Dell VxRail P570, P570F, V570, V570F, and S570

Owner's Manual

DELLTechnologies

Notes, cautions, and warnings

(i) **NOTE:** A NOTE indicates important information that helps you make better use of your product.

△ **CAUTION: A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.**

⚠ **WARNING: A WARNING indicates a potential for property damage, personal injury, or death.**

Contents

Revision history

Table 1. Revision history

Date	Revision	Description of change
June 2024	12	Minor updates.
January 2024	11	Minor updates.
July 2023	10	Updated the slot priority matrices.
July 2023	9	Minor updates.
March 2022	8	Minor updates and corrections.
December 2021	7	Updated the memory population guidelines.
October 2021	6	Updated for VxRail self-deployment information.
April 2021	5	Minor updates and corrections.
April 2020	4	Updated the FRU/CRU information.
August 2018	3	Minor updates and corrections.
June 2018	2	Updated to add information regarding the supported hardware components.
November 2017	1	Initial release.

1

Introduction

The VxRail P570, P570F, V570, V570F, and S570 Owner's Manual provides an overview about the system, technical specifications, diagnostic tools, and guidelines describing high-level operations.

The target audience for this document includes customers, field personnel, and partners who want to operate and maintain a VxRail P570, P570F, V570, V570F, or S570. This document is designed for people familiar with:

- Dell Technologies systems and software
- VMware virtualization products
- Data center appliances and infrastructure

For the most up-to-date list of VxRail documentation, see the VxRail Documentation Quick Reference List.

Dell Technologies Support

Create a Support account to access support resources for your VxRail. Link your Support account with VxRail Manager to access resources without a separate login.

If you already have an account, register your VxRail to access the available resources. You can link your Online Support account with VxRail Manager and access support resources without having to log in separately.

Register for a Dell Technologies Support account

Create a Dell Technologies Support account to obtain VxRail documentation, license files, and software updates.

If you already have an account, link your Support account with VxRail Manager and access support resources without having to log in separately.

After you register, you can:

- Access or download the SolVe Desktop application for customized procedures to replace hardware components and upgrade software components.
- Link your Support account with VxRail Manager to access resources.

For information about how to access a Dell Technologies Online Support account or to upgrade an existing account, see KB 21768.

1. Go to Dell Technologies Support.
2. Click **Create an Account** and follow the steps to create an account.
   It may take approximately 48 hours to receive a confirmation of account creation.

Support resources

Support resources are available for your VxRail.

Use the following resources to obtain support for your VxRail:
- In the VMware vSphere Web Client, select **VxRail**. Use the **Support** functions on the **VxRail Dashboard**.
- Go to Dell Technologies Support.

Use SolVe Online for VxRail procedures

To avoid potential data loss, always use *SolVe Online for VxRail* to generate procedures before you replace any hardware components or upgrade software.

⚠ **CAUTION: If you do not use *SolVe Online for VxRail* to generate procedures to replace hardware components or perform software upgrades, data loss may occur for VxRail.**

You must have a Dell Technologies Support account to use SolVe Online for VxRail.

Locate your VxRail serial number

To get support for your VxRail, use the VxRail serial number, also called the Product Serial Number Tag (PSNT). The PSNT is a 14-digit number that is used to identify an individual VxRail on Dell Technologies support.

(i) **NOTE:** While contacting the Dell Technologies Customer Support, use the PSNT for the identification of your VxRail. If Customer Support asks for the 7-digit service tag number, provide it.

The two identification tags on your VxRail are located as follows:

- The VxRail serial number tag: You can find the PSNT printed on the information tag on your VxRail, or you can locate the PSNT using VxRail Manager.
- The service tag: You can find the service tag that is printed on your VxRail.

Look up your VxRail serial number in VxRail Manager

Look up your VxRail serial number in VxRail Manager.

1. From the VMware vSphere Web Client, click **Hosts and Clusters** in the left navigation bar.
2. Select your VxRail cluster.
3. Select the **Monitor** tab.
4. From the inner left navigation bar, select **VxRail** > **Physical View**.

Locate the serial number and service tag number on your VxRail

You can identify your VxRail using the unique serial number, service tag number, or express service code located on the information tag of your VxRail. The information tag is located at the front of your VxRail. See System overview for the location.

The information tag contains the following:

- Product serial number tag (PSNT), which provides the 14-digit VxRail serial number
- Service tag

To view the PSNT and other labels, pull out the information tag in the front of the VxRail. Alternatively, information may be on a sticker on the chassis of VxRail.

The mini Enterprise Service Tag (EST) is found on the back of VxRail. This information is used by Dell to route support calls to the appropriate personnel.

VxRail overview

VxRail supports the following configurations:

Table 2. Supported configurations

Supported configurations	VxRail V570, V570F	VxRail P570, P570F	VxRail S570
Processor	Two Intel Xeon Processor Scalable Family processors	Up to two Intel Xeon Processor Scalable Family processors	Up to two Intel Xeon Processor Scalable Family processors
DIMM	24 DIMM slots supporting up to 1536 GB of memory	24 DIMM slots supporting up to 1536 GB of memory	24 DIMM slots supporting up to 1536 GB of memory
Power supply units	Two AC or DC redundant power supply units	Two AC or DC redundant power supply units	Two AC or DC redundant power supply units
Drives	24 hard drives or solid state drives (SSDs)	24 hard drives or solid state drives (SSDs)	12 front accessible hard drives or solid state drives (SSDs), and two rear accessible SSDs

The VxRail supports only internal, hot-swappable hard drives.

In this document, HDD generically refers to both HDD and SSD.

All instances of SAS, SATA drives, and SSDs are referred to as drives in this document, unless specified otherwise.

Supported configurations

The VxRail P570, P570F, V570, V570F support the following configuration:
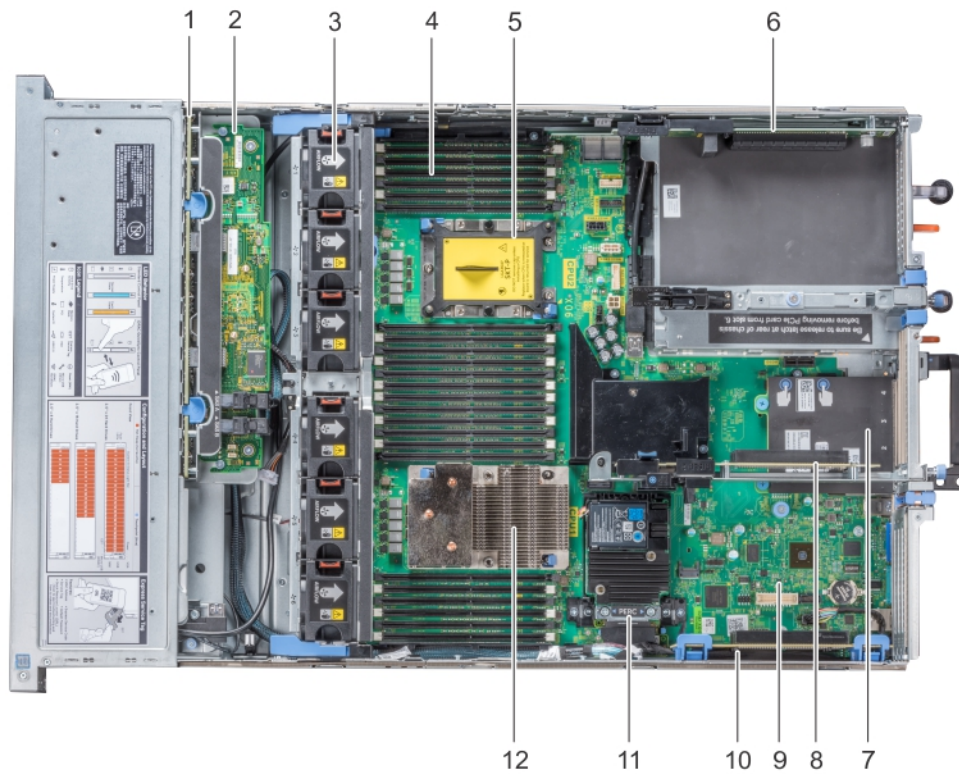
Figure 1. VxRail P Series and V Series.

