Dell PowerEdge R7725

Technical Guide

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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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PowerEdge R7725 system configurations and features

The PowerEdge R7725 system is a 2U server that supports:

- Two 5th Generation AMD EPYC 9005 Series processors with up to 192 cores per processor.
- Optional Direct Liquid Cooling (DLC) for required CPU SKU and/or configurations
- 24 DIMM slots
- Two redundant AC or DC power supply units
- No backplane configuration
- Up to 8 x 2.5-inch Universal
- Up to 12 x 3.5-inch SAS/SATA
- Up to 16 x 2.5-inch SAS/SATA
- Up to 24 x 2.5-inch SAS/SATA
- Up to 16 x 2.5-inch SAS/SATA + 8 x U.2 or 2.5-inch NVMe RAID
- Up to 8 x EDSFF E3.S Gen5 NVMe
- Up to 16 x EDSFF E3.S Gen5 NVMe
- Up to 32 x EDSFF E3.S Gen5 NVMe
- Up to 40 x EDSFF E3.S Gen5 NVMe

NOTE: For more information about how to hot swap NVMe PCIe SSD device, see the *Dell Express Flash NVMe PCIe SSD User's Guide* at Dell Support page **> Browse all products** > **Infrastructure** > **Data Center Infrastructure** > **Storage Adapters & Controllers** > **Dell PowerEdge Express Flash NVMe PCIe SSD** > **Select This Product** > **Documentation** > **Manuals and Documents**.

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

NOTE: The system board is known as the Host Processor Module (HPM) board in this document.

CAUTION: Do not install GPUs, network cards, or other PCIe devices on your system that are not validated and tested by Dell. Damage caused by unauthorized and invalidated hardware installation will null and void the system warranty.

Topics:

- Key workloads
- New technologies

Key workloads

The Dell PowerEdge R7725 offers powerful performance in a purpose-built, cyber resilient, mainstream server. Ideal for:

- Virtualization
- VDI
- High Performance Computing (HPC)

New technologies

The PowerEdge R7725 can handle demanding workloads and applications, such as data warehouse, eCommerce, databases, and high-performance computing (HPC).

Table 1. New technologies

Technology	Detailed Description
AMD EPYC 5th Generation 9005 Series	Core count: Up to 192 cores for Zen5 processor
	CXL 2.0: supports Type 3 memory **NOTE:** The AMD 9005 series CPUs support CXL 2.0 devices Type 1, Type 2, and Type 3, whereas the PowerEdge R7725 supports only CXL Type 3 memory devices.
	PCIe link encryption and PCIe hotplug port reconfiguration
	Maximum TDP: 500 W
6400 MT/s DDR5 Memory	Up to 12 channels per CPU and 24 DIMMs in total
	Supports RDIMM with ECC up to 6400 MT/s.
PCIe Gen	Gen5 slots
PCIe Slot	Up to eight PCIe slots with x16 lanes
Rear I/O	Rear OCP FLOP with DC-MHS compliant
	BOSS-N1 DC-MHS
FPGA PESTI	Support payload data of Front PERC 12 or PERC 13 and BOSS N1-DC-MHS
DC-SCM	Datacenter-ready Secure Control Module
Software RAID	N/A
Power supplies	M-CRPS 73.5 mm and 60 mm support

