Dell EMC PowerEdge R940xa

Technical Specifications

Regulatory Model: E54S Series
Regulatory Type: E54S001

Notes, cautions, and warnings

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.

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Contents

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PowerEdge R940xa system overview

The PowerEdge R940xa is a 4U rack server that supports up to:

- Four Intel Xeon Processor Scalable family processors.
- 48 DIMM slots supporting up to 6144 GB of memory.
- Four AC or DC power supply units with 2+2 redundancy, auto sensing, and autoswitching capability.
- 2.5-inch x 32 (SAS/SATA HDD/SSDs and that includes 4 NVMe SSDs).

NOTE: For more information about supported drives, see the Technical specifications.

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

Topics:

Front view of the system

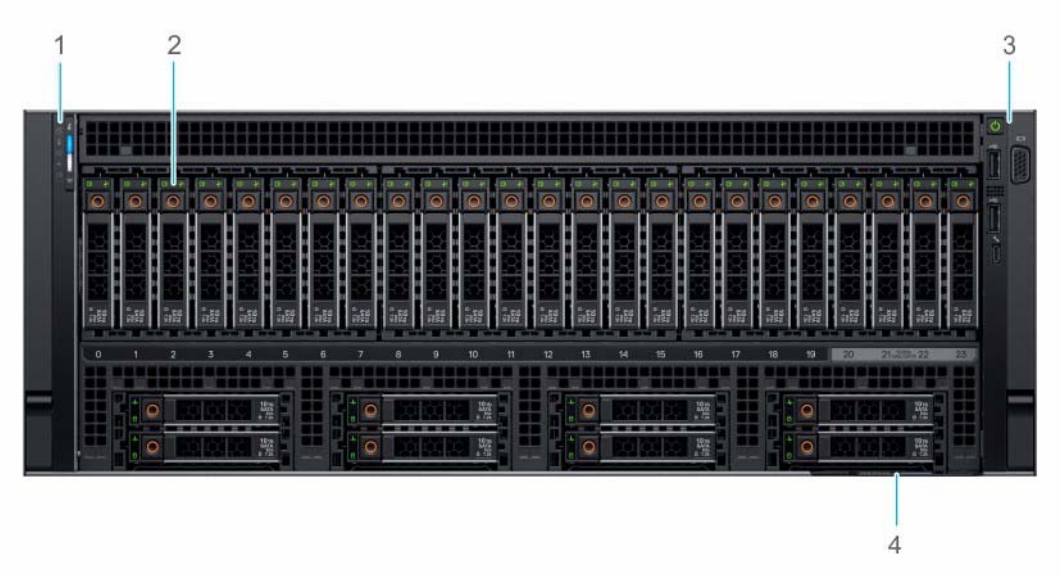

Figure 1. Front view of 32 x 2.5-inch drive system

1	Left control panel	2	Drives (32)
3	Right control panel	4	Information tag

Control panels

The control panels allow you to manually control the inputs to the server.

Left control panel view

Figure 2. Left control panel view

1	Status LED indicators	2	System health and system ID indicator
3	iDRAC Quick Sync 2 wireless indicator (optional)		

Right control panel view

Figure 3. Right control panel view

1 Power button
2 USB 2.0 port (2)
3 iDRAC Direct port
4 iDRAC Direct LED
5 VGA port

NOTE: For more information on the ports, see Technical Specifications.

Back view of the system

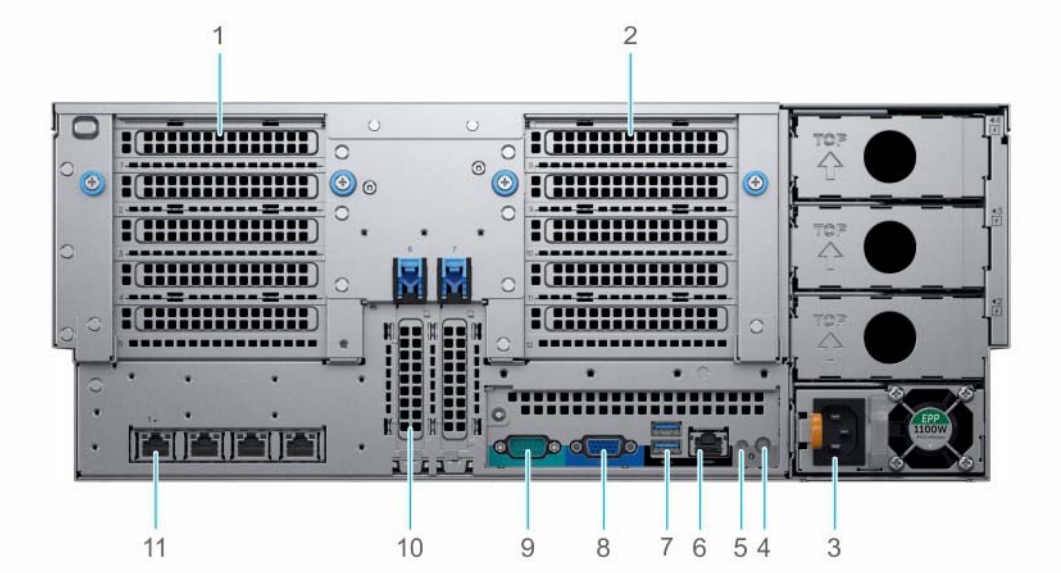

Figure 4. Back view of the system

1 Full-height expansion riser 1
2 Full-height expansion riser 2
3 Power supply units (4)
4 System identification button
5 CMA power port
6 iDRAC9 dedicated port

7 USB 3.0 ports (2)
8 VGA port
9 Serial port
10 Low profile expansion card slots (2)
11 NIC ports (4)

NOTE: For more information on the ports and connectors, see Technical specifications.

NOTE: The expansion card configurations are X8 PCIe Riser 1+X8 PCIe Riser 2 or X16 PCIe Riser 1+X16 PCIe Riser 2.

System diagnostics and indicator codes

The diagnostic indicators on the system front panel display system status during system startup.

Status LED indicators

NOTE: The indicators display solid amber if any error occurs.

Table 1. Status LED indicators and descriptions

Icon	Description	Condition	Corrective action
	Drive indicator	The indicator turns solid amber if there is a drive error.	· Check the System Event Log to determine if the drive has an error. · Run the appropriate Online Diagnostics test. Restart the system and run embedded diagnostics (ePSA). · If the drives are configured in a RAID array, restart the system, and enter the host adapter configuration utility program.
	Temperature indicator	The indicator turns solid amber if the system 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. · System 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 Getting help.
	Electrical indicator	The indicator turns solid amber if the system 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 system 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 Getting help.
	Memory indicator	The indicator turns solid amber if a memory error occurs.	Check the System Event Log or system messages for the location of the failed memory. Reseat the memory module. If the problem persists, see Getting help.
	PCIe indicator	The indicator turns solid amber if a PCIe card experiences an error.	Restart the system. Update any required drivers for the PCIe card. Reinstall the card. If the problem persists, see Getting help.