1. drive backplane
2. backplane expander card
3. cooling fan in the cooling fan assembly (6)
4. memory module
5. CPU2 processor and heat sink module socket (with dust cover)
6. expansion card riser 3
7. network daughter card
8. expansion card riser 2
9. system board
10. expansion card riser 1
11. integrated storage controller card
12. CPU1 processor and heat sink module

The VxRail S570 supports the following configuration:
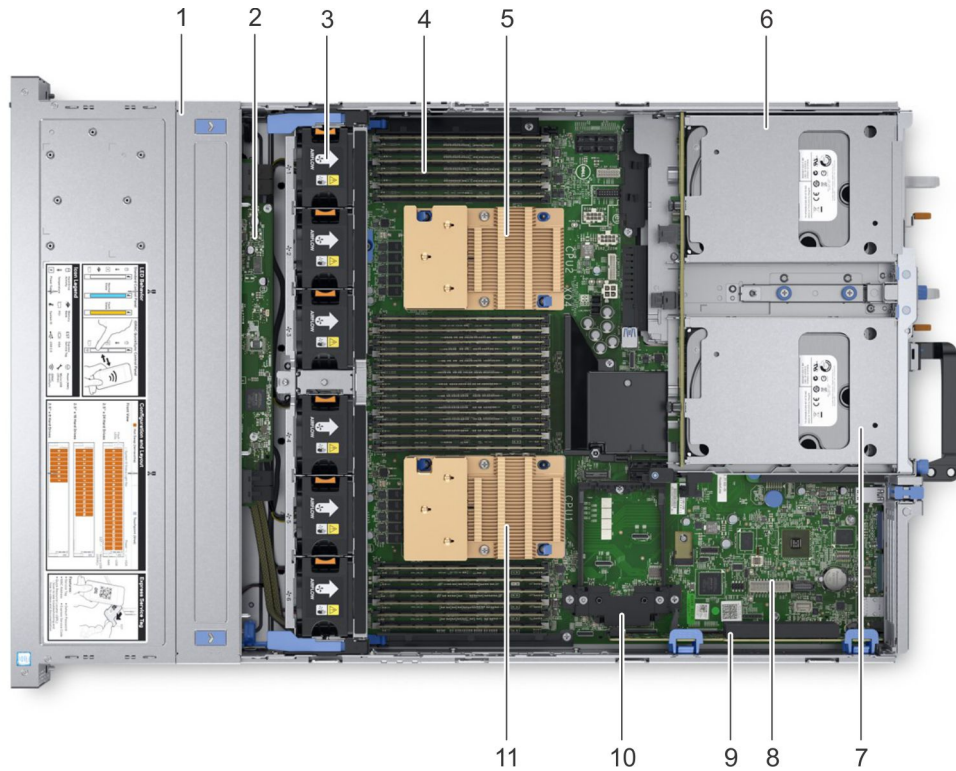
Figure 2. VxRail S Series

1. drive backplane
3. cooling fan in the cooling fan assembly (6)
5. CPU2 processor and heat sink module socket
7. rear drive cage 2
9. expansion card riser 1
11. CPU1 processor and heat sink module

2. backplane expander card
4. memory module
6. rear drive cage 1
8. system board
10. integrated storage controller card

Front view of the VxRail

The front view displays the features available on the front of the VxRail. You can access components such as the power button, left control panel, and right control panel from the front of the system. The diagnostic LEDs are prominently located on the front panel. The hot-swappable hard drives are accessible from the front panel.

The following figure shows the front view of VxRail P570, P570F, V570, and V570F with 24 x 2.5-inch drive:

Figure 3. Front view of 24 x 2.5 inch drive system

The following figure shows the front view of VxRail S570 with 12 x 3.5-inch drive:
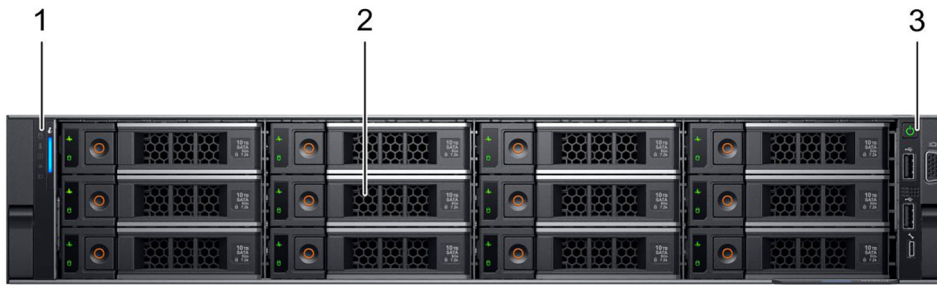
Figure 4. Front view of 12 x 3.5 inch drive system

The following table describes the features available on the front view:

Table 3. Features available on the front view

Item	Panels and slots	Icon	Description
1	Left control panel	N/A	Contains VxRail health and VxRail ID, status LED.
2	Hard drives	N/A	Enable you to install drives that are supported on your VxRail. For more information about drives, see Technical specifications.
3	Right control panel	N/A	Contains the power button, VGA port, iDRAC Direct micro-USB port and two USB 2.0 ports.
4	Information tag	N/A	The Information Tag is a slide-out label panel that contains VxRail information such as Service Tag, Product Serial Number Tag (PSNT), NIC, MAC address, and so on.

Left control panel view

The following figure and table shows the features available on the left control panel:
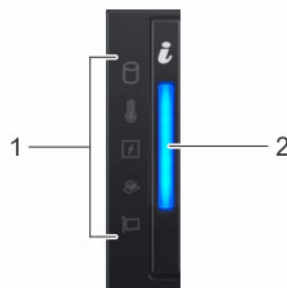
Figure 5. Left control panel

Table 4. Features available on the left control panel

Item	Indicator	Icon	Description
1	Status LED indicators	N/A	Indicate the status of the VxRail. For more information, see Status LED indicators.
2	VxRail health and VxRail ID indicator	*i*	Indicate the VxRail health. For more information, see VxRail health and VxRail ID indicator codes.

Status LED indicators

This section describes the condition of the status LED indicators and provides the related corrective actions.

(i) **NOTE:** The status LED indicators are always off and only turns on to a solid amber if any error occurs.

Table 5. Status LED indicators

Icon	Description	Condition	Corrective action
	Hard drive indicator	The indicator turns solid amber if there is a hard drive error.	Check the System Event Log to determine if the drive has an error. If the problem persists, see Support.
	Temperature indicator	The indicator turns solid amber if the VxRail experiences a thermal error (for example, the ambient temperature is out of range or there is a fan failure).	Ensure that none of the following conditions exist: ● A cooling fan has been removed or has failed. ● VxRail cover, air shroud, memory module blank, or back filler bracket is removed. ● Ambient temperature is too high. ● External airflow is obstructed. If the problem persists, see Support.
	Electrical indicator	The indicator turns solid amber if the VxRail experiences an electrical error (for example, voltage out of range, or a failed power supply unit (PSU) or voltage regulator).	Check the System Event Log or VxRail messages for the specific issue. If it is due to a problem with the PSU, check the LED on the PSU. Reseat the PSU. If the problem persists, see Support.
	Memory indicator	The indicator turns solid amber if a memory error occurs.	See the Support section.
	PCIe indicator	The indicator turns solid amber if a PCIe card experiences an error.	See the Support section. (i) **NOTE:** For more information about the supported PCIe cards, see Expansion card installation guidelines.

VxRail health and VxRail ID indicator codes

The VxRail health and VxRail ID indicator is located on the left control panel of your VxRail.

Figure 6. Health and ID indicator

The following table describes the health and ID indicator codes:

Table 6. Health and ID indicator codes

VxRail health and VxRail ID indicator code	Condition
Solid blue	Indicates that the VxRail is switched on, it is healthy, and VxRail ID mode is not active. Press the VxRail health and VxRail ID button to switch to VxRail ID mode.
Blinking blue	Indicates that the VxRail ID mode is active. Press the VxRail health and VxRail ID button to switch to VxRail health mode.
Solid amber	Indicates that the VxRail is in fail-safe mode. If the problem persists, see Support.
Blinking amber	Indicates that the VxRail is experiencing a fault. If the problem persists, see Support.

Right control panel view

The following figure and table describes the features available on the right control panel:
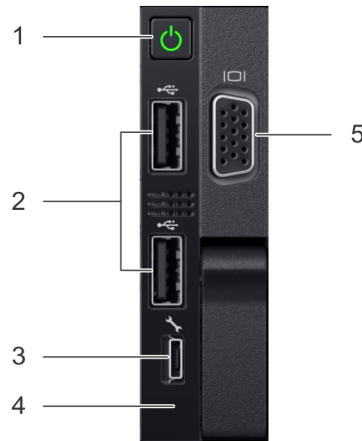
Figure 7. Right control panel

Table 7. Features available on the right control panel

Item	Indicator, button, or connector	Icon	Description
1	Power button	⏻	Indicates if the VxRail is turned on or off. Press the power button to manually turn on or off the VxRail. Press the power button to gracefully shut down an ACPI-compliant operating system.
2	USB port (2)	⚡USB	The USB ports are 4-pin, 2.0-compliant. These ports enable you to connect USB devices to the VxRail.
3	iDRAC Direct port	⚲	The iDRAC Direct port is micro USB 2.0-compliant. This port enables you to access the iDRAC Direct features. For more information, see the iDRAC User's Guide at *Dell.com/idracmanuals*.
4	iDRAC Direct LED	N/A	The iDRAC Direct LED indicator lights up to indicate that the iDRAC Direct port is connected. For more information, see iDRAC Direct LED indicator codes.
5	VGA port	|O|	Enables you to connect a display device to the VxRail. For more information, see Technical specifications.

iDRAC Direct LED indicator codes

The iDRAC Direct LED indicator lights up to indicate that the port is connected and is being used as a part of the iDRAC subsystem.

iDRAC Direct LED indicator is located below the iDRAC Direct port on the right control panel. You can configure iDRAC Direct by using a USB to micro USB (type AB) cable, which you can connect to your laptop or tablet.

The following table describes iDRAC Direct LED indicator codes and the related conditions:

Table 8. iDRAC Direct LED indicator codes

iDRAC Direct LED indicator code	Condition
Solid green for two seconds	Indicates that the laptop or tablet is connected.
Flashing green (on for two seconds and off for two seconds)	Indicates that the laptop or tablet connected is recognized.
Turns off	Indicates that the laptop or tablet is unplugged.