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Product comparison

Table 2. Comparison of PowerEdge R7725 and R7625

Feature	PowerEdge R7725	PowerEdge R7625
Processor	Two 5th Generation AMD EPYC 9005 Series processors, with up to 192 cores for the Zen5 processor	Two AMD® EPYC 4th Generation Genoa (SP5) processors, with up to 128 cores for the Zen4c processor
Chipset	AMD chipset	AMD chipset
Accelerators	Up to two 450 W double-width GPUs or six single-width GPUs	Up to two double-widths 300 W, or six single-width 75 W GPUs
Memory		
DIMM speed	Up to 6400 MT/s	Up to 4800 MT/s
Memory type	RDIMM	RDIMM
Memory module slots	24 DDR5 DIMM slots	24 DDR5 DIMM slots
	NOTE: Supports registered ECC DDR5 DIMMs only.	**NOTE:** Supports registered ECC DDR5 DIMMs only.
Storage		
Front bays	• No backplane configuration • Up to 8 x 2.5-inch Universal • Up to 12 x 3.5-inch SAS/SATA • Up to 16 x 2.5-inch SAS/SATA • Up to 24 x 2.5-inch SAS/SATA • Up to 16 x 2.5-inch SAS/SATA + 8 x 2.5-inch U.2 NVMe • Up to 8 x EDSFF E3.S Gen5 NVMe • Up to 16 x EDSFF E3.S Gen5 NVMe • Up to 32 x EDSFF E3.S Gen5 NVMe • Up to 40 x EDSFF E3.S Gen5 NVMe	• Up to 8 x 3.5-inch SAS4/SATA max 160 TB • Up to 12 x 3.5-inch SAS/SATA max 240 TB • Up to 8 x 2.5-inch SAS/SATA/NVMe max 122.88 TB • Up to 16 x 2.5-inch SAS/SATA/NVMe max 245.76 TB • Up to 24 x 2.5-inch SAS/SATA/NVMe max 368.64 TB • Up to 8 x EDSFF E3.S Gen5 NVMe max 61.44 TB • Up to 16 x EDSFF E3.S Gen5 NVMe max 122.88 TB • Up to 32 x EDSFF E3.S Gen5 NVMe max 245.76 TB
Rear bays	N/A	• Up to 2 x 2.5-inch SAS4/SATA/NVMe max 30.72 TB • Up to 4 x 2.5-inch SAS4/SATA/NVMe max 61.44 TB • Up to 4 x EDSFF E3.S Gen5 NVMe max 30.72 TB
Storage controllers		
Internal controllers	• PERC H365i • PERC H965i • PERC H975i	HBA355i, H355, H755, H755N, H965i, HBA465i
External controllers	• HBA465e • H965e	HBA355e, HBA465e, H965e

Table 2. Comparison of PowerEdge R7725 and R7625 (continued)

Feature	PowerEdge R7725	PowerEdge R7625
Software RAID	N/A	S160
Internal boot	Boot Optimized Storage Subsystem (BOSS-N1 DC-MHS)	Boot Optimized Storage Subsystem (BOSS): HW RAID 2 x M.2 SSDs 480 GB or 960 GB
	Internal USB	Internal USB
Power supply	• 3200 W Titanium 200-240 VAC or 240 HVDC, hot swap redundant • 3200 W Titanium 277 VAC or HVDC • 2400 W Titanium 100-240 VAC or 240 HVDC • 1800 W Titanium 200-240 VAC or 240 HVDC* • 1500 W Titanium 100-240 VAC or 240 VDC, hot swap redundant • 1500 W Titanium 277 VAC or HVDC • 1400 W (-48)-(-60) VDC • 1100 W Titanium 100-240 VAC or 240 VDC, hot swap redundant • 1100 W Platinum 100-240 VAC or 240 VDC, hot swap redundant • 800 W Titanium 100-240 VAC or 240 VDC, hot swap redundant • 800 W Platinum 100-240 VAC or 240 VDC, hot swap redundant	• 3200 W Titanium 277 VAC or 336 VDC • 2800 W Titanium 200—240 VAC or 240 HVDC • 2400 W Platinum 100—240 VAC or 240 HVDC • 1800 W Titanium 200—240 VAC or 240 HVDC • 1400 W Titanium 100—240 VAC or 240 HVDC • 1400 W Platinum 100—240 VAC or 240 HVDC • 1400 W Titanium 277 VAC or 336 HVDC • 1100 W Titanium 100—240 VAC or 240 HVDC • 1100 W LVDC -48—-60 VDC • 800 W Platinum 100—240 VAC or 240 HVDC Hot swap PSUs with full redundancy.
Cooling Options	• Air cooling • Direct Liquid Cooling (DLC)	• Air Cooling • Optional Direct Liquid Cooling (DLC)
Fans	Up to six High Performance Silver/ High Performance Gold/High Performance Platinum hot plug fans	Up to six High performance Silver/High Performance Gold hot plug fans
Ports		
Network options	• 1 Gb dedicated BMC Ethernet port • 2 x OCP NIC 3.0 card	• 2 x 1 GbE LOM card (optional) • 1 x OCP card 3.0 (optional) **NOTE:** The system allows either LOM card or OCP card or both to be installed in the system.
Front ports	• 1 x USB 2.0 (optional LCP KVM) • 1 x USB 2.0 (HOST/BMC Direct) • 1 x Mini-Display port (optional LCP KVM)	• 1 x Dedicated iDRAC Micro-USB • 1 x USB 2.0 • 1 x VGA
Rear ports	• 1 Gb dedicated BMC Ethernet port • 2 x USB 3.1 • 1 x VGA	• 1 x USB 2.0 • 1 x iDRAC Direct/Ethernet port • 1 x USB 3.0 • 1 x VGA (optional for liquid cooling configuration)
Internal ports	1 x USB 3.1 (optional)	1 x USB 3.0 (optional)
Slots		
PCIe	Up to eight PCIe Gen5 slots	Up to four PCIe Gen5 slots
Form factor	2U rack server	2U rack server