System health and system ID indicator codes

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

Figure 5. System health and system ID indicators

Table 2. System health and system ID indicator codes

Indicator code	Description
Solid blue	Indicates that the system is turned on, system is healthy, and system ID mode is not active. Press the system health and system ID button to switch to system ID mode.
Blinking blue	Indicates that the system ID mode is active. Press the system health and system ID button to switch to system health mode.
Solid amber	Indicates that the system is in fail-safe mode. If the problem persists, see the Getting help section.
Blinking amber	Indicates that the system is experiencing a fault. Check the System Event Log or the LCD panel, if available on the bezel, for specific error messages. For more information about error messages, see the *Dell Event and Error Messages Reference Guide* at Dell.com/openmanagemanuals > OpenManage software.

iDRAC Quick Sync 2 indicator codes

iDRAC Quick Sync 2 module (optional) is located on the left control panel of your system.

Figure 6. iDRAC Quick Sync 2 indicators

Table 3. iDRAC Quick Sync 2 indicators and descriptions

Indicator code	Description	Corrective action
Off (default state)	Indicates that the iDRAC Quick Sync 2 feature is turned off. Press the iDRAC Quick Sync 2 button to turn on the iDRAC Quick Sync 2 feature.	If the LED fails to turn on, reseat the left control panel flex cable and check. If the problem persists, see the Getting help section.
Solid white	Indicates that iDRAC Quick Sync 2 is ready to communicate. Press the iDRAC Quick Sync 2 button to turn off.	If the LED fails to turn off, restart the system. If the problem persists, see the Getting help section.
Blinks white rapidly	Indicates data transfer activity.	If the indicator continues to blink indefinitely, see the Getting help section.

Indicator code	Description	Corrective action
Blinks white slowly	Indicates that firmware update is in progress.	If the indicator continues to blink indefinitely, see the Getting help section.
Blinks white five times rapidly and then turns off	Indicates that the iDRAC Quick Sync 2 feature is disabled.	Check if iDRAC Quick Sync 2 feature is configured to be disabled by iDRAC. If the problem persists, see the Getting help section. For more information, see *Integrated Dell Remote Access Controller User's Guide* at Dell.com/idracmanuals or *Dell OpenManage Server Administrator User's Guide* at Dell.com/openmanagemanuals.
Solid amber	Indicates that the system is in fail-safe mode.	Restart the system. If the problem persists, see the Getting help section.
Blinking amber	Indicates that the iDRAC Quick Sync 2 hardware is not responding properly.	Restart the system. If the problem persists, see the Getting help section.

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 activity when the iDRAC Direct port is active:

Table 4. 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.

NIC indicator codes

Each NIC on the back of the system 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.

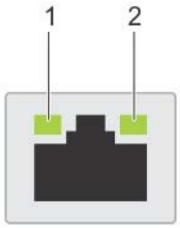

Figure 7. NIC indicator codes

1 link LED indicator

2 activity LED indicator

Table 5. NIC indicator codes

Status	Condition
Link and activity indicators are off	The NIC is not connected to the network.
Link indicator is green and 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 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 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 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.

Power supply unit indicator codes

AC power supply units (PSUs) have an illuminated translucent handle that serves as an indicator.

The DC PSUs have an LED that serves as an indicator.

For more information on the PSU specifications, see Technical Specifications.

For information about the event and error messages generated during POST, when a 2400W PSU is connected to a 110V power source, see the Dell Event and Error Messages Reference Guide at Dell.com/openmanagemanuals > OpenManage software.

The indicator shows whether power is present or if a power fault has occurred.

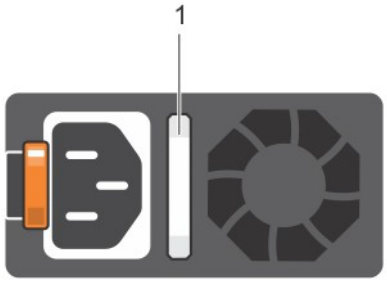

Figure 8. AC PSU status indicator

1 AC PSU status indicator/handle

Table 6. AC PSU status indicator codes

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.

Power indicator codes	Condition
	CAUTION: Do not disconnect the power cord or unplug the PSU when updating firmware. If firmware update is interrupted, the PSUs do not function.
Blinking green and turns off	When hot-plugging a PSU, the PSU handle blinks green five times at a rate of 4 Hz and turns off. This indicates a PSU mismatch with respect to efficiency, feature set, health status, or supported voltage. CAUTION: If two PSUs are installed, both the PSUs must have the same type of label; for example, Extended Power Performance (EPP) label. Mixing PSUs from previous generations of PowerEdge servers is not supported, even if the PSUs have the same power rating. This results in a PSU mismatch condition or failure to turn the system on. CAUTION: When correcting a PSU mismatch, replace only the PSU with the blinking indicator. Swapping the PSU to make a matched pair can result in an error condition and unexpected system shutdown. To change from a high output configuration to a low output configuration or vice versa, you must turn off the system. CAUTION: AC PSUs support both 240 V and 120 V input voltages with the exception of Titanium PSUs, which support only 240 V. When two identical PSUs receive different input voltages, they can output different wattages, and trigger a mismatch. CAUTION: If two PSUs are used, they must be of the same type and have the same maximum output power. CAUTION: Combining AC and DC PSUs is not supported and triggers a mismatch.

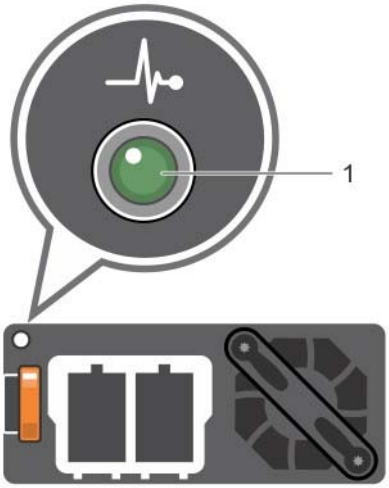

Figure 9. DC PSU status indicator

1 DC PSU status indicator

Table 7. DC PSU status indicator codes

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.

Power indicator codes	Condition
Blinking green	When hot-plugging a PSU, the PSU indicator blinks green. This indicates that there is a PSU mismatch with respect to efficiency, feature set, health status, or supported voltage. CAUTION: If two PSUs are installed, both the PSUs must have the same type of label; for example, Extended Power Performance (EPP) label. Mixing PSUs from previous generations of PowerEdge servers is not supported, even if the PSUs have the same power rating. This results in a PSU mismatch condition or failure to turn the system on. CAUTION: When correcting a PSU mismatch, replace only the PSU with the blinking indicator. Swapping the PSU to make a matched pair can result in an error condition and unexpected system shutdown. To change from a High Output configuration to a Low Output configuration or vice versa, you must turn off the system. CAUTION: If two PSUs are used, they must be of the same type and have the same maximum output power. CAUTION: Combining AC and DC PSUs is not supported and triggers a mismatch.

Drive indicator codes

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

Figure 10. Drive indicators on the drive and the mid drive tray backplane

1 Drive activity LED indicator
2 Drive status LED indicator
3 Drive

NOTE: If the drive is in the Advanced Host Controller Interface (AHCI) mode, the status LED indicator does not turn on.

Table 8. Drive indicator codes

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

Drive status indicator code	Condition
	NOTE: The drive status indicator remains off until all drives are initialized after the system is turned on. 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	Drive failed.
Flashes green slowly	Drive rebuilding.
Solid green	Drive online.
Flashes green for three seconds, amber for three seconds, and then turns off after six seconds	Rebuild stopped.