Rear view of the VxRail

The rear view displays the features available on the back of the VxRail.

The following figure and table describes the features available on the rear view of VxRail S570 with 2 x 3.5-inch drive:
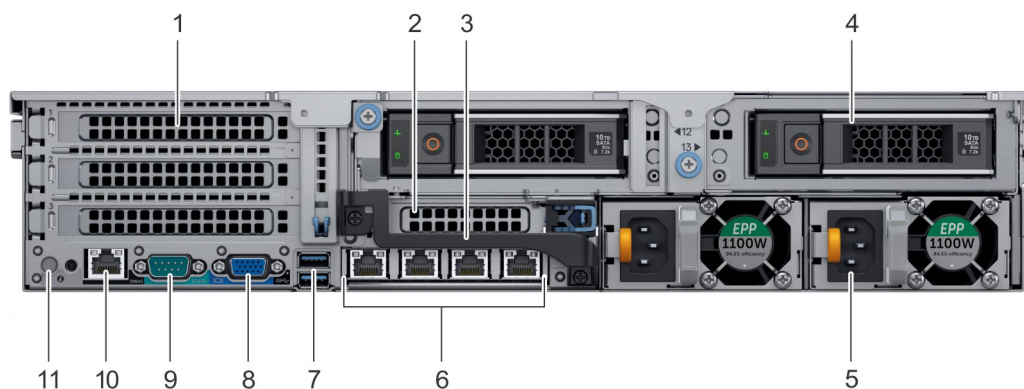
Figure 8. Back view of VxRail S570 2 x 3.5 inch drive

Table 9. Features available on the rear view of VxRail S570

Item	Panels, ports, and slots	Icon	Description
1	Full-height PCIe expansion card slot (3)	N/A	The PCIe expansion card slot (riser 1) connects up to three full-height PCIe expansion cards to the VxRail. For more information, see Expansion card installation guidelines.
2	Half-height PCIe expansion card slot	N/A	The PCIe expansion card slot (riser 2) connects one half-height PCIe expansion card to the VxRail. For more information, see Expansion card installation guidelines.
3	Rear handle	N/A	The rear handle can be removed to enable any external cabling of PCIe cards that are installed in the PCIe expansion card slot 6.
4	Drives	N/A	Enable you to install drives that are supported on your VxRail. For more information about drives, see Technical specifications.
5	Power supply unit (2)	N/A	For more information, see Technical specifications.
6	NIC ports	⊞	The NIC ports that are integrated on the NDC provide network connectivity. For more information about the supported configurations, see Technical specifications.
7	USB port (2)	SS⟠	The USB ports are 9-pin and 3.0-compliant. These ports enable you to connect USB devices to the VxRail.
8	VGA port	▭	Enables you to connect a display device to the VxRail. For more information, see Technical specifications.
9	Serial port	IOIOI	Enables you to connect a serial device to the VxRail. For more information, see Technical specifications.
10	iDRAC9 dedicated port	iDRAC	Enables remote access to iDRAC. For more information, see the iDRAC User's Guide.
11	VxRail identification button	ⓘ	The VxRail Identification (ID) button is available on the front and back of the VxRail. Press the button to identify a VxRail in a rack by turning on VxRail ID. You can also use the VxRail ID button to reset iDRAC and to access the BIOS using the step-through mode.

Power supply unit indicator codes

AC power supply units (PSUs) have an illuminated translucent handle that serves as an indicator and DC PSUs have an LED that serves as an indicator. The indicator shows whether power is present or a power fault has occurred.

The following figure shows the AC PSU status indicator:

Figure 9. AC PSU status indicator

1. AC PSU status indicator/handle

The following table describes the AC PSU status indicator codes and the related conditions of the PSU:

Table 10. AC PSU status indicator codes and the related conditions

Power indicator codes	Condition
Green	A valid power source is connected to the PSU, and the PSU is operational.
Blinking amber	Indicates a problem with the PSU.
Not illuminated	Power is not connected to the PSU.
Blinking green	When the firmware of the PSU is being updated, the PSU handle blinks green. ⚠ CAUTION: **Do not disconnect the power cable or unplug the PSU when updating firmware. If the firmware update is interrupted, the PSUs do not function.**
Blinking green and turns off	When hot-plugging a PSU, it blinks green five times at a rate of 4 Hz and turns off. This indicates a PSU mismatch due to efficiency, feature set, health status, or supported voltage. If two PSUs are installed, verify that: ● Both PSUs have the same type of label. For example, Extended Power Performance (EPP) label. ● The PSUs are of the same type and have the same maximum output power. Do not mix PSUs from previous generations of servers, even if the PSUs have the same power rating. This results in a PSU mismatch condition or failure to turn the VxRail on. ⚠ CAUTION: **Mixed PSUs may cause a PSU mismatch condition or failure to power on the system.** When correcting a PSU mismatch, replace the PSU with the blinking indicator. Do not swap the PSU to make a matched pair. ⚠ CAUTION: **If the PSU is swapped, an erroneous condition may occur and cause an unexpected system shutdown.** To change from a high output configuration to a low output configuration or conversely, you must power off the system. AC PSUs support both 240 V and 120 V input voltages except for Titanium PSUs, which support only 240 V. ⚠ CAUTION: **When two identical PSUs receive different input voltages, they can output different wattages and trigger a mismatch.** ⚠ CAUTION: **Do not combine AC and DC PSUs. It is not supported and triggers a mismatch.**

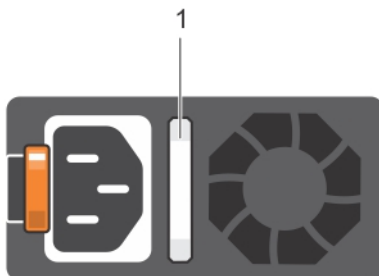The following figure shows the DC PSU status indicator:
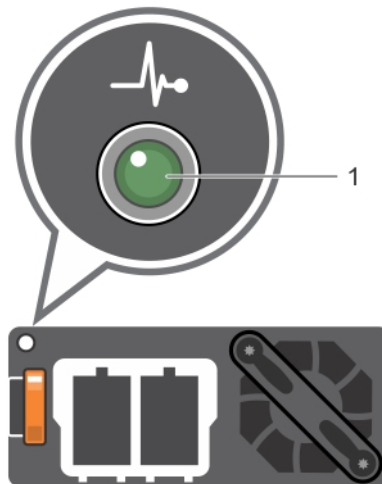
Figure 10. DC PSU status indicator

1. DC PSU status indicator

The following table describes the DC PSU status indicator codes and the related conditions of the PSU:

Table 11. DC PSU status indicator codes and the related conditions

Power indicator codes	Condition
Green	A valid power source is connected to the PSU, and the PSU is operational.
Blinking amber	Indicates a problem with the PSU.
Not illuminated	Power is not connected to the PSU.
Blinking green	When hot-plugging a PSU, it blinks green five times at a rate of 4 Hz and turns off. This indicates a PSU mismatch due to efficiency, feature set, health status, or supported voltage.
	If two PSUs are installed, verify that:
	● Both PSUs have the same type of label. For example, Extended Power Performance (EPP) label.
	● The PSUs are of the same type and have the same maximum output power.
	Do not mix PSUs from previous generations of servers, even if the PSUs have the same power rating. This results in a PSU mismatch condition or failure to turn the VxRail on.
	⚠ **CAUTION: Mixed PSUs may cause a PSU mismatch condition or failure to power on the system.**
	When correcting a PSU mismatch, replace the PSU with the blinking indicator. Do not swap the PSU to make a matched pair.
	⚠ **CAUTION: If the PSU is swapped, an erroneous condition may occur and cause an unexpected system shutdown.**
	To change from a high output configuration to a low output configuration or conversely, you must power off the system.
	⚠ **CAUTION: Do not combine AC and DC PSUs. It is not supported and triggers a mismatch.**

NIC indicator codes

Each NIC on the back panel has indicators that provide information about the activity and link status. The activity LED indicator indicates if data is flowing through the NIC, and the link LED indicator indicates the speed of the connected network.

The following figure shows the NIC indicator lights:
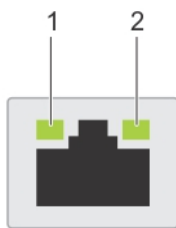
Figure 11. NIC indicators

1. link LED indicator
2. activity LED indicator

The following table describes different NIC indicator codes and the condition of the connectivity:

Table 12. NIC indicator codes and the condition

Status	Condition
Link and activity indicators are off	The NIC is not connected to the network.
Link indicator is green, and the activity indicator is blinking green	The NIC is connected to a valid network at its maximum port speed, and data is being sent or received.
Link indicator is amber, and the activity indicator is blinking green	The NIC is connected to a valid network at less than its maximum port speed, and data is being sent or received.
Link indicator is green, and the activity indicator is off	The NIC is connected to a valid network at its maximum port speed, and data is not being sent or received.
Link indicator is amber, and the activity indicator is off	The NIC is connected to a valid network at less than its maximum port speed, and data is not being sent or received.
Link indicator is blinking green, and activity is off	NIC identify is enabled through the NIC configuration utility.

Back panel features

The System Identification (ID) button is available on the front and back of the systems to identify a system in a rack. You can also use the system ID button to reset iDRAC and access the BIOS using the step-through mode.