Table 2. Comparison of PowerEdge R7725 and R7625 (continued)

Feature	PowerEdge R7725	PowerEdge R7625
Dimensions and weight		
Height	86.8 mm (3.42 inches)	86.8 mm (3.41 inches)
Width	482.0 mm (18.98 inches)	482 mm (18.97 inches)
Depth	802.4 mm (31.59 inches) with bezel	772.13 mm (30.39 inches) with bezel
	801.51 mm (31.55 inches) without bezel	758.29 mm (29.85 inches) without bezel
Weight	Max 25.1 kg (55.34 lb)	Max 34.4 kg (75.84 lb)
Bezel	Optional Metal Bezel	Optional LCD bezel or security bezel
System management		
Embedded management	• iDRAC10 • iDRAC Direct • iDRAC RESTful API with Redfish • Racadm CLI • Quick Sync 2 wireless module	• iDRAC9 • iDRAC Direct • iDRAC RESTful API with Redfish • iDRAC Service Manual • Quick Sync 2 wireless module
OpenManage console	• OpenManage Enterprise (OME) • OME Power Manager • OME Services • OME Update Manager • OME APEX AIOps Observability • OME Integration for VMware vCenter (with VMware Aria Operations) • OME Integration for Microsoft System Center • OpenManage Integration for Windows Admin Center	• OpenManage Enterprise • OpenManage Power Manager plug-in • OpenManage Services plug-in • OpenManage Update Manager plug-in
Mobility	OpenManage Mobile	OpenManage Mobile
Tools	IPMI	IPMI
Change Management	• Dell Repository Manager • Dell System Update • Enterprise Catalogs • Server Update Utility (SUU)	N/A
OpenManage Integrations	• Red Hat Ansible Collections • Terraform Providers	• BMC True sight • Microsoft System Center • OpenManage Integration with ServiceNow • Red Hat Ansible Modules • Terraform Providers • VMware vCenter and vRealize Operations Manager
Security	• AMD Secure Encrypted Virtualization (SEV) • AMD Secure Memory Encryption (SME) • Cryptographically signed firmware • Data at Rest Encryption (SEDs with local or external key mgmt) • Secure Boot	• AMD Secure Encrypted Virtualization (SEV) • AMD Secure Memory Encryption (SME) • Cryptographically signed firmware • Data at Rest Encryption (SEDs with local or external key mgmt • Secure Boot

Table 2. Comparison of PowerEdge R7725 and R7625 (continued)

Feature	PowerEdge R7725	PowerEdge R7625
	• Secured Component Verification (Hardware integrity check) • Secure Erase • Silicon Root of Trust • System Lockdown (requires iDRAC10 Enterprise or Datacener) • TPM 2.0 FIPS, CC-TCG certified • Chassis Intrusion Detection	• Secured Component Verification (Hardware integrity check) • Secure Erase • Silicon Root of Trust • System Lockdown (requires iDRAC9 Enterprise or Datacenter) • TPM 2.0 FIPS, CC-TCG certified, TPM 2.0 China NationZ • Chassis Intrusion Detection
Operating System and Hypervisors	• Canonical Ubuntu Server LTS • Microsoft Windows Server with Hyper-V • RedHat Enterprise Linux • VMware ESXi • SUSE Linux Enterprise Server For specifications and interoperability details, see Dell Enterprise Operating Systems on Servers, Storage, and Networking page at OSsupport	• Canonical Ubuntu Server LTS • Microsoft Windows Server with Hyper-V • Red Hat Enterprise Linux • SUSE Linux Enterprise Server • VMware ESXi For specifications and interoperability details, see Dell Enterprise Operating Systems on Servers, Storage, and Networking page at OSsupport

NOTE: This document provides a comprehensive list of product features. However, features marked with an asterisk (*) may not be available at launch but introduced in future updates. Please note that this document does not confirm the availability or release timeline of any feature. For the most accurate and up-to-date information on feature availability, please refer to the product configurator page on dell.com.

NOTE: *Feature not available at product launch in November,2025. Please refer to the product configurator page on Dell.com to confirm feature availability.