LCD panel

The LCD panel provides system information, status, and error messages to indicate if the system is functioning correctly or requires attention. The LCD panel can also be used to configure or view the system's iDRAC IP address. For more information about error messages, see the *Dell Event and Error Messages Reference Guide* at Dell.com/openmanagemanuals > OpenManage software.

The LCD panel is available only on the optional front bezel. The optional front bezel is hot pluggable.

The statuses and conditions of the LCD panel are outlined here:

- The LCD backlight is white during normal operating conditions.
- When the system needs attention, the LCD backlight turns amber, and displays an error code followed by descriptive text.

  NOTE: If the system is connected to a power source and an error is detected, the LCD turns amber regardless of whether the system is turned on or off.
- When the system turns off and there are no errors, LCD enters the standby mode after five minutes of inactivity. Press any button on the LCD to turn it on.
- If the LCD panel stops responding, remove the bezel and reinstall it. If the problem persists, see Getting help.
- The LCD backlight remains off if LCD messaging is turned off using the iDRAC utility, the LCD panel, or other tools.

Figure 11. LCD panel features

Table 9. LCD panel features

Item	Button or display	Description
1	Left	Moves the cursor back in one-step increments.
2	Select	Selects the menu item highlighted by the cursor.
3	Right	Moves the cursor forward in one-step increments. During message scrolling: · Press and hold the right button to increase scrolling speed. · Release the button to stop.

Item	Button or display	Description
		NOTE: The display stops scrolling when the button is released. After 45 seconds of inactivity, the display starts scrolling.
4	LCD display	Displays system information, status, and error messages or iDRAC IP address.

Viewing Home screen

The Home screen displays user-configurable information about the system. This screen is displayed during normal system operation when there are no status messages or errors. When the system turns off and there are no errors, LCD enters the standby mode after five minutes of inactivity. Press any button on the LCD to turn it on.

1 To view the Home screen, press one of the three navigation buttons (Select, Left, or Right).

2 To navigate to the Home screen from another menu, complete the following steps:

a Press and hold the navigation button till the up arrow is displayed.

b Navigate to the using the up arrow

c Select the Home icon.

d On the Home screen, press the Select button to enter the main menu.

Setup menu

NOTE: When you select an option in the Setup menu, you must confirm the option before proceeding to the next action.

Option	Description
iDRAC	Select DHCP or Static IP to configure the network mode. If Static IP is selected, the available fields are IP, Subnet (Sub), and Gateway (Gtw). Select Setup DNS to enable DNS and to view domain addresses. Two separate DNS entries are available.
Set error	Select SEL to view LCD error messages in a format that matches the IPMI description in the SEL. This enables you to match an LCD message with an SEL entry. Select Simple to view LCD error messages in a simplified user-friendly description. For more information about error messages, see the *Dell Event and Error Messages Reference Guide* at Dell.com/openmanagemanuals > OpenManage software.
Set home	Select the default information to be displayed on the Home screen. See View menu section for the options and option items that can be set as the default on the Home screen.

View menu

NOTE: When you select an option in the View menu, you must confirm the option before proceeding to the next action.

Option	Description
iDRAC IP	Displays the IPv4 or IPv6 addresses for iDRAC9. Addresses include DNS (Primary and Secondary), Gateway, IP, and Subnet (IPv6 does not have Subnet).
MAC	Displays the MAC addresses for iDRAC, iSCSI, or Network devices.
Name	Displays the name of the Host, Model, or User String for the system.

Option	Description
Number	Displays the Asset tag or the Service tag for the system.
Power	Displays the power output of the system in BTU/hr or Watts. The display format can be configured in the Set home submenu of the Setup menu.
Temperature	Displays the temperature of the system in Celsius or Fahrenheit. The display format can be configured in the Set home submenu of the Setup menu.

Locating the information tag of your system

You can identify your system using the unique Express Service Code and Service Tag. Pull out the information tag in front of the system to view the Express Service Code and Service Tag. Alternatively, the information may be on a sticker on the back of the system chassis. The mini Enterprise Service Tag (EST) is found on the back of the system chassis. This information is used by Dell to route support calls to the appropriate personnel.

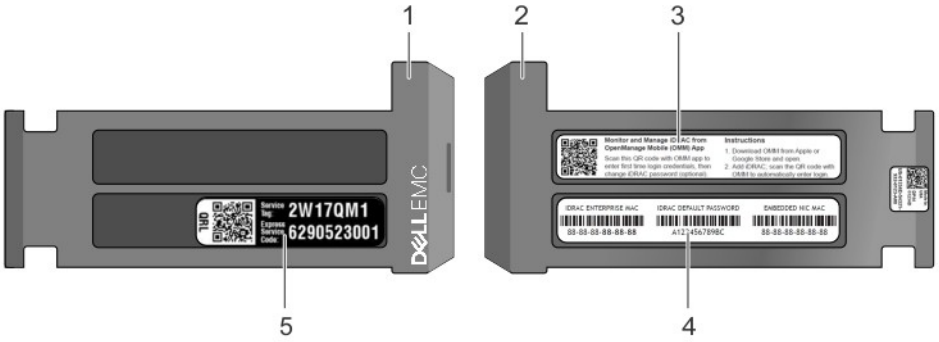

Figure 12. Locating the information tag of your system

1 Information tag (Top view)

2 Information tag (Bottom view)

3 OpenManage Mobile (OMM) label

4 iDRAC MAC address and iDRAC secure password label

NOTE: If you have opted for secure default access to iDRAC, the iDRAC secure default password is available on the back of the system Information tag. This label will be blank, if you have not opted for secure default access to iDRAC, then the default user name and password are root and calvin.