The following table provides an overview of back panel features:

Feature	Description
System Identification (ID) button	When pressed, the system ID LED in the back panel blinks until either the front or rear button is pressed again. Press the button to switch between on or off mode. If the server stops responding during POST, press and hold **System ID** for five seconds to enter the BIOS progress mode. To reset the iDRAC (if not disabled on the iDRAC setup page by pressing F2 during system boot), press and hold **System ID** for more than 15 seconds.
System identification port	The System identification port connects the optional system status indicator assembly to the system through the optional cable management arm.
iDRAC9 dedicated port	Enables remote access iDRAC. For more information, see the *iDRAC User's Guide*.
Serial port	Enables connectivity to a serial device to the system. For more information, see *Technical specifications*.
Rear handle	Remove the rear handle to enable any external cabling of PCIe cards that are installed in the PCIe expansion card slot 6.
Video port	Enables connectivity to a display device to the system. For more information, see *Technical specifications*.

Feature	Description
USB 3.0 ports	The USB ports are 9-pin and 3.0-compliant. These ports enable you to connect USB devices to the system.
Full-height PCIe expansion card slot	Use the card slots to connect up to four full-height PCIe expansion cards.
PCIe expansion card slot (riser 1)	The PCIe expansion card slot (riser 1) connects a low profile PCIe expansion card to the system. For more information, see *Expansion card installation guidelines*.
PCIe expansion card slot (riser 2)	The PCIe expansion card slot (riser 2) connects a full height three-fourth length PCIe expansion card to the system. For more information, see the Expansion card installation guidelines section.
NIC ports	The NIC ports that are integrated on the NDC provide network connectivity. For more information, see *Technical specifications*.
Power supply unit (PSU1)	PSU1 is the primary system PSU. For more information, see *Technical specifications*.
Power supply unit (PSU2)	PSU2 is the secondary system PSU. For more information, see *Technical specifications*.

Hard drive indicator codes

Each hard drive carrier has an activity indicator and a status indicator. The indicators provide information about the status of the hard drive. The activity LED indicates whether the hard drive is in use or not. The status LED indicates the power condition of the hard drive.

The following figure shows the hard drive indicators on the hard drive and the hard drive tray backplane:
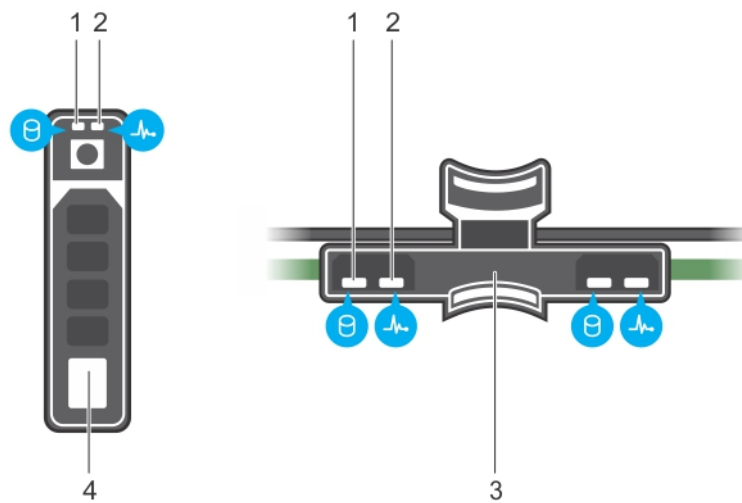
Figure 12. Hard drive indicators

1. Hard drive activity indicator
3. Hard drive backplane on hard drive tray

2. Hard drive status indicator
4. Hard drive

The following table describes the hard drive indicator codes:

Table 13. Hard drive indicator codes

Hard drive status indicator code	Condition
Flashes green twice per second	Identifying the drive or preparing for removal.
Off	Hard drive ready for removal.

Table 13. Hard drive indicator codes (continued)

Hard drive status indicator code	Condition
	ⓘ **NOTE:** The hard drive status indicator remains off until all drives are initialized after the VxRail is turned on. Hard drives are not ready for removal during this time.
Flashes green, amber, and then turns off	Predicted drive failure.
Flashes amber four times per second	The hard drive failed.
Solid green	The hard drive is online.

Technical specifications

The technical and environmental specifications of your VxRail are outlined in this section.

Chassis dimensions

The following figure and table describes the chassis dimensions of the VxRail P570, P570F, V570, V570F, and S570:
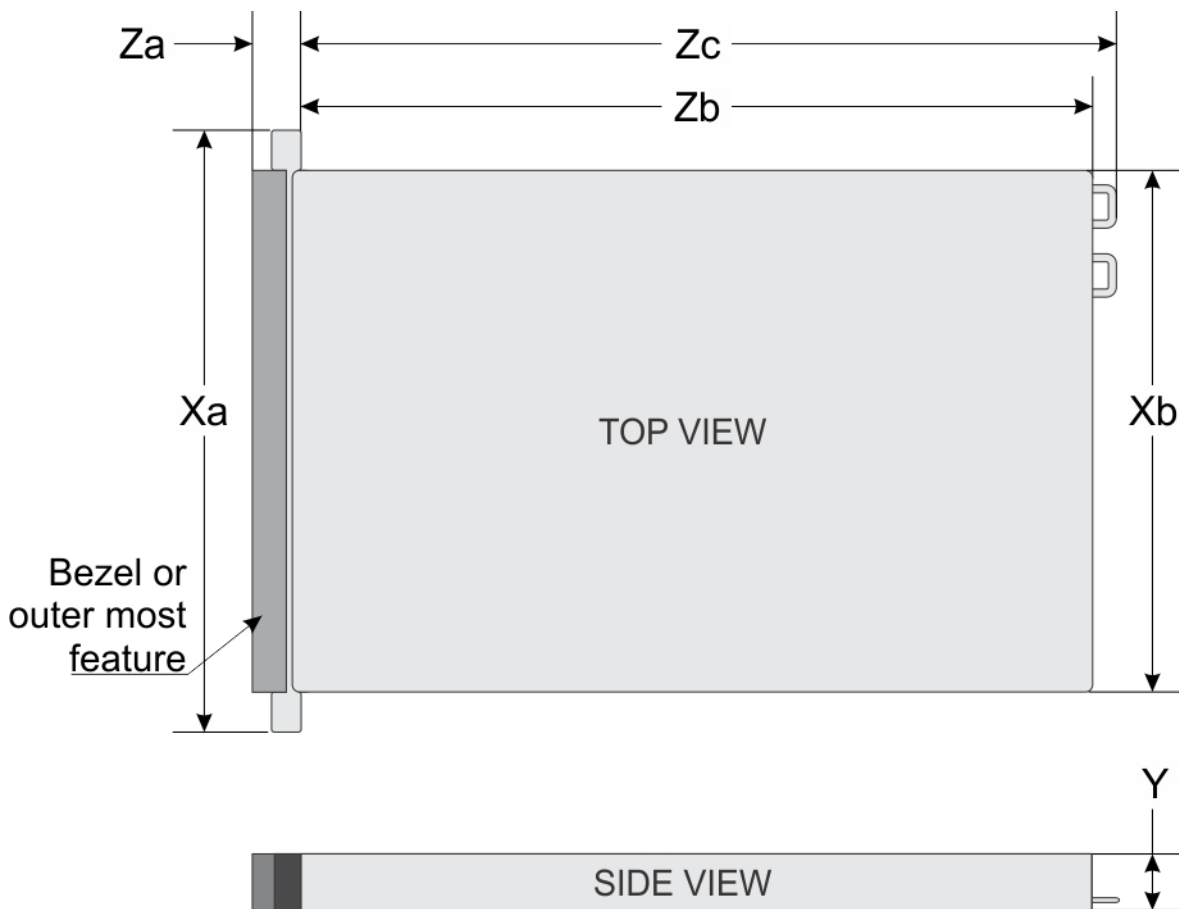
Figure 13. Chassis dimensions

Table 14. Chassis dimensions

VxRail	Xa	Xb	Y	Za (with bezel)	Za (without bezel)	Zb	Zc
P570, P570F, V570, V570F, and S570	482.0 mm (18.98 inches)	434.0 mm (17.09 inches)	86.8 mm (3.42 inches)	35.84 mm (1.41 inches)	22.0 mm (0.87 inches)	678.8 mm (26.72 inches)	715.5 mm (28.17 inches)

Chassis weight

The following table lists the maximum weight of the VxRail:

Table 15. Chassis weight

VxRail configuration	Maximum weight (with all hard drives/SSDs)
VxRail P570, P570F, V570, and V570F with 2.5-inch drive	28.1 kg (61.95 lb)
VxRail S570 with 3.5-inch drive	33.1 kg (72.91 lb)

Processor specifications

The following table shows the maximum supported processors:

Table 16. Supported processors

VxRail model	Maximum number of supported processors
VxRail V570 and V570F	Two Intel Xeon Processor Scalable Family processors
VxRail P570, P570F, and S570	Up to two Intel Xeon Processor Scalable Family processors

PSU specifications

The VxRail P570, P570F, V570, V570F, and S570 supports two AC or DC redundant power supply units (PSUs).