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Chassis views and features

Topics:

- System configurations - front view for PowerEdge R7725 system
- System configurations - rear view for PowerEdge R7725 system
- System configurations - inside view for PowerEdge R7725 system

System configurations - front view for PowerEdge R7725 system



Figure 1. Front view of no backplane configuration

Table 3. Features are available on the front of the system

Item	Ports, panels, and slots	Icon	Description
1	Left Control Panel (LCP) - Secondary	N/A	Contains the USB 2.0 Type-A port (optional LCP - Secondary KVM) and the Mini DisplayPort (optional LCP - Secondary KVM). ● USB 2.0 Type-A port (optional LCP - Secondary KVM): This port is USB 2.0-compliant with optional LCP - Secondary KVM functions. ● Mini DisplayPort: Enables you to connect a display device to the system. **NOTE:** Use a certified Mini DisplayPort to DisplayPort cable complying with VESA DisplayPort standards for video output with a monitor.

Table 3. Features are available on the front of the system (continued)

Item	Ports, panels, and slots	Icon	Description
			NOTE: Mini DisplayPort to VGA or Mini DisplayPort to HDMI adapters are not recommended.
2	Blank panel	N/A	Blank panel to allow air flow for thermal efficiency.
3	Right Control Panel (RCP) - Primary	N/A	Contains the power button, USB 2.0 Type-C port (HOST/BMC Direct), and the system identification button.
4	Express service tag	N/A	The Express service tag is a slide-out label panel that contains system information such as Service Tag, NIC, MAC address, and so on. If you have opted for the secure default access to iDRAC, the Express service tag also contains the iDRAC secure default password.

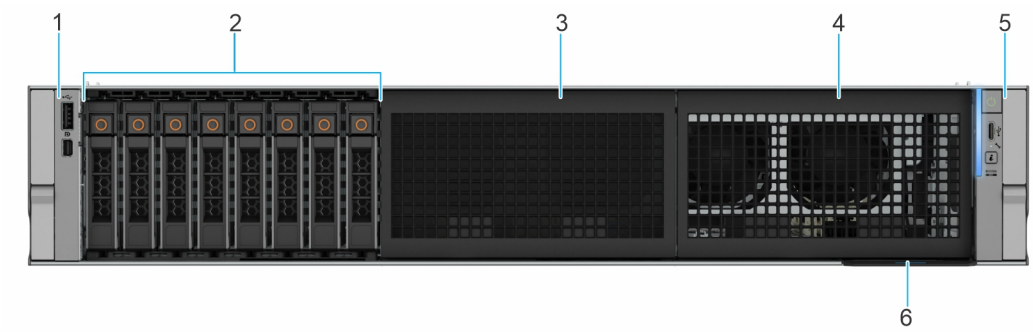


Figure 2. Front view of the 8 x 2.5-inch Universal

Table 4. Features are available on the front of the system

Item	Ports, panels, and slots	Icon	Description
1	Left Control Panel (LCP) - Secondary	N/A	Contains the USB 2.0 Type-A port (optional LCP - Secondary KVM) and the Mini DisplayPort (optional LCP KVM). • USB 2.0 Type-A port (optional LCP - Secondary KVM): This port is USB 2.0-compliant with optional LCP - Secondary KVM functions. • Mini DisplayPort: Enables you to connect a display device to the system. **NOTE:** Use a certified Mini DisplayPort to

Table 4. Features are available on the front of the system (continued)

Item	Ports, panels, and slots	Icon	Description
			DisplayPort cable complying with VESA DisplayPort standards for video output with a monitor. **NOTE:** Mini DisplayPort to VGA or Mini DisplayPort to HDMI adapters are not recommended.
2	Drive	N/A	Enables you to install drives that are supported on your system.
3	Blank panel	N/A	Blank panel to allow air flow for thermal efficiency.
4	Blank panel	N/A	Blank panel to allow air flow for thermal efficiency.
5	Right Control Panel (RCP) - Primary	N/A	Contains the power button, USB 2.0 Type-C port (HOST/BMC Direct), and the system identification button.
6	Express service tag	N/A	The Express service tag is a slide-out label panel that contains system information such as Service Tag, NIC, MAC address, and so on. If you have opted for the secure default access to iDRAC, the Express service tag also contains the iDRAC secure default password.