5 Service Tag

Inside the system

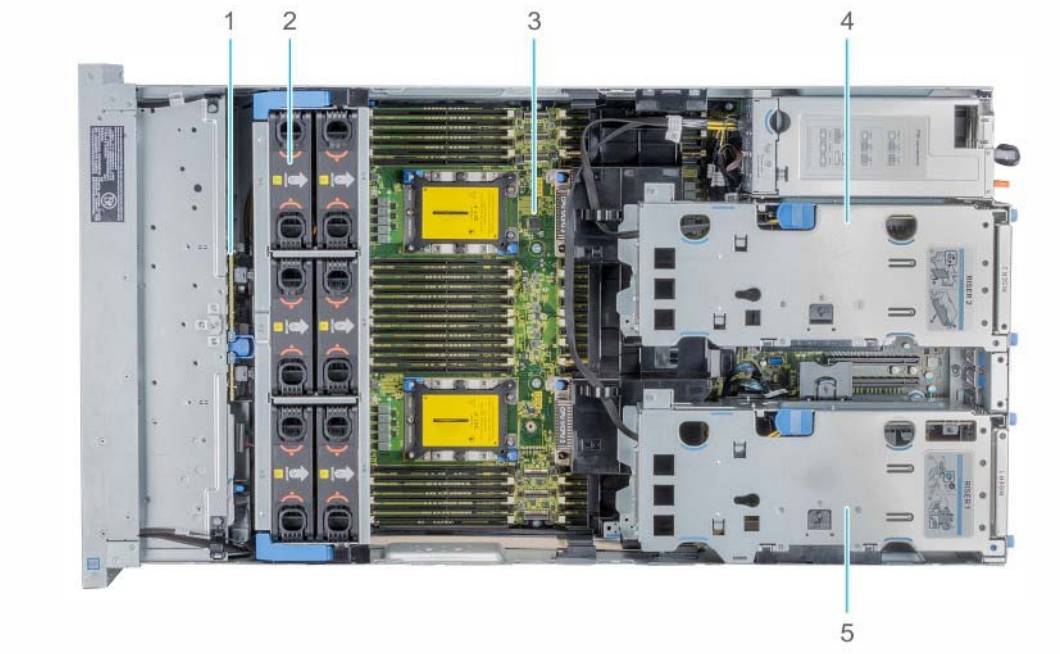

Figure 13. Inside the system

1 Drive backplane
2 Cooling fan assembly
3 System board
4 Riser 2
5 Riser 1

Locating the information tag of your system

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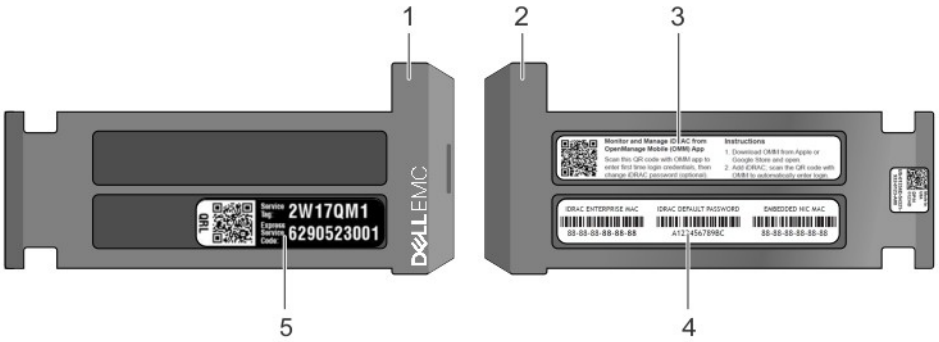

Figure 14. Locating the information tag of your system

1 Information tag (Top view)

2 Information tag (Bottom view)

3 OpenManage Mobile (OMM) label

4 iDRAC MAC address and iDRAC secure password label

NOTE: If you have opted for secure default access to iDRAC, the iDRAC secure default password is available on the back of the system Information tag. This label will be blank, if you have not opted for secure default access to iDRAC, then the default user name and password are root and calvin.

5 Service Tag

2

Technical specifications

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

Topics:

System dimensions

This section describes the physical dimensions of the system.

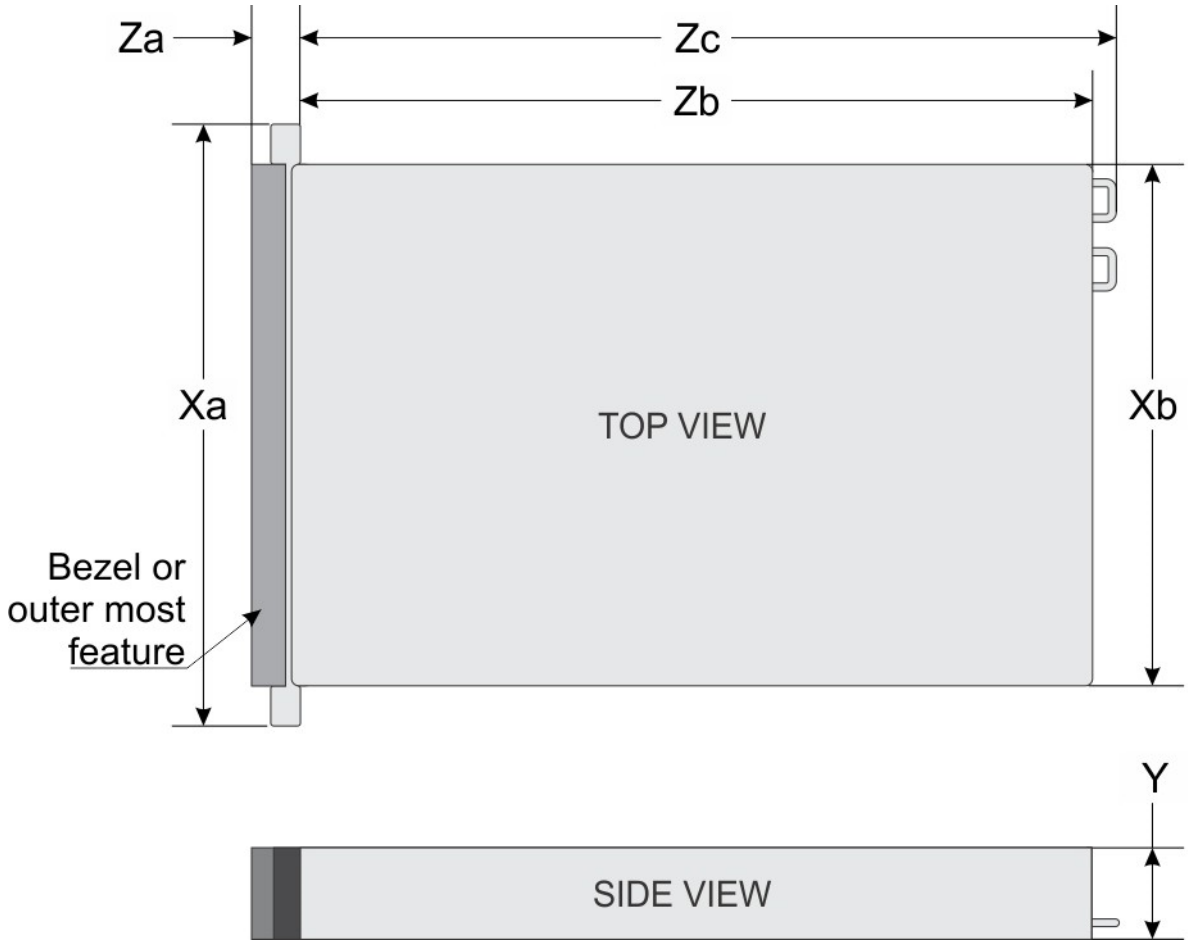

Figure 15. System dimensions of PowerEdge R940xa system

Table 10. Dimensions

System	Xa	Xb		Y	Za		Zb	Zc
		Upper	Bottom		(with bezel)	(without bezel)		
PowerEdge R940xa	482.0 mm (18.98 inches)	441.16 mm (17.37 inches)	422.5 mm (16.64 inches)	174.3 mm (6.87 inches)	35.84 mm (1.41 inches)	23.9 mm (0.94 inches)	812 mm (31.96 inches)	842 mm (33.14 inches)

Chassis weight

Table 11. Chassis weight

System	Maximum weight (with all drives)
PowerEdge R940xa (2.5 x 32 + X16 PCIe Riser 1/X16 PCIe Riser 2 riser with 4 DW GPU + 2 full height, half length PCIE cards)	56.0 Kg (111.75 lb)

Processor specifications

The PowerEdge R940xa system supports two or four Intel Xeon Processor Scalable Family (Skylake-EP) Gold and Platinum processors.

PSU specifications

The PowerEdge R940xa system supports up to four AC or DC power supply units (PSUs).