The following table describes the PSU specifications of the VxRail P570, P570F, V570, V570F, and S570:

Table 17. PSU specifications

Supported VxRail configurations	PSU	Class	Heat dissipation (maximum)	Frequency	Voltage	Current
VxRail P570, P570F, V570, V570F, and S570	1100 W AC	Platinum	4100 BTU/hr	50/60 Hz	100–240 V AC, autoranging	12 A–6.5 A
	1100 W DC	N/A	4416 BTU/hr	N/A	–(48–60) V DC, autoranging	32 A
VxRail P570, P570F, V570, and V570F	1600 W AC	Platinum	6000 BTU/hr	50/60 Hz	100–240 V AC, autoranging	10 A
VxRail V570 and V570F	2000 W AC	Platinum	7500 BTU/hr	50/60 Hz	100–240 V AC, autoranging	11.5 A

Heat dissipation is calculated by using the PSU wattage rating.

This VxRail is also designed to connect to the IT power systems with a phase to phase voltage not exceeding 240 V.

(i) **NOTE:** If the VxRail with 2000 W AC PSU operates at low line 100–120 V AC, then the power rating per PSU is derated to 1000 W.

(i) **NOTE:** If the VxRail with 1600 W AC PSU operates at low line 100–120 V AC, then the power rating per PSU is derated to 800 W.

(i) **NOTE:** If the VxRail with 1100 W AC PSU operates at low line 100–120 V AC, then the power rating per PSU is derated to 1050 W.

Battery specifications

The VxRail P570, P570F, V570, V570F, and S570 supports CR 2032 3.0-V lithium coin cell battery.

Expansion bus specifications

The VxRail P570, P570F, V570, V570F, and S570 support PCI express (PCIe) generation 3 expansion cards that can be installed on the system board by using expansion card risers. These VxRail support three types of expansion card risers.

The following table provides detailed information about the expansion card riser specifications:

Table 18. Expansion bus specifications

Supported VxRail configurations	Riser configurations and supported risers	Slot description	PCIe slots on riser 1 (Height and length)	Processor connection	PCIe slots on riser 2 (Height and length)	Processor connection	PCIe slots on riser 3 (Height and length)	Processor connection
VxRail P570, P570F, and S570	Riser configuration 1 with or without rear storage (1B+2B)	Four x8 slots and rear storage	Slot 1: x8 full-height, full length Slot 2: x8 full-height, full length Slot 3: x8 full-height, half-length	Processor 1	Slot 4: x8 low profile, half length	Processor 1	N/A	N/A
VxRail P570, P570F, V570, and V570F	Riser configuration 4 (1A+2A+3A)	Three x8 and four x16 slots	Slot 1: x16 full-height, full length	Processor 1	Slot 4: x16 full-height, full length	Processor 2	Slot 7: x8 full-height, full length	Processor 2
			N/A	N/A	Slot 5: x8 full-height, full length		Slot 8: x16 full-height, full length	
			Slot 3: x16 full-height, half-length	Processor 1	Slot 6: x8 low profile, half length	Processor 1		
VxRail V570, and V570F	Riser configuration 6 (1D+2A+3A)	Five x8 and three x16 slots	Slot 1: x16 full-height, full length	Processor 1	Slot 4: x16 full-height, full length	Processor 2	Slot 7: x8 full-height, full length	Processor 2
			Slot 2: x8 full-height, full length		Slot 5: x8 full-height, full length		Slot 8: x16 full-height, full length	
			Slot 3: x8 full-height, half-length		Slot 6: x8 low profile, half length	Processor 1		
	Riser configuration 15 (1A+2E+3B)	Three x8 and four x16 slots	Slot 1: x16 full-height, full length	Processor 1	Slot 4: x16 full-height, full length	Processor 2	Slot 7: x8 full-height, full length	Processor 2
			N/A	N/A	Slot 5: x8 full-height, full length		Slot 8: x16 full-height, full length	
			Slot 3: x16 full-height, half-length	Processor 1	Slot 6: x8 low profile, half length	Processor 1		
	Riser configuration 16 (1D+2E+3B)	Five x8 and three x16 slots	Slot 1: x16 full-height, full length	Processor 1	Slot 4: x16 full-height, full length	Processor 2	Slot 7: x8 full-height, full length	Processor 2
			Slot 2: x8 full-height, full length		Slot 5: x8 full-height, full length		Slot 8: x16 full-height, full length	

Table 18. Expansion bus specifications (continued)

Supported VxRail configurations	Riser configurations and supported risers	Slot description	PCIe slots on riser 1 (Height and length)	Processor connection	PCIe slots on riser 2 (Height and length)	Processor connection	PCIe slots on riser 3 (Height and length)	Processor connection
			Slot 3: x8 full-height, half-length		Slot 6: x8 low profile, half length	Processor 1		

Memory specifications

The VxRail P570, P570F, V570, V570F, and S570 support up to 24, 288-pins RDIMMs, and LRDIMMs with speeds of 2666 MT/s, 2400 MT/s, and 2133 MT/s with support for memory optimized operation.

The following table lists the memory specifications for the VxRail P570, P570F, V570, V570F, and S570:

Table 19. Memory specifications

DIMM type	DIMM rank	DIMM capacity	Single processor		Dual processors	
			Minimum RAM	Maximum RAM	Minimum RAM	Maximum RAM
LRDIMM	Quad rank	64 GB	384 GB	768 GB	768 GB	1536 GB
RDIMM	Dual rank	16 GB	96 GB	192 GB	192 GB	384 GB
RDIMM	Dual rank	32 GB	192 GB	384 GB	384 GB	768 GB

Storage controller specifications

The VxRail P570, P570F, V570, V570F, and S570 supports the following internal storage controller cards:

- HBA330
- Boot Optimized Server Storage (BOSS-S1)

Drives

The VxRail P570, P570F, V570, V570F, and S570 supports NVMe, SAS, SATA, Nearline SAS drives, or SSDs.

The following table lists the supported drive options for the VxRail P570, P570F, V570, V570F, and S570:

Table 20. Drive specifications

VxRail configuration	Number of drives	Description
VxRail S570 configuration	14 drives	Up to 12 3.5-inch (Nearline SAS) front accessible drives in slots 0 to 11, and up to two 3.5-inch (SAS) rear accessible drives in slots 12 to 13.
VxRail P570 and P570F configuration	24 drives	Up to 24 2.5-inch (NVMe, SAS, SATA, or Nearline SAS) front accessible drives in slots 0 to 23. ⓘ **NOTE:** VxRail P Series appliance supports NVMe drives in cache tier, slots 20 to 23 only.
VxRail V570 and V570F configuration	24 drives	Up to 24 2.5-inch (SAS, SATA, or Nearline SAS) front accessible drives in slots 0 to 23.

Ports and connectors specifications

USB ports

The VxRail P570, P570F, V570, V570F, and S570 supports the following USB ports:

- Two USB 2.0-compliant ports on the front of the VxRail
- One internal USB 3.0-compliant port
- One micro USB 2.0-compliant port on the front of the VxRail for iDRAC Direct
- Two USB 3.0-compliant ports on the back of the VxRail

NIC ports

The VxRail P570, P570F, V570, V570F, and S570 supports up to four Network Interface Controller (NIC) ports that are integrated on the network daughter card (NDC), and are available in the following configurations:

- Four RJ-45 ports that support 100 M, 1 G, and 10 Gbps
- Four SFP+ ports that support up to 10 Gbps
- ⓘ **NOTE:** You can install additional PCIe NIC cards. For more information on the PCIe NIC cards, see Expansion card installation guidelines.

VGA ports

The Video Graphic Array (VGA) port enables you to connect the VxRail to a VGA display.

The VxRail P570, P570F, V570, V570F, and S570 supports two 15-pin VGA ports on the front and back panels.

Serial connector

The VxRail P570, P570F, V570, V570F, and S570 supports one serial connector on the back panel, which is a 9-pin connector, Data Terminal Equipment (DTE), 16550-compliant.

Internal Dual SD Module

The VxRail P570, P570F, V570, V570F, and S570 support Internal Dual SD module (IDSDM).

The IDSDM is located at the back of the VxRail, in a Dell-proprietary slot. IDSDM card supports two micro SD cards. Micro SD cards capacity for IDSDM are 64 GB.

ⓘ **NOTE:** The IDSDM on the VxRail is pre-configured for appliance bare metal recovery. It is not recommended to change any of the settings.

Video specifications

The VxRail P570, P570F, V570, V570F, and S570 supports integrated Matrox G200eW3 graphics controller with 16 MB of video frame buffer.

The following table describes the supported video resolution options:

Table 21. Video specifications

Resolution	Refresh rate (Hz)	Color depth (bits)
1024 x 768	60	8, 16, 32
1280 x 800	60	8, 16, 32
1280 x 1024	60	8, 16, 32

Table 21. Video specifications (continued)

Resolution	Refresh rate (Hz)	Color depth (bits)
1360 x 768	60	8, 16, 32
1440 x 900	60	8, 16, 32
1600 x 900	60	8, 16, 32
1600 x 1200	60	8, 16, 32
1680 x 1050	60	8, 16, 32
1920 x 1080	60	8, 16, 32
1920 x 1200	60	8, 16, 32

(i) **NOTE:** 1920 x 1080 and 1920 x 1200 resolutions are only supported in reduced blanking mode.