Figure 3. Front view of the 12 x 3.5-inch SATA/SAS

Table 5. Features are available on the front of the system

Item	Ports, panels, and slots	Icon	Description
1	Left Control Panel (LCP) - Secondary	N/A	Contains the USB 2.0 Type-A port (optional LCP - Secondary KVM) and the Mini

Table 5. Features are available on the front of the system (continued)

Item	Ports, panels, and slots	Icon	Description
			DisplayPort (optional LCP - Secondary KVM). • USB 2.0 Type-A port (optional LCP - Secondary KVM): This port is USB 2.0-compliant with optional LCP - Secondary KVM functions. • Mini DisplayPort: Enables you to connect a display device to the system. **NOTE:** Use a certified Mini DisplayPort to DisplayPort cable complying with VESA DisplayPort standards for video output with a monitor. **NOTE:** Mini DisplayPort to VGA or Mini DisplayPort to HDMI adapters are not recommended.
2	Drive	N/A	Enables you to install drives that are supported on your system.
3	Right Control Panel (RCP) - Primary	N/A	Contains the power button, USB 2.0 Type-C port (HOST/BMC Direct), and the system identification button.
4	Express service tag	N/A	The Express service tag is a slide-out label panel that contains system information such as Service Tag, NIC, MAC address, and so on. If you have opted for the secure default access to iDRAC, the Express service tag also contains the iDRAC secure default password.

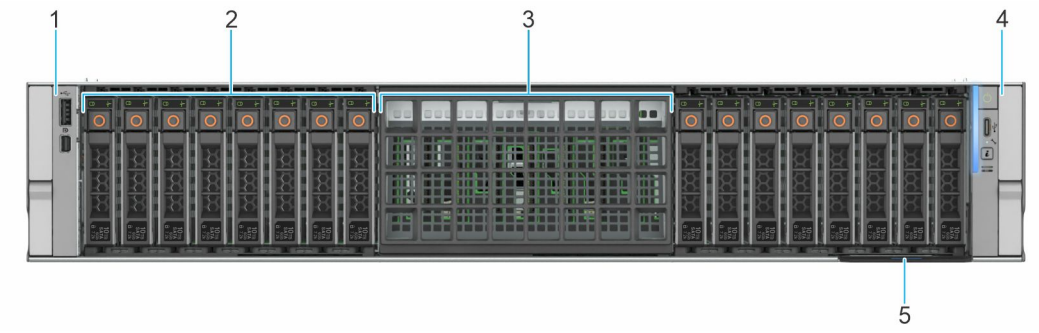


Figure 4. Front view of the 16 x 2.5-inch SAS/SATA

Table 6. Features are available on the front of the system

Item	Ports, panels, and slots	Icon	Description
1	Left Control Panel (LCP) - Secondary	N/A	Contains the USB 2.0 Type-A port (optional LCP - Secondary KVM) and the Mini DisplayPort (optional LCP - Secondary KVM). • USB 2.0 Type-A port (optional LCP - Secondary KVM): This port is USB 2.0-compliant with optional LCP - Secondary KVM functions. • Mini DisplayPort: Enables you to connect a display device to the system. **NOTE:** Use a certified Mini DisplayPort to DisplayPort cable complying with VESA DisplayPort standards for video output with a monitor. **NOTE:** Mini DisplayPort to VGA or Mini DisplayPort to HDMI adapters are not recommended.
2	Drive	N/A	Enables you to install drives that are supported on your system.
3	Blank panel	N/A	Blank panel to allow air flow for thermal efficiency.
4	Right Control Panel (RCP) - Primary	N/A	Contains the power button, USB 2.0 Type-C port (HOST/BMC Direct), and the system identification button.
5	Express service tag	N/A	The Express service tag is a slide-out label panel that contains system information such as Service Tag, NIC, MAC address, and so on. If you have opted for the secure default access to iDRAC, the Express service tag also contains the iDRAC secure default password.