Table 12. PSU specifications

PSU	Class	Heat dissipation (maximum)	Frequency	Voltage	High line 200v240 V	Low line 100- 140 V	DC	Current
750 W Mixed Mode HVDC (for China only)	Platinum	2891 BTU/hr	50/60 Hz	100-240 V AC, autoranging	750 W	750 W	N/A	10 A-5 A
	N/A	2891 BTU/hr	N/A	240 V DC, autoranging	N/A	N/A	750 W	4.5 A
1100 W AC	Platinum	4100 BTU/hr	50/60 Hz	100-240 V AC, autoranging	1100 W	1050 W	N/A	12 A-6.5 A
1100 W DC	N/A	4416 BTU/hr	N/A	-(48-60) V DC, autoranging	N/A	N/A	1100 W	32 A
1100 W Mixed Mode HVDC (for China and Japan only)	Platinum	4100 BTU/hr	50/60 Hz	100-240 V AC, autoranging	1100 W	1050 W	N/A	12 A-6.5 A
	N/A	4100 BTU/hr	N/A	200-380 V DC, autoranging	N/A	N/A	1100 W	6.4 A-3.2 A
1600 W AC	Platinum	6000 BTU/hr	50/60 Hz	100-240 V AC, autoranging	1600 W	800 W	N/A	10 A
2000 W AC	Platinum	7500 BTU/hr	50/60 Hz	100-240 V AC, autoranging	2000 W	1000 W	N/A	11.5 A
2400 W AC	Platinum	9000 BTU/hr	50/60 Hz	100-240 V AC, autoranging	2400 W	1400 W	N/A	16 A

NOTE: Heat dissipation is calculated using the PSU wattage rating.

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

NOTE: PSUs rated for 1100 W AC or 1100 W Mixed Mode HVDC and higher require high-line voltage (200-240 V AC) to supply their rated capacity.

System battery specifications

The PowerEdge R940xa system supports CR 2032 3.0-V lithium coin cell system battery.

PCIe riser and slots

The PowerEdge R940xa system supports up to twelve PCI express (PCIe) generation 3 expansion cards that can be installed on the system board and expansion card risers. The following table provides detailed information about the expansion card riser specifications:

Table 13. PCIe riser and slots specifications

Number of processors	NVMe	GPU	Riser size	Slot size	Slot quantity	Available slots	Height	Length
4	NA	GPU Ready	X16 PCIe Riser 1	X 16	2	2,4	FH	FL
				X 8	1	5	FH	HL
			X16 PCIe Riser 2	X 16	2	9,11	FH	FL
				X 8	1	12	FH	HL
	NA	Non-GPU	X8 PCIe Riser 1	X 8	5	1,2,3,4,5	FH	HL
			X8 PCIe Riser 2	X 8	5	8,9,10,11,12	FH	HL
	Front NVMe	GPU Ready	X16 PCIe Riser 1	X 16	2	2,4	FH	FL
			X16 PCIe Riser 2	X 16	2	9,11	FH	FL
	Front NVMe	Non-GPU	X8 PCIe Riser 1	X 8	4	1,2,3,4	FH	HL
			X8 PCIe Riser 2	X 8	4	8,9,10,11	FH	HL
2	NA	GPU Ready	X16 PCIe Riser 1	X 16	1	4	FH	FL
			X16 PCIe Riser 2	X 16	1	11	FH	FL
	NA	Non-GPU	X8 PCIe Riser 1	X 8	2	3,4	FH	HL
			X8 PCIe Riser 2	X 8	2	10,11	FH	HL

NOTE: For more information on expansion card risers, see Meeseeks PCIe Configuration Tool *https://internal.software/meeseeks/index.html*

Memory specifications

The PowerEdge R940xa system supports up to 48 RDIMMs, LRDIMMs, and NVDIMMs with speeds of 2667 MT/s, 2400 MT/s, 2133 MT/s, and 1866 MT/s with support for memory optimized operation.

Table 14. Memory specifications

DIMM type		LRDIMM		RDIMM			NVDIMM
DIMM rank		Octal rank	Quad rank	Quad rank	Dual rank	Single rank	Single rank
DIMM capacity		128 GB	64 GB	32 GB	16 GB	8 GB	16 GB
Dual processors	Minimum RAM	256 GB	128 GB	64 GB	32 GB	16 GB	16 GB
	Maximum RAM	3072 GB	1536 GB	768 GB	384 GB	192 GB	32 GB
Quad processors	Minimum RAM	512 GB	256 GB	128 GB	64 GB	32 GB	32 GB

DIMM type		LRDIMM		RDIMM			NVDIMM
	Maximum RAM	6144 GB	3072 GB	1536 GB	768 GB	384 GB	64 GB

NOTE: 8 GB RDIMMs and 16 GB NVDIMM-N must not be mixed.

NOTE: 64 GB LRDIMMs and 128 GB LRDIMMs must not be mixed.

Table 15. DIMM blank population rules

Processor configuration	Dual processor	Quad processor
CPU 1	Required	Required
CPU 2	Required	Required
CPU 3	Not required	Required
CPU 4	Not required	Required

NOTE: The system will function normally if there are two processors installed in the CPU 1 and 2 sockets. Processor and memory blanks associated with CPU 3 and 4 are not required to be installed.

Storage controller specifications

The PowerEdge R940xa system supports:

- Internal storage controller cards: PowerEdge RAID Controller (PERC) H330, PERC H730P, H830, H740P, H840, HBA330, S140, and Boot Optimized Server Storage—BOSS-S1.
- External storage controller cards: 12 Gbps SAS HBA.

Drive specifications

Storage

The Dell EMC PowerEdge R940xa provide scalable storage that allows you to adapt to your workload and operational demands. The Dell EMC PowerEdge R940xa offers storage expansion with the middle hard drive tray and rear hard drive cage. The hard drive bay supports up to 32 2.5 inch hard drives or SSDs.

Hard Drive

The Dell EMC PowerEdge R940xa system supports SAS, SATA, or NVMe SSD drives.

The PowerEdge R940xa system supports SAS, SATA, Nearline SAS hard drives/SSDs, or NVMe drives.

The supported drive and SSD options for the PowerEdge R940xa system are:

- 8 drives system - Up to eight 2.5 inch (SAS, SATA or Nearline SAS) front accessible drives in slots 0 through 7.
- 32 drives system - Up to 24 2.5 inch (SAS, SATA or Nearline SAS) including 4 NVMe front accessible drives (slots 20 to 23) in slots 0 to 23 of upper drives bay, and up to eight 2.5 inch (SAS, SATA or Nearline SAS) front accessible drives in slots 24 to 31 of lower drives bay.

Supported drives

Table 16. Supported Drives - SAS and SATA or SSD

Form Factor	Type	Speed	Rotational Speed	Capacities
2.5 inch	SATA, SSD	6 Gb	N/A	240GB, 400GB, 480GB, 800GB, 960GB, 1600GB, 1920GB, 3200GB, 3840GB
	SATA	6 Gb	7.2K	1 TB, 2 TB
	SAS	12 Gb	7.2K	1 TB, 2 TB, 2 TB(SED FIPS)
	SAS,SSD	12 Gb	N/A	400GB, 480GB, 800GB, 960GB, 1600GB, 1920GB, 3840GB, 800GB(SED FIPS), 1600GB(SED FIPS)
	SAS	12 Gb	10K	300GB, 600GB, 1.2TB, 1.8TB, 2.4TB, 1.2TB(SED FIPS), 2.4TB (SED FIPS)
	SAS	12 Gb	15K	300GB, 600GB, 900GB, 900GB (SED FIPS)

The NVMe SSD drives supported by the Dell EMC PowerEdge R940xa are:

- 800 GB 2.5 inch device
- 1 TB 2.5 inch device
- 1.6 TB 2.5 inch device
- 2 TB 2.5 inch device
- 3.2 TB 2.5 inch device
- 4 TB 2.5 inch device
- 6.4 TB 2.5 inch device
- KIT,CRD,NVM,1.6,HHHL,PM1725
- KIT,CRD,CTL,NVME,PM1725
- KIT,CRD,NVM,3.2,HHHL,PM1725

Boot Optimized Storage Subsystem

The Boot Optimized Storage Subsystem (BOSS) is offered as a means of booting PowerEdge systems to a full OS mode when,

- Target OS is a full OS and not hypervisor that may be supported best by IDSDM
- You do not wish to trade off standard hot plug drive slots for OS install

The RAID controller on the BOSS card has limited set of features. This RAID controller presents the M.2 SATA SSDs as either a non-RAID volume or as a single RAID volume.

