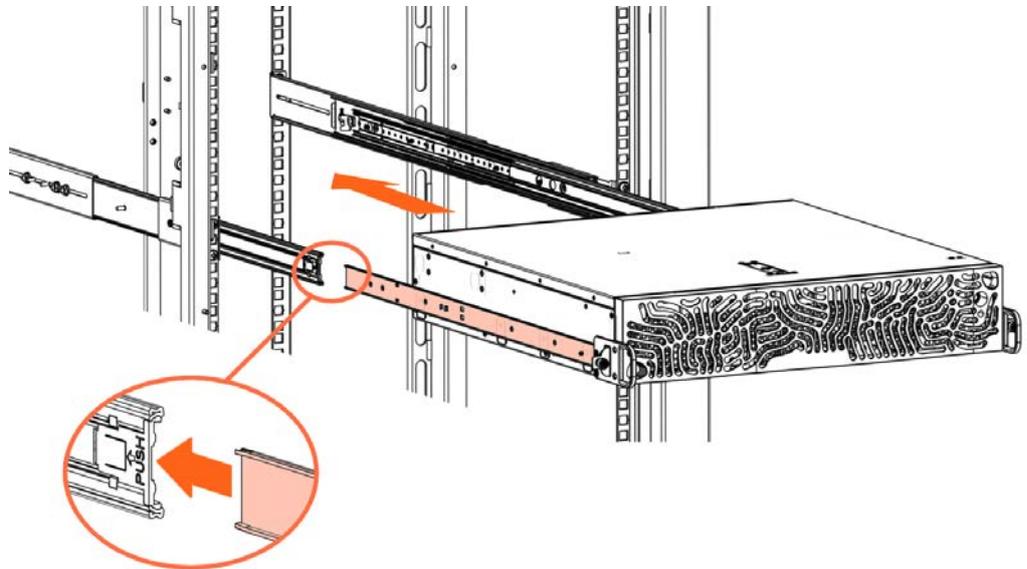


6. Pull the middle rails out.

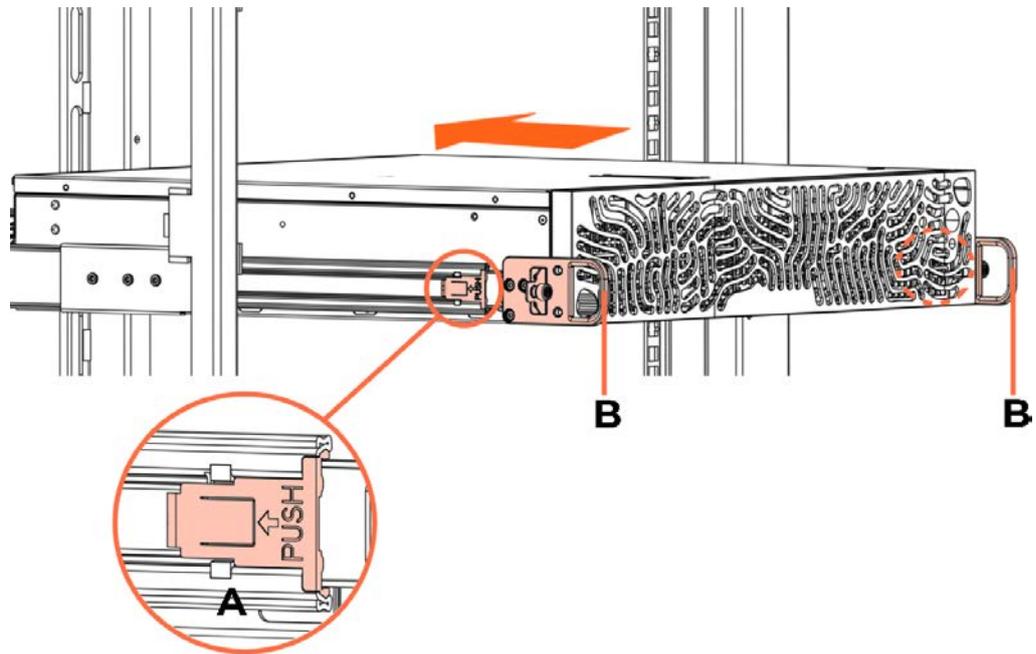


2. Install the server into the rack cabinet

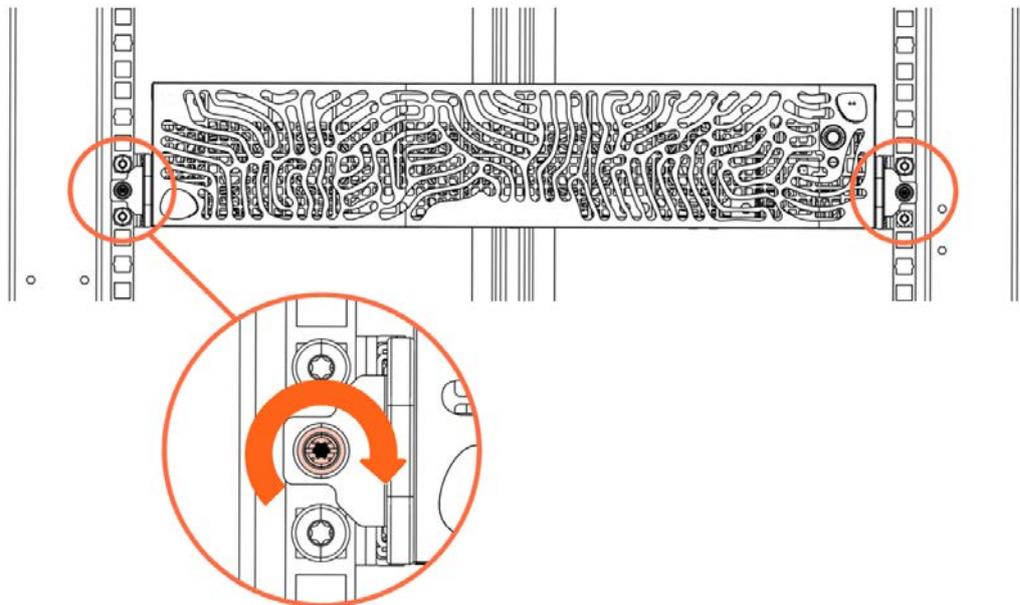
1. Using the inner rails attached to the server, slide the server into the middle rails.



2. When the rail assemblies click, push the release latch (A) on each side to allow the server to be pushed completely into the rack.



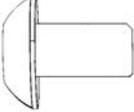
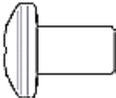
3. Tighten the captive screws to secure the server into place.



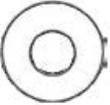
Appendix A. Screws, washers and nuts

This appendix lists all the screws, washers and nuts included in the delivery.

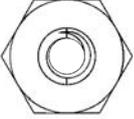
Screws

Mark	Head	Body	Diameter	Length	Description
S1			3 mm	4 mm	M3x4 Flat-headed screw
S2			3.5 mm	12 mm	Flat-head philip #6-32 screw
S3			3 mm	6.5 mm	M3x6.5 standard screw
S4			5 mm	8.5 mm	M5 button head torx screw
S5			3 mm	6 mm	M3x6 Flat head torx screw
S6			6 mm	10 mm	Pan head screw
S7			4 mm	8 mm	CBLZ head screw M4x8 Black
S8			4 mm	6. mm	CX low head screw M4x6

Washers

Mark	Head	Body	Diameter	Description
W1			5 mm	M5 Spring Lock Washer OD11
W2			6 mm	M6 Toothed Lock Washer
W3			4 mm	M4 conical spring lock washer

Nuts

Mark	Head	Body	Diameter	Description
N1			3.5 mm	Hex serrated flange locknut #6-32
N2			6 mm	Hex nut #6