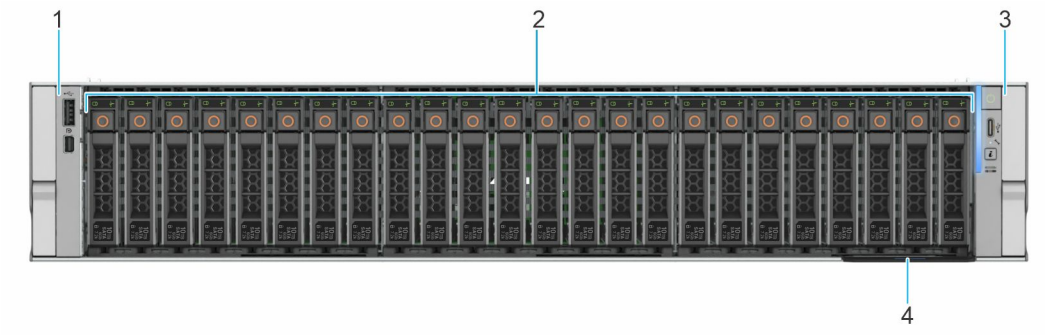


Figure 5. Front view of the 24 x 2.5-inch SAS/SATA

Table 7. Features are available on the front of the system

Item	Ports, panels, and slots	Icon	Description
1	Left Control Panel (LCP) - Secondary	N/A	Contains the USB 2.0 Type-A port (optional LCP - Secondary KVM) and the Mini DisplayPort (optional LCP - Secondary KVM). • USB 2.0 Type-A port (optional LCP - Secondary KVM): This port is USB 2.0-compliant with optional LCP - Secondary KVM functions. • Mini DisplayPort: Enables you to connect a display device to the system. **NOTE:** Use a certified Mini DisplayPort to DisplayPort cable complying with VESA DisplayPort standards for video output with a monitor. **NOTE:** Mini DisplayPort to VGA or Mini DisplayPort to HDMI adapters are not recommended.
2	Drive	N/A	Enables you to install drives that are supported on your system.
3	Right Control Panel (RCP) - Primary	N/A	Contains the power button, USB 2.0 Type-C port (HOST/BMC Direct), and the system identification button.
4	Express service tag	N/A	The Express service tag is a slide-out label panel that contains system information such as Service Tag, NIC, MAC address, and so on. If you have opted for the secure default access to iDRAC,

Table 7. Features are available on the front of the system (continued)

Item	Ports, panels, and slots	Icon	Description
			the Express service tag also contains the iDRAC secure default password.

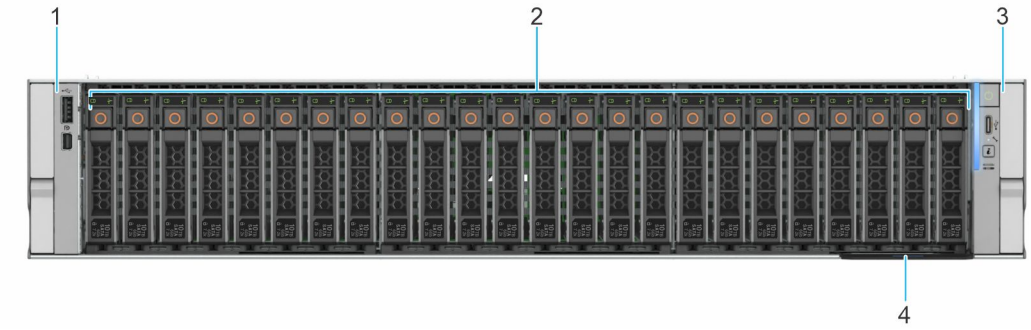


Figure 6. Front view of 16 x 2.5-inch drives + 8 x 2.5-inch U.2 NVMe drive system

Table 8. Features are available on the front of the system

Item	Ports, panels, and slots	Icon	Description
1	Left Control Panel (LCP) - Secondary	N/A	Contains the USB 2.0 Type-A port (optional LCP - Secondary KVM) and the Mini DisplayPort (optional LCP - Secondary KVM). • USB 2.0 Type-A port (optional LCP - Secondary KVM): This port is USB 2.0-compliant with optional LCP - Secondary KVM functions. • Mini DisplayPort: Enables you to connect a display device to the system. **NOTE:** Use a certified Mini DisplayPort to DisplayPort cable complying with VESA DisplayPort standards for video output with a monitor. **NOTE:** Mini DisplayPort to VGA or Mini DisplayPort to HDMI adapters are not recommended.
2	Drive	N/A	Enables you to install drives that are supported on your system.
3	Right Control Panel (RCP) - Primary	N/A	Contains the power button, USB 2.0 Type-C port (HOST/BMC Direct), and the system identification button.

Table 8. Features are available on the front of the system (continued)

Item	Ports, panels, and slots	Icon	Description
4	Express service tag	N/A	The Express service tag is a slide-out label panel that contains system information such as Service Tag, NIC, MAC address, and so on. If you have opted for the secure default access to iDRAC, the Express service tag also contains the iDRAC secure default password.