Figure 16. Boot Optimized Storage Subsystem (BOSS)

Table 17. BOSS features

Function or feature	Supported
Stripe size supported	64K
Configuration (HII)	Yes
Full initialization	No
Fast initialization	Yes
	NOTE: By default, fast initialization is performed when you create a virtual disk.
Background initialization	No
RAID 0	No
RAID 1	Yes
Single non-RAID	Yes
Dual non-RAID	Yes
Degraded RAID1 and non-RAID	No
Foreign import	Yes
Consistency check	No
Patrol read	No
Load balance	N/A
Rebuild	Yes
	NOTE: You must manually start the rebuild process using HII or using the Marvell CLI.
Auto-rebuild	Yes
	NOTE: Auto-rebuild is performed when the system is powered on only if there is a surviving native virtual disk and another physical disk is present.
Hot spare	No
Change rebuild priority/rate	No
Virtual disk write back/read ahead cache	No

Function or feature	Supported
	NOTE: BOSS controller does not support controller cache.
Battery support	N/A
	NOTE: BOSS controller does not support a battery.
Non-RAID disk cache policy	Yes
	NOTE: OS controlled/Device defaults.
SMART Info	Yes
	NOTE: Use the Marvell CLI to retrieve the SMART information from the drives.
Physical disk hot swap	No
Virtual disk expansion	No
Virtual disk slicing	No
Virtual disk migration	Yes
	NOTE: On new controller, virtual disk must be Imported from HII before presented to OS.
Split mirror	No
	NOTE: System required to shutdown and migrate one physical disk to another system and continue rebuild.
Non-RAID migration	Yes
BIOS configuration utility (Ctrl-M)	No
Add on driver for data path (OS device driver)	No
	NOTE: Console Windows driver or Linux library is required for management purposes only.
4K native drive support	No
TRIM and UNMAP virtual disk	No
TRIM and UNMAP Non-RAID physical disk	Yes
Self-encrypting drives(SED) support	No
Cryptographic erase (sanitize)	Yes
	NOTE: If drive supports SANITIZE Crypto Erase. No other encryption support from controller or drive.

Optical drives

The PowerEdge R940xa system supports one optional slim SATA DVD-ROM drive or DVD +/-RW drive.

NOTE: DVD devices support only data.

External storage

Table 18. External storage device types

Device Type	Description
External Tape	Supports connection to external USB tape products
NAS/IDM appliance software	Supports NAS software stack
JBOD	Supports connection to 12Gb MD-series JBODs

Tape drives

The PowerEdge R940xa does not support internal tape drives. However, external tape drives are supported. The supported external tape drives are as mentioned below:

- External RD1000 USB
- External LTO-5, LTO-6,LTO-7 and 6 Gb SAS tape drives
- 114X rack mount chassis with LTO-5, LTO-6, and LTO-7 6 Gb SAS tape drives
- TL1000 with LTO-5, LTO-6, and LTO-7 6 Gb SAS tape drives
- TL2000 with LTO-5, LTO-6, and LTO-7 6 Gb SAS tape drives
- TL2000 with LTO-5, LTO-6, and LTO-7 8Gb FC tape drives
- TL4000 with LTO-5, LTO-6, and LTO-7 6 Gb SAS tape drives
- TL4000 with LTO-5, LTO-6, and LTO-7 8Gb FC tape drives
- ML6000 with LTO-5, LTO-6, 6 Gb SAS tape drives
- ML6000 with LTO-5, LTO-6, LTO-7 8Gb FC tape drives

Ports and connectors specifications

USB ports

The PowerEdge R940xa system supports:

- Two USB 2.0-compliant ports on the front of the system
- One internal USB 3.0-compliant port
- One optional USB 3.0-compliant port on the front of the system

  NOTE: The USB 3.0 port is supported in the 8x2.5-inch configuration only.
- One micro USB 2.0-compliant port in the front of the system for iDRAC Direct

  NOTE: The micro USB 2.0 compliant port on the front of the system can only be used as an iDRAC Direct or a management port.
- Two USB 3.0-compliant ports on the back of the system

NIC ports

The PowerEdge R940xa system 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 10, 100 and 1000 Mbps
- Four RJ-45 ports that support 100 M, 1 G and 10 Gbps
- Four RJ-45 ports, where two ports support maximum of 10 G and the other two ports maximum of 1 G
- Two RJ-45 ports that support up to 1 Gbps and 2 SFP+ ports that support up to 10 Gbps
- Four SFP+ ports that support up to 10 Gbps
- Two SFP28 ports that support up to 25 Gbps

VGA ports

The Video Graphic Array (VGA) port enables you to connect the system to a VGA display. The PowerEdge R940xa system supports two 15-pin VGA ports on the front and back panels.

Serial connector

The PowerEdge R940xa system supports one serial connector on the back panel, which is a 9-pin connector, Data Terminal Equipment (DTE), 16550-compliant.

IDSDM or vFlash module

The PowerEdge R940xa system supports optional Internal Dual SD module (IDSDM) or vFlash module. In 14th generation of PowerEdge servers, IDSDM or vFlash module are combined into a single card module, and are available in these configurations:

- vFlash or
- vFlash and IDSDM

The IDSDM or vFlash module sits in the back of the system, in a Dell-proprietary slot. IDSDM or vFlash module supports three micro SD cards (two cards for IDSDM and one card for vFlash). Micro SD cards capacity for IDSDM are 16, 32, 64 GB while for vFlash the microSD card capacity is 16 GB.

NOTE: There are two dip switches on the IDSDM or vFlash module for write-protection.

NOTE: One IDSDM card slot is dedicated for redundancy.

NOTE: It is recommended to use Dell branded MicroSD cards associated with the IDSDM or vFlash configured systems.

Video specifications

The PowerEdge R940xa system supports integrated Matrox G200eW3 graphics controller with 16 MB of video frame buffer.