Environmental specifications

The following table describes the temperature specifications:

Table 22. Temperature specifications

Temperature	Specifications
Storage	−40°C to 65°C (−40°F to 149°F)
Continuous operation (for altitude less than 950 m (3117 ft))	10°C to 35°C (50°F to 95°F) with no direct sunlight on the equipment.
Maximum temperature gradient (operating and storage)	20°C/h (36°F/h)

The following table describes the relative humidity specifications:

Table 23. Relative humidity specifications

Relative humidity	Specifications
Storage	5% to 95% RH with 33°C (91°F) maximum dew point. The atmosphere must be non-condensing at all times.
Operating	10% to 80% relative humidity with 29°C (84.2°F) maximum dew point.

The following table describes the maximum vibration specifications:

Table 24. Maximum vibration specifications

Maximum vibration	Specifications
Operating	0.26 G_{rms} at 5 Hz to 350 Hz (all operation orientations).
Storage	1.88 G_{rms} at 10 Hz to 500 Hz for 15 min (all six sides tested).

The following table describes the maximum shock specifications:

Table 25. Maximum shock specifications

Maximum shock	Specifications
Operating	Six consecutively run shock pulses in the positive and negative x, y, and z axes of 40 G for up to 2.3 ms.
Storage	Six consecutively run shock pulses in the positive and negative x, y, and z axes (one pulse on each side of the VxRail) of 71 G for up to 2 ms.

The following table describes the maximum altitude specifications:

Table 26. Maximum altitude specifications

Maximum altitude	Specifications
Operating	3048 m (10,000 ft)
Storage	12,000 m (39,370 ft)

The following table describes the operating temperature de-rating specifications:

Table 27. Operating temperature de-rating specifications

Operating temperature de-rating	Specifications
Up to 35°C (95°F)	Maximum temperature is reduced by 1°C/300 m (1°F/547 ft) above 950 m (3,117 ft).
35°C to 40°C (95°F to 104°F)	Maximum temperature is reduced by 1°C/175 m (1°F/319 ft) above 950 m (3,117 ft).
40°C to 45°C (104°F to 113°F)	Maximum temperature is reduced by 1°C/125 m (1°F/228 ft) above 950 m (3,117 ft).

Standard operating temperature

The standard operating temperature for altitude less than 950 meters or 3117 feet ranges from 10°C to 35°C (50°F to 95°F) with no direct sunlight on the equipment.

Expanded operating temperature

The following table describes the expanded operating temperature specifications:

Table 28. Expanded operating temperature

Expanded operating temperature	Specifications
Continuous operation	5°C to 40°C at 5% to 85% RH with 29°C dew point. ⓘ **NOTE:** Outside the standard operating temperature (10°C to 35°C), the VxRail can operate continuously in temperatures as low as 5°C and as high as 40°C. For temperatures between 35°C to 40°C, de-rate maximum allowable temperature by 1°C per 175 m above 950 m (1°F per 319 ft).
≤ 1% of annual operating hours	−5°C to 45°C at 5% to 90% RH with 29°C dew point. ⓘ **NOTE:** Outside the standard operating temperature (10°C to 35°C), the VxRail can operate down to −5°C or up to 45°C for a maximum of 1% of its annual operating hours. For temperatures 40°C to 45°C, de-rate maximum allowable temperature by 1°C per 125 m above 950 m (1°F per 228 ft).

ⓘ **NOTE:** When operating in the expanded temperature range, VxRail performance may be impacted.

ⓘ **NOTE:** When operating in the expanded temperature range, ambient temperature warnings may be reported in the System Event Log.

Expanded operating temperature restrictions

- Do not perform a cold startup below 5°C.
- The operating temperature specified is for a maximum altitude of 3050 m (10,000 ft).
- 150 W/8 core, 165 W/12 core and higher wattage processor [Thermal Design Power (TDP)>165 W] are not supported.
- Redundant power supply units are required.

- Non-Dell qualified peripheral cards and/or peripheral cards greater than 25 W are not supported.
- Mid drive tray is not supported.
- Rear storage devices or drives are not supported.

Thermal restrictions

This section describes the thermal restrictions and configuration requirements for efficient cooling.

The following table describes the configuration that is required for efficient cooling:

Table 29. Thermal restrictions

Supported VxRail Configuration	Number of processors	Heatsink	Processor/DIMM blank	DIMM blanks	Type of air shroud	Fan
VxRail P Series	1	One 1U standard heat sink for CPU ≤ 125 W	Required	Not required	Standard	Four standard fans and one blank to cover two fan slots.
		One 2U standard heat sink for CPU > 125 W				
VxRail P Series	2	Two 1U standard heat sink for CPU ≤ 125 W	Not required	Not required	Standard	Six standard fans
		Two 2U standard heat sink for CPU > 125 W				
VxRail S Series	1	One 1U high-performance heat sink	Required	Required	Not required	Six high-performance fans
VxRail S Series	2	Two 1U high-performance heat sink	Not required	Required	Not required	Six high-performance fans
VxRail V Series	2	Two 1U high-performance heat sink	Not required	Not required	GPU air shroud	Six high-performance fans

Particulate and gaseous contamination specifications

This section defines the limitations that help avoid any equipment damage or failure from particulate and gaseous contamination.

If the levels of particulate or gaseous pollution exceed the specified limitations and result in equipment damage or failure, you have to rectify the environmental conditions. Remediation of environmental conditions is the responsibility of the customer.

The following table describes the particulate contamination specifications:

Table 30. Particulate contamination specifications

Particulate contamination	Specifications
Air filtration	Data center air filtration as defined by ISO Class 8 per ISO 14644-1 with a 95% upper confidence limit. ⓘ **NOTE:** This condition applies only to data center environments. Air filtration requirements do not apply to IT equipment designed to be used outside a data center, in environments such as an office or factory floor. ⓘ **NOTE:** Air entering the data center must have MERV11 or MERV13 filtration.
Conductive dust	Air must be free of conductive dust, zinc whiskers, or other conductive particles.

Table 30. Particulate contamination specifications (continued)

Particulate contamination	Specifications
	ⓘ **NOTE:** This condition applies to data center and non-data center environments.
Corrosive dust	• Air must be free of corrosive dust. • Residual dust present in the air must have a deliquescent point less than 60% relative humidity. ⓘ **NOTE:** This condition applies to data center and non-data center environments.

The following table describes the gaseous contamination specifications:

Table 31. Gaseous contamination specifications

Gaseous contamination	Specifications
Copper coupon corrosion rate	<300 Å/month per Class G1 as defined by ANSI/ISA71.04-1985.
Silver coupon corrosion rate	<200 Å/month as defined by AHSRAE TC9.9.

ⓘ **NOTE:** Maximum corrosive contaminant levels were measured at ≤50% relative humidity.

4

Initial setup and configuration

To install and deploy VxRail, you can purchase deployment services from Dell Technologies or select the VxRail self-deployment option (no installation services).

If you are using VxRail deployment services from Dell Technologies, do not rack the VxRail or connect power. Contact your Dell Technologies account team or reseller to arrange for deployment by Dell Technologies certified technicians.

Self-deployment

For self-deployment, select the VxRail self-deployment option (no installation services). For self-deployment guidance and preparatory instructions, see KB 187954. You must have extensive network experience, understanding of VxRail infrastructure planning, and deployment knowledge to perform a VxRail self-deployment. Go to the VxRail Configuration Portal to perform self-deployment.

Contact your sales representative for Dell Technologies Services if you are:

● Uncertain you can complete the end-to-end deployment process.
● Unable to complete the deployment.

During the VxRail deployment, iDRAC creates a **vxadmin** or **PTAdmin** account. This account provides hardware information to the **VxRail Manager** and is required for the **VxRail Manager** and the cluster to function properly. Do not modify or delete the **vxadmin** or **PTAdmin** account.

⚠ **CAUTION: If the vxadmin or PTAdmin account is modified or deleted, VxRail Manager and the cluster may not function properly.**

Pre-operating system management applications

You can manage basic settings and features of the VxRail without booting into the operating system by using the system firmware.

Dell Technologies optimizes your VxRail with the settings during installation and configuration. Do not change any basic settings or features set by Dell Technologies to ensure best performance.

⚠ **CAUTION: Performance may be impacted if settings and features configured by Dell Technologies are changed.**

Manage the pre-operating system applications

VxRail contains options to manage the pre-operating system applications.

The following options are available:
- System Setup
- Boot Manager
- Dell Lifecycle Controller
- Preboot Execution Environment (PXE)

iDRAC configuration

The Integrated Dell Remote Access Controller (iDRAC) allows administrators to be more productive and improve the overall availability of Dell products. iDRAC alerts administrators to issues, perform remote management, and reduce the need for physical access.

You can log in to iDRAC as the following users:

- iDRAC user
- Microsoft Active Directory user
- LDAP user

If secure default access to iDRAC is used, the iDRAC secure default password is available on the back of the appliance Information tag. If you have not opted for secure default access to iDRAC, then the default username and password are `root` and `calvin`. You can also log in by using Dell SSO or Smart Card.

The following prerequisites are required to log in to iDRAC:

- You must have iDRAC credentials.
- Change the default username and password after setting up the iDRAC IP address.

The iDRAC IP address is preconfigured for DHCP. You can change to a static IP address by logging into iDRAC.

- To access iDRAC, connect the network cable to the Ethernet connector 1 on the system board.
- Change the default username and password after setting up the iDRAC IP address.