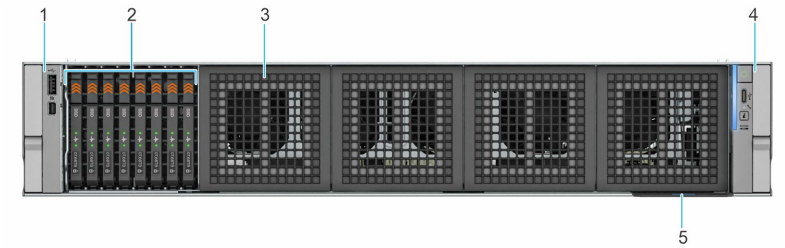


Figure 7. Front view of 8 x EDSFF E3.S NVMe system

Table 9. Features are available on the front of the system

Item	Ports, panels, and slots	Icon	Description
1	Left Control Panel (LCP) - Secondary	N/A	Contains the USB 2.0 Type-A port (optional LCP - Secondary KVM) and the Mini DisplayPort (optional LCP - Secondary KVM). • USB 2.0 Type-A port (optional LCP - Secondary KVM): This port is USB 2.0-compliant with optional LCP - Sedondary KVM functions. • Mini DisplayPort: Enables you to connect a display device to the system. **NOTE:** Use a certified Mini DisplayPort to DisplayPort cable complying with VESA DisplayPort standards for video output with a monitor. **NOTE:** Mini DisplayPort to VGA or Mini DisplayPort to HDMI adapters are not recommended.
2	Drive	N/A	Enables you to install drives that are supported on your system.

Table 9. Features are available on the front of the system (continued)

Item	Ports, panels, and slots	Icon	Description
3	Blank Panel	N/A	Enables you to install drives that are supported on your system.
4	Right Control Panel (RCP) - Primary	N/A	Contains the power button, USB 2.0 Type-C port (HOST/BMC Direct), and the system identification button.
5	Express service tag	N/A	The Express service tag is a slide-out label panel that contains system information such as Service Tag, NIC, MAC address, and so on. If you have opted for the secure default access to iDRAC, the Express service tag also contains the iDRAC secure default password.

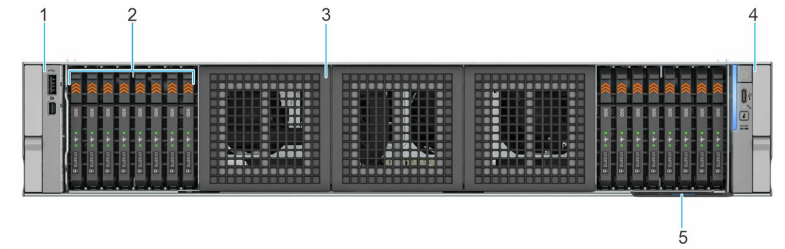


Figure 8. Front view of 16 x EDSFF E3.S NVMe system

Table 10. Features are available on the front of the system

Item	Ports, panels, and slots	Icon	Description
1	Left Control Panel (LCP) - Secondary	N/A	Contains the USB 2.0 Type-A port (optional LCP - Secondary KVM) and the Mini DisplayPort (optional LCP - Secondary KVM). • USB 2.0 Type-A port (optional LCP - Secondary KVM): This port is USB 2.0-compliant with optional LCP - Secondary KVM functions. • Mini DisplayPort: Enables you to connect a display device to the system. **NOTE:** Use a certified Mini DisplayPort to DisplayPort cable complying with VESA DisplayPort standards for video output with a monitor. **NOTE:** Mini DisplayPort to VGA

Table 10. Features are available on the front of the system (continued)

Item	Ports, panels, and slots	Icon	Description
			or Mini DisplayPort to HDMI adapters are not recommended.
2	Drive	N/A	Enables you to install drives that are supported on your system.
3	Blank Panel	N/A	Enables you to install drives that are supported on your system.
4	Right Control Panel (RCP) - Primary	N/A	Contains the power button, USB 2.0 Type-C port (HOST/BMC Direct), and the system identification button.
5	Express service tag	N/A	The Express service tag is a slide-out label panel that contains system information such as Service Tag, NIC, MAC address, and so on. If you have opted for the secure default access to iDRAC, the Express service tag also contains the iDRAC secure default password.