Table 19. Supported video resolution options

Resolution	Refresh Rate	Color depth (bits)	Horizontal Freq.	Pixel Clock	Rear Panel	Front Panel	DVO DisplayPort
1024 x 768	60 Hz	8, 16, 32	48.4 kHz	65.0 MHz	Yes	Yes	Yes*
1280 x 800	60 Hz	8, 16, 32	49.7 kHz	83.5 MHz	Yes	Yes	Yes*
1280 x 1024	60 Hz	8, 16, 32	64.0 kHz	108.0 MHz	Yes	TBD	Yes*
1360 x 768	60 Hz	8, 16, 32	47.71 kHz	85.5 MHz	Yes	Yes	Yes*
1440 x 900	60 Hz	8, 16, 32	55.9 kHz	106.5 MHz	Yes	TBD	Yes*
1600 x 900	60 Hz (RB)	8, 16, 32	55.54 kHz	97.75 MHz	Yes	Yes	Yes*
1600 x 1200	60 Hz	8, 16, 32	75.0 kHz	162.0 MHz	TBD	TBD	Yes*
1680 x 1050	60 Hz (RB)	8, 16, 32	64.7 kHz	119.0 MHz	Yes	TBD	Yes*
1920 x 1080	60 Hz	8, 16, 32	67.158 kHz	173.0 MHz	TBD	No	No
1920 x 1200	60 Hz	8, 16, 32	74.556 kHz	193.25 MHz	TBD	No	No

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

Environmental specifications

NOTE: For additional information about environmental measurements for specific system configurations, see Dell.com/environmental_datasheets.

Table 20. Temperature specifications

Temperature	Specifications
Storage	–40°C to 65°C (–40°F to 149°F)
Continuous operation (for altitude less than 950 m or 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 (68°F/h)

Table 21. Relative humidity specifications

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

Table 22. Maximum vibration specifications

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

Table 23. Maximum shock specifications

Maximum shock	Specifications
Operating	Six consecutively executed shock pulses in the positive and negative x, y, and z axes of 6 G for up to 11 ms.
Storage	Six consecutively executed shock pulses in the positive and negative x, y, and z axes (one pulse on each side of the system) of 71 G for up to 2 ms.

Table 24. Maximum altitude specifications

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

Table 25. 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

Table 26. Standard operating temperature specifications

Standard operating temperature	Specifications
Continuous operation (for altitude less than 950 m or 3117 ft)	10°C to 35°C (50°F to 95°F) with no direct sunlight on the equipment.

Expanded operating temperature

Table 27. Expanded operating temperature specifications

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 system can operate continuously in temperatures as low as 5°C and as high as 40°C.

Expanded operating temperature	Specifications
	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 system can operate down to -5°C or up to 45°C for a maximum of 1% of its annual operating hours. For temperatures between 40°C and 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, system 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

- The operating temperature is for a maximum altitude of 950 m for fresh air cooling
- No cold start-ups below 5°C due to hard drive constraints
- Apache Pass DIMM, NVDIMM, PCIeSSD and NVME are not supported
- GPGPU configuration are not supported
- LRDIMM > 32 GB are not supported in x4 socket configurations
- Redundant power supply units are required
- Non Dell qualified peripheral cards and /or peripheral cards greater than 25 W are not supported

Thermal restrictions

Following table lists the configuration required for efficient cooling.

Table 28. Thermal restrictions support matrix

Number of hard drives	Risers	Number of processors	Number of GPUs	Heat sink		Fan type	Shroud	DIMM blank	Processor /DIMM blank	Fan blank
				Up to 205W processor (CPU 1/2)	Up to 205W processor (CPU 3/4)					
24 x 2.5 inch SAS/ SATA + 8 x 2.5 inch SAS/ SATA	12 PCIe (X8 PCIe Riser 1/X8 PCIe Riser 2)	2	N/A	2U height HSK	N/A	Six standard	Standard	Yes (max 22x)	N/A	N/A
24 x 2.5 inch SAS/ SATA + 8 x 2.5 inch SAS/ SATA	12 PCIe (X8 PCIe Riser 1/X8 PCIe Riser 2)	4	N/A	2U height HSK	4U height HSK (L-shape)	Six standard	Standard	Yes (max 44x)	N/A	N/A

Number of hard drives	Risers	Number of processors	Number of GPUs	Heat sink		Fan type	Shroud	DIMM blank	Processor /DIMM blank	Fan blank
				Up to 205W processor (CPU 1/2)	Up to 205W processor (CPU 3/4)					
24 x 2.5 inch SAS/ SATA + 8 x 2.5 inch SAS/ SATA	8 PCIe (X16 PCIe Riser 1/X16 PCIe Riser 2)	2	2	2U height HSK	N/A	Six standard	Remove the GPU shroud	Yes (max 22x)	N/A	N/A
24 x 2.5 inch SAS/ SATA + 8 x 2.5 inch SAS/ SATA	8 PCIe (X16 PCIe Riser 1/X16 PCIe Riser 2)	4	2	2U height HSK	4U height HSK (L-shape)	Six standard	Remove the GPU shroud	Yes (max 44x)	N/A	N/A
24 x 2.5 inch SAS/ SATA + 8 x 2.5 inch SAS/ SATA	8 PCIe (X16 PCIe Riser 1/X16 PCIe Riser 2)	4	4	2U height HSK	4U height HSK (L-shape)	Six standard	Remove the GPU shroud	Yes (max 44x)	N/A	N/A
8 x 2.5 inch SAS/ SATA	12 PCIe (X8 PCIe Riser 1/X8 PCIe Riser 2)	2	N/A	2U height HSK	N/A	Six standard	Standard	Yes (max 22x)	N/A	N/A
8 x 2.5 inch SAS/ SATA	12 PCIe (X8 PCIe Riser 1/X8 PCIe Riser 2)	4	N/A	2U height HSK	4U height HSK (L-shape)	Six standard	Standard	Yes (max 44x)	N/A	N/A
8 x 2.5 inch SAS/ SATA	8 PCIe (X16 PCIe Riser 1/X16 PCIe Riser 2)	2	2	2U height HSK	N/A	Six standard	Remove the GPU shroud	Yes (max 22x)	N/A	N/A
8 x 2.5 inch SAS/ SATA	8 PCIe (X16 PCIe Riser 1/X16 PCIe Riser 2)	4	2	2U height HSK	4U height HSK (L-shape)	Six standard	Remove the GPU shroud	Yes (max 44x)	N/A	N/A
8 x 2.5 inch SAS/ SATA	8 PCIe (X16 PCIe Riser 1/X16 PCIe Riser 2)	4	4	2U height HSK	4U height HSK (L-shape)	Six standard	Remove the GPU shroud	Yes (max 44x)	N/A	N/A

Ambient temperature limitations

The following table lists configurations that require ambient temperature less than 30°C:

NOTE: The ambient temperature limit must be adhered to ensure proper cooling and to avoid excess CPU throttling, which may impact system performance.

Table 29. Configuration-based ambient temperature restrictions

System	Backplane	CPU Thermal Design Power (TDP)	CPU heat sink	Fan type	GPU	Ambient restriction
PowerEdge R940xa	24 x 2.5 inch SAS/SATA + 8 x 2.5 inch SAS/SATA	Up to 205 W	2U height HSK + 4U height HSK	Standard fan	≥1 double-width/ single-width	30°C
	8 x 2.5 inch SAS/SATA	Up to 205 W	2U height HSK + 4U height HSK	Standard fan	≥1 double-width/ single-width	30°C

Particulate and gaseous contamination specifications

The following table 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 may need to rectify the environmental conditions. Remediation of environmental conditions is the responsibility of the customer.

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: The ISO Class 8 condition applies to data center environments only. This air filtration requirement does 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. 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.

Table 31. Gaseous contamination specifications

Gaseous contamination	Specifications
Copper coupon corrosion rate	<300 Å/month per Class G1 as defined by ANSI/ISA71.04-2013.
Silver coupon corrosion rate	<200 Å/month as defined by ANSI/ISA71.04-2013.