Log in to iDRAC

You can log in to iDRAC as the following users:

- iDRAC user
- Microsoft Active Directory user
- LDAP user

If secure default access to iDRAC is used, the iDRAC secure default password is available on the back of the appliance Information tag. If you have not opted for secure default access to iDRAC, then the default user name and password are `root` and `calvin`. You can also log in by using Dell SSO or Smart Card.

The following prerequisites are a must to log in to iDRAC:

- You must have iDRAC credentials.
- Ensure that you change the default user name and password after setting up the iDRAC IP address.

The iDRAC IP address is pre-configured for DHCP. This can be changed to a static IP address by logging into iDRAC.

- To access iDRAC, connect the network cable to the Ethernet connector 1 on the system board.
- Ensure that you change the default username and password after setting up the iDRAC IP address.

Replacing and adding hardware

Adding or replacing hardware component procedures on your VxRail VxRail, such as hard disk drives (HDDs), solid state drives (SSDs), and power supply units must be performed only by Dell EMC certified service technicians. For certain hardware components, you may need to contact Customer Support for repair or replacement.

Use SolVe Online for VxRail procedures

To avoid potential data loss, always use *SolVe Online for VxRail* to generate procedures before you replace any hardware components or upgrade software.

⚠ **CAUTION: If you do not use *SolVe Online for VxRail* to generate procedures to replace hardware components or perform software upgrades, data loss may occur for VxRail.**

You must have a Dell Technologies Support account to use SolVe Online for VxRail.

Supported hardware components

The following table describes the supported hardware components for VxRail P570, P570F, V570, V570F, and S570.

Table 32. Supported hardware components

Hardware component	V570 and V570F		P570 and P570F		S570	
	Customer Replaceable Unit (CRU)	Field Replaceable Unit (FRU)	Customer Replaceable Unit (CRU)	Field Replaceable Unit (FRU)	Customer Replaceable Unit (CRU)	Field Replaceable Unit (FRU)
System Memory	Yes	Yes	Yes	Yes	Yes	Yes
Hard Drive	Yes	Yes	Yes	Yes	Yes	Yes
SSD (SAS/SATA)	Yes	Yes	Yes	Yes	Yes	Yes
SSD (NVMe)	N/A	N/A	Yes	Yes	N/A	N/A
PCIe Network Interface Cards	Yes	Yes	Yes	Yes	Yes	Yes
Graphical Processing Unit (GPU)	Yes	Yes	Yes	Yes	N/A	N/A
Micro SDHC Card	Yes	Yes	Yes	Yes	Yes	Yes
Power Supply Unit	Yes	Yes	Yes	Yes	Yes	Yes
Processors	No	Yes	No	Yes	No	Yes
System Motherboard	No	Yes	No	Yes	No	Yes
Host Bus Adapter (HBA330)	No	Yes	No	Yes	No	Yes
BOSS controller card and M.2 SATA disk	No	Yes	No	Yes	No	Yes
Network Daughter Card (NDC)	No	Yes	No	Yes	No	Yes

ⓘ **NOTE:** The preceding table provides a non-exhaustive list of FRUs that reflects the common top-level assembly parts.

System memory

The VxRail supports DDR4 registered DIMMs (RDIMMs) and Load Reduced DIMMs (LRDIMMs). System memory holds the instructions that the processor runs.

ⓘ **NOTE:** MT/s indicates DIMM speed in Mega-Transfers per second.

Memory bus operating frequency can be 2666 MT/s, 2400 MT/s, or 2133 MT/s depending on the following factors:

- DIMM type (RDIMM or LRDIMM)
- Number of DIMMs populated per channel
- System profile selected (for example, Performance Optimized, or Custom [can be run at high speed or lower])
- Maximum supported DIMM frequency of the processors

Your VxRail contains 24 memory sockets that are split into two sets of 12 sockets, one set per processor. Each 12-socket set is organized into six channels. In each channel, the release tabs of the first socket are marked white, and the second socket black.
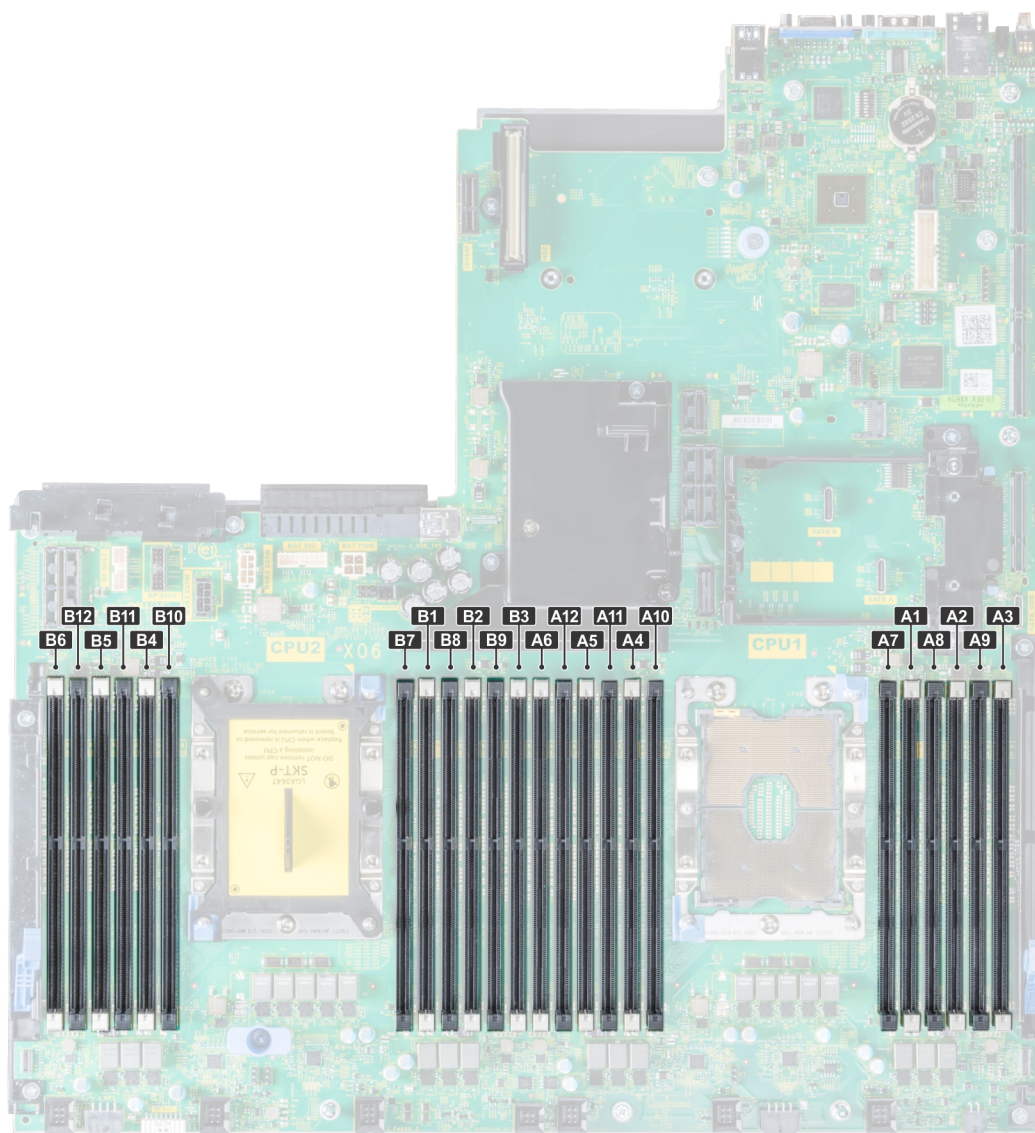
The following figure shows the memory socket locations:

Figure 14. Memory socket locations

The following table describes the memory channels and how the channels are organized:

Table 33. Memory channels

Processor	Channel 0	Channel 1	Channel 2	Channel 3	Channel 4	Channel 5
Processor 1	Slots A1 and A7	Slots A2 and A8	Slots A3 and A9	Slots A4 and A10	Slots A5 and A11	Slots A6 and A12
Processor 2	Slots B1 and B7	Slots B2 and B8	Slots B3 and B9	Slots B4 and B10	Slots B5 and B11	Slots B6 and B12

General memory module installation guidelines

To ensure optimal performance of your system, follow the general guidelines when configuring your system memory. If your system memory configurations fail to observe these guidelines, your system might not boot, stop responding during memory configuration, or operate with reduced memory.

ⓘ **NOTE:** Memory configurations that fail to observe these guidelines can prevent your appliance from booting, stop responding during memory configuration, or operating with reduced memory.

The following are the recommended guidelines for installing memory modules:

- DIMM, RDIMMs, and LRDIMMs must not be mixed.
- Up to two RDIMMs can be populated per channel.
- Up to two LRDIMMs can be populated per channel.
- If memory modules with different speeds are installed, they operate at the speed of the slowest installed memory module(s) or slower depending on appliance DIMM configuration.
- Populate memory module sockets only if a processor is installed. For single-processor VxRail, sockets A1 to A12 are available. For dual-processor VxRail, sockets A1 to A12 and sockets B1 to B12 are available.
- Populate all the sockets with white release tabs first, and then followed by the black release tabs.
- Mixing of more than two memory module capacities in an appliance is not supported.
- In a dual-processor configuration, the memory configuration for each processor should be identical. For example, if you populate socket A1 for processor 1, then populate socket B1 for processor 2, and so on.
- It is recommended that you populate:
  - 4, 6, 8, and 12 memory modules for single-processor configurations, and
  - 8, 12, 16, and 24 memory modules (4, 6, 8, and 12 memory modules per processor) for dual-processor configurations.