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

3

Documentation resources

This section provides information about the documentation resources for your system.

Table 32. Additional documentation resources for your system

Task	Document	Location
Setting up your system	For more information about installing and securing the system into a rail, see the rail documentation included with your rail solution.	Dell.com/poweredgemanuals
	For information about setting up and turning on the system, see the *Getting Started Guide* document that is shipped with your system.	Dell.com/poweredgemanuals
Configuring your system	For information about the iDRAC features, configuring and logging in to iDRAC, and managing your system remotely, see the Integrated Dell Remote Access Controller User's Guide.	Dell.com/idracmanuals
	For information about installing the operating system, see the operating system documentation.	Dell.com/operatingsystemmanuals
	For information about understanding Remote Access Controller Admin (RACADM) subcommands and supported RACADM interfaces, see the RACADM Command Line Reference Guide for iDRAC.	Dell.com/idracmanuals
	For information about device drivers and to obtain the latest device drivers for your system, see the Drivers & Downloads section on the Dell Support website. For information about updating drivers and firmware, see the Methods to download firmware and drivers section in this document.	Dell.com/support/drivers
	For more information about rack rails, see rack rails	Rack rails in the PowerEdge R940xa Field Service Manual
Managing your system	For information about systems management software offered by Dell, see the Dell OpenManage Systems Management Overview Guide.	Dell.com/openmanagemanuals
	For information about setting up, using, and troubleshooting OpenManage, see the Dell OpenManage Server Administrator User's Guide.	Dell.com/openmanagemanuals
	For information about installing, using, and troubleshooting Dell OpenManage Essentials, see the Dell OpenManage Essentials User's Guide.	Dell.com/openmanagemanuals

Task	Document	Location
	For information about installing and using Dell SupportAssist, see the Dell EMC SupportAssist Enterprise User's Guide.	Dell.com/serviceabilitytools
	For understanding the features of Dell Lifecycle Controller, see the Dell Lifecycle Controller User's Guide.	Dell.com/idracmanuals
	For information about partner programs enterprise systems management, see the OpenManage Connections Enterprise Systems Management documents.	Dell.com/openmanagemanuals
Working with the Dell PowerEdge RAID controllers	For information about understanding the features of the Dell PowerEdge RAID controllers (PERC), Software RAID controllers, or BOSS card and deploying the cards, see the Storage controller documentation.	Dell.com/storagecontrollermanuals
Understanding event and error messages	For information about checking the event and error messages generated by the system firmware and agents that monitor system components, see the Dell Event and Error Messages Reference Guide.	Dell.com/openmanagemanuals > OpenManage software
Troubleshooting your system	For information about identifying and troubleshooting the PowerEdge server issues, see the Server Troubleshooting Guide.	Dell.com/poweredgemanuals

To view the document listed in the documentation resources table:

1 Click the documentation link provided in the Location column in the table.
2 In the Search all PowerEdge field, type the product name and model number.

NOTE: To locate the product name and model, see the front of your system.

3 On the displayed product page, click Manuals & documents.

4

Getting help

Topics:

- Contacting Dell
- Documentation feedback
- Accessing system information by using QRL
- Receiving automated support with SupportAssist

Contacting Dell

Dell provides several online and telephone based support and service options. If you do not have an active internet connection, you can find contact information about your purchase invoice, packing slip, bill, or Dell product catalog. Availability varies by country and product, and some services may not be available in your area. To contact Dell for sales, technical assistance, or customer service issues:

1. Go to Dell.com/support.
2. Select your country from the drop-down menu on the lower right corner of the page.
3. For customized support:
   a. Enter your system Service Tag in the Enter your Service Tag field.
   b. Click Submit.
      The support page that lists the various support categories is displayed.
4. For general support:
   a. Select your product category.
   b. Select your product segment.
   c. Select your product.
      The support page that lists the various support categories is displayed.
5. For contact details of Dell Global Technical Support:
   a. Click Global Technical Support.
   b. The Contact Technical Support page is displayed with details to call, chat, or e-mail the Dell Global Technical Support team.

Documentation feedback

You can rate the documentation or write your feedback on any of our Dell EMC documentation pages and click Send Feedback to send your feedback.

Accessing system information by using QRL

You can use the Quick Resource Locator (QRL) to get immediate access to the information about your system. The QRL is located on the top of the system cover and provides access to generic information about your system. If you want to access information specific to the system service tag, such as configuration and warranty, you can access QR code located on the system Information tag.
Ensure that your smart phone or tablet has the QR code scanner installed.

The QRL includes the following information about your system:

- How-to videos
- Reference materials, including the Owner's Manual, LCD diagnostics, and mechanical overview

- A direct link to Dell to contact technical assistance and sales teams

1. Go to Dell.com/QRL and navigate to your specific product or
2. Use your smart phone or tablet to scan the model-specific Quick Resource (QR) code on your PowerEdge system or in the Quick Resource Locator section.

Quick Resource Locator for PowerEdge R940xa system

Figure 17. Quick Resource Locator for PowerEdge R940xa system

Receiving automated support with SupportAssist

Dell EMC SupportAssist is an optional Dell EMC EMC Services offering that automates technical support for your Dell EMC server, storage, and networking devices. By installing and setting up a SupportAssist application in your IT environment, you can receive the following benefits:

- Automated issue detection — SupportAssist monitors your Dell EMC devices and automatically detects hardware issues, both proactively and predictively.
- Automated case creation — When an issue is detected, SupportAssist automatically opens a support case with Dell EMC Technical Support.
- Automated diagnostic collection — SupportAssist automatically collects system state information from your devices and uploads it securely to Dell EMC. This information is used by Dell EMC Technical Support to troubleshoot the issue.
- Proactive contact — A Dell EMC Technical Support agent contacts you about the support case and helps you resolve the issue.

The available benefits vary depending on the Dell EMC Service entitlement purchased for your device. For more information about SupportAssist, go to Dell EMC.com/SupportAssist.

Appendix. Supported processor for R940xa

Processor	SKU type	Clock (GHz)	Core	TDP
6134	Gold	3.2	8	130W
6136	Gold	3	12	150W
8160M	Platinum	2.1	24	150W
5118	Gold	2.3	12	105W
6126	Gold	2.6	12	125W
6142M	Gold	2.6	16	150W
6146	Gold	3.2	12	165W
8168	Platinum	2.7	24	205W
6132	Gold	2.6	14	140W
6150	Gold	2.7	18	165W
6130	Gold	2.1	16	125W
8176	Platinum	2.1	28	165W
8170	Platinum	2.1	26	165W
6148	Gold	2.4	20	150W
6140M	Gold	2.3	18	140W
8180	Platinum	2.5	28	205W
6140	Gold	2.3	18	140W
8168	Platinum	2.7	24	205W
8170M	Platinum	2.1	26	165W
6128	Gold	3.4	6	115W
5120	Gold	2.2	14	105W
6154	Gold	3	18	200W
6152	Gold	2.1	22	140W
8180M	Platinum	2.5	28	205W
6138	Gold	2	20	125W
6134M	Gold	3.2	8	130W
6142	Gold	2.6	16	150W
5115	Gold	2.4	10	85W
8176M	Platinum	2.1	28	165W
5122	Gold	3.6	4	105W
8164	Platinum	2	26	150W
6144	Gold	3.6	8	165W
8153	Platinum	2	16	125W
8160	Platinum	2.1	24	150W