One memory module per channel maximizes the performance.

Expansion cards and expansion card riser

An expansion card in the VxRail is an add-on card that can be inserted into an expansion slot on the system board or riser card to add enhanced functionality to the VxRail through the expansion bus.

ⓘ **NOTE:** To avoid data loss, ensure that you use the procedures in the SolVe Desktop application before performing any memory or expansion card replacement or upgrade procedures.

ⓘ **NOTE:** A System Event Log (SEL) event is logged if an expansion card riser is unsupported or missing. It does not prevent your VxRail from turning on and no BIOS POST message or F1/F2 pause is displayed.

Expansion card installation guidelines

The VxRail P570, P570F, V570, V570F, and S570 support PCI express (PCIe) generation 3 expansion cards, that can be installed on the system board using expansion card risers.

The following table provides detailed information about the expansion card riser specifications:

Table 34. Expansion card riser specifications

Supported VxRail configurations	Riser configurations and supported risers	Slot description	PCIe slots on riser 1 (Height and length)	Processor connection	PCIe slots on riser 2 (Height and length)	Processor connection	PCIe slots on riser 3 (Height and length)	Processor connection
VxRail P570, P570F, and S570	Riser configuration 1 with or without rear storage (1B+2B)	Four x8 slots and rear storage	Slot 1: x8 full-height, full length Slot 2: x8 full-height, full length Slot 3: x8 full-height, half length	Processor 1	Slot 4: x8 low profile, half length	Processor 1	N/A	N/A
VxRail P570, P570F, V570, and V570F	Riser configuration 4 (1A+2A+3A)	Three x8 and four x16 slots	Slot 1: x16 full-height, full length	Processor 1	Slot 4: x16 full-height, full length	Processor 2	Slot 7: x8 full-height, full length	Processor 2
			N/A	N/A	Slot 5: x8 full-height, full length		Slot 8: x16 full-height, full length	
			Slot 3: x16 full-height, half length	Processor 1	Slot 6: x8 low profile, half length	Processor 1		
VxRail V570, and V570F	Riser configuration 6 (1D+2A+3A)	Five x8 and three x16 slots	Slot 1: x16 full-height, full length	Processor 1	Slot 4: x16 full-height, full length	Processor 2	Slot 7: x8 full-height, full length	Processor 2
			Slot 2: x8 full-height, full length		Slot 5: x8 full-height, full length		Slot 8: x16 full-height, full length	
			Slot 3: x8 full-height, half length		Slot 6: x8 low profile, half length	Processor 1		
	Riser configuration 15 (1A+2E+3B)	Three x8 and four x16 slots	Slot 1: x16 full-height, full length	Processor 1	Slot 4: x16 full-height, full length	Processor 2	Slot 7: x8 full-height, full length	Processor 2
			N/A	N/A	Slot 5: x8 full-height, full length		Slot 8: x16 full-height, full length	
			Slot 3: x16 full-height, half length	Processor 1	Slot 6: x8 low profile, half length	Processor 1		
	Riser configuration 16 (1D+2E+3B)	Five x8 and three x16 slots	Slot 1: x16 full-height, full length	Processor 1	Slot 4: x16 full-height, full length	Processor 2	Slot 7: x8 full-height, full length	Processor 2
			Slot 2: x8 full-height, full length		Slot 5: x8 full-height, full length		Slot 8: x16 full-height, full length	
			Slot 3: x8 full-height, half length		Slot 6: x8 low profile, half length	Processor 1		

The following table describes Riser configuration 1 with or without rear storage (1B+2B) for VxRail P570 series (single processor) and VxRail S570 (single or dual processor):

Table 35. Riser configuration 1 with or without rear storage (1B+2B) for VxRail P570 series (single processor) and VxRail S570 (single or dual processor)

Card Type	Slot priority	Form factor
HBA330 Mini	Integrated slot	N/A
Network Daughter Card	Integrated slot	N/A
PCIe NIC 25 GbE	1, 2, 3	Full height
PCIe NIC 10 GbE	1, 2, 3	Full height
PCIe FC HBA	1, 2, 3	Full height
HWRAID BOSS	4	Low profile

The following table describes Riser configuration 4 (1A+2A+3A) for VxRail V570 series dual processor:

Table 36. Riser configuration 4 (1A+2A+3A) for VxRail V570 series dual processor

Card Type	Slot priority	Form factor
HBA330 Adapter	6	Low profile
Network Daughter Card	Integrated slot	N/A
PCIe NIC 25 GbE	1, 5, 4, 7, 8	Full height
PCIe NIC 10 GbE	1, 5, 4, 7, 8	Full height
PCIe FC HBA	1, 5, 4, 7, 8	Full height
HWRAID BOSS	3	Full height
PCIe NIC 100 GbE	1, 4, 8	Full height
Double Wide GPU	1, 4, 8	Full height

The following table describes Riser configuration 4 (1A+2A+3A) for VxRail V570 series dual processor with two 100 GbE NIC and two GPU adjustment:

Table 37. Riser configuration 4 (1A+2A+3A) for VxRail V570 series dual processor with two 100 GbE NIC and two GPU adjustment

Card Type	Slot priority	Form factor
HBA330 Adapter	6	Low profile
Network Daughter Card	Integrated slot	N/A
PCIe NIC 25 GbE	5, 4, 7, 8, 3	Full height
PCIe NIC 10 GbE	5, 4, 7, 8, 3	Full height
PCIe FC HBA	5, 4, 7, 8, 3	Full height
HWRAID BOSS	3, 5	Full height
PCIe NIC 100 GbE	1, 8, 4, 3	Full height
Double Wide GPU	1, 8, 4	Full height

The following table describes Riser configuration 6 (1D+2A+3A) for VxRail P570F and VxRail V570 series with dual processor:

Table 38. Riser configuration 6 (1D+2A+3A) for VxRail P570F and VxRail V570 series with dual processor

Card Type	Slot priority	Form factor
HBA330 Adapter	6	Low profile
Network Daughter Card	Integrated slot	N/A
PCIe Bridge Card	1	Full height

Table 38. Riser configuration 6 (1D+2A+3A) for VxRail P570F and VxRail V570 series with dual processor (continued)

Card Type	Slot priority	Form factor
PCIe NIC 25 GbE	5, 4, 7, 8, 2	Full height
PCIe NIC 10 GbE	5, 4, 7, 8, 2	Full height
PCIe FC HBA	5, 4, 7, 8, 2	Full height
HWRAID BOSS	3	Full height
PCIe NIC 100 GbE	4, 8	Full height
Single Wide GPU (VxRail V570 series only)	1, 2, 4, 5, 7, 8	Full height

The following table describes Riser configuration 15 (1A+2E+3B) for VxRail V570 series with dual processor:

Table 39. Riser configuration 15 (1A+2E+3B) for VxRail V570 series with dual processor

Card Type	Slot priority	Form factor
HBA330 Adapter	6	Low profile
Network Daughter Card	Integrated slot	N/A
PCIe NIC 25 GbE	5, 4, 7, 8, 1	Full height
PCIe NIC 10 GbE	5, 4, 7, 8, 1	Full height
PCIe FC HBA	5, 4, 7, 8, 1	Full height
HWRAID BOSS	3	Full height
PCIe NIC 100 GbE	1, 8, 4	Full height
Double Wide GPU	1, 8, 4	Full height

The following table describes Riser configuration 15 (1A+2E+3B) for VxRail V570 series dual processor with two 100 GbE NIC and two GPU adjustment:

Table 40. Riser configuration 15 (1A+2E+3B) for VxRail V570 series dual processor with two 100 GbE NIC and two GPU adjustment

Card Type	Slot priority	Form factor
HBA330 Adapter	6	Low profile
Network Daughter Card	Integrated slot	N/A
PCIe NIC 25 GbE	5, 4, 7, 8, 3	Full height
PCIe NIC 10 GbE	5, 4, 7, 8, 3	Full height
PCIe FC HBA	5, 4, 7, 8, 3	Full height
HWRAID BOSS	3, 5	Full height
PCIe NIC 100 GbE	1, 8, 4, 3	Full height
Double Wide GPU	1, 8, 4	Full height

The following table describes Riser configuration 16 (1D+2E+3B) for VxRail V570 series with dual processor:

Table 41. Riser configuration 16 (1D+2E+3B) for VxRail V570 series with dual processor

Card Type	Slot priority	Form factor
HBA330 Adapter	6	Low profile
Network Daughter Card	Integrated slot	N/A
PCIe NIC 25 GbE	8, 7, 5, 4, 2, 1	Full height

Table 41. Riser configuration 16 (1D+2E+3B) for VxRail V570 series with dual processor (continued)

Card Type	Slot priority	Form factor
PCIe NIC 10 GbE	8, 7, 5, 4, 2, 1	Full height
PCIe FC HBA	8, 7, 5, 4, 2, 1	Full height
HWRAID BOSS	3	Full height
PCIe NIC 100 GbE	1, 8, 4	Full height
Double Wide GPU	1, 8, 4	Full height

(i) **NOTE:** The expansion card slots are not hot-swappable.