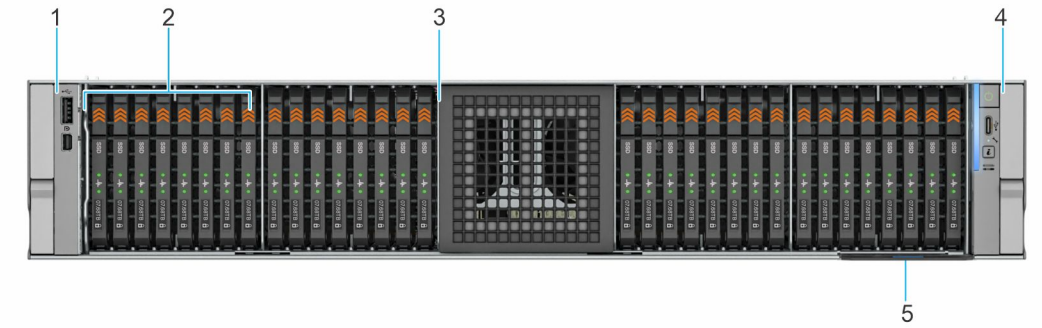


Figure 9. Front view of the 32 x EDSFF E3.S Gen5 NVMe

Table 11. Features are available on the front of the system

Item	Ports, panels, and slots	Icon	Description
1	Left Control Panel (LCP) - Secondary	N/A	Contains the USB 2.0 Type-A port (optional LCP - Secondary KVM) and the Mini DisplayPort (optional LCP - Secondary KVM). • USB 2.0 Type-A port (optional LCP - Secondary KVM): This port is USB 2.0-compliant with optional LCP - Secondary KVM functions. • Mini DisplayPort: Enables you to connect a display device to the system.

Table 11. Features are available on the front of the system (continued)

Item	Ports, panels, and slots	Icon	Description
			NOTE: Use a certified Mini DisplayPort to DisplayPort cable complying with VESA DisplayPort standards for video output with a monitor. **NOTE:** Mini DisplayPort to VGA or Mini DisplayPort to HDMI adapters are not recommended.
2	Drive	N/A	Enables you to install drives that are supported on your system.
3	Blank Panel	N/A	Enables you to install drives that are supported on your system.
4	Right Control Panel (RCP) - Primary	N/A	Contains the power button, USB 2.0 Type-C port (HOST/BMC Direct), and the system identification button.
5	Express service tag	N/A	The Express service tag is a slide-out label panel that contains system information such as Service Tag, NIC, MAC address, and so on. If you have opted for the secure default access to iDRAC, the Express service tag also contains the iDRAC secure default password.

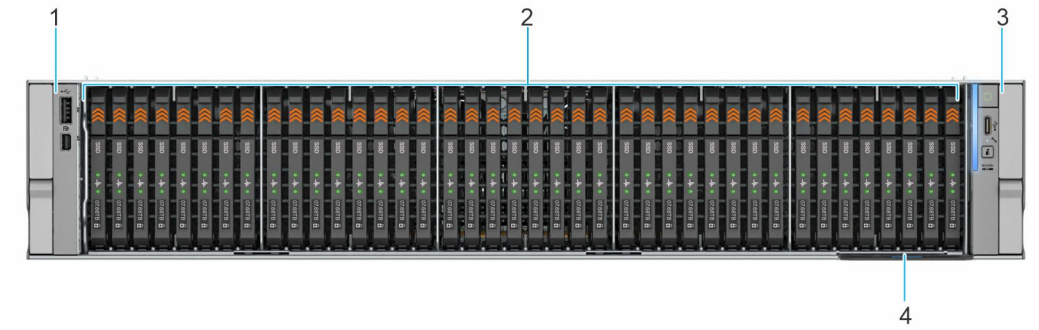


Figure 10. Front view of the 40 x EDSFF E3.S Gen5 NVMe

Table 12. Features are available on the front of the system

Item	Ports, panels, and slots	Icon	Description
1	Left Control Panel (LCP) - Secondary	N/A	Contains the USB 2.0 Type-A port (optional LCP - Secondary KVM) and the Mini

Table 12. Features are available on the front of the system (continued)

Item	Ports, panels, and slots	Icon	Description
			DisplayPort (optional LCP - Secondary KVM). • USB 2.0 Type-A port (optional LCP - Secondary KVM): This port is USB 2.0-compliant with optional LCP - Secondary KVM functions. • Mini DisplayPort: Enables you to connect a display device to the system. **NOTE:** Use a certified Mini DisplayPort to DisplayPort cable complying with VESA DisplayPort standards for video output with a monitor. **NOTE:** Mini DisplayPort to VGA or Mini DisplayPort to HDMI adapters are not recommended.
2	Drive	N/A	Enables you to install drives that are supported on your system.
3	Right Control Panel (RCP) - Primary	N/A	Contains the power button, USB 2.0 Type-C port (HOST/BMC Direct), and the system identification button.
4	Express service tag	N/A	The Express service tag is a slide-out label panel that contains system information such as Service Tag, NIC, MAC address, and so on. If you have opted for the secure default access to iDRAC, the Express service tag also contains the iDRAC secure default password.

NOTE: For more information about the ports, see the **Technical Specifications section** in the *Installation and Service Manual* available on the PowerEdge Manuals.

System configurations - rear view for PowerEdge R7725 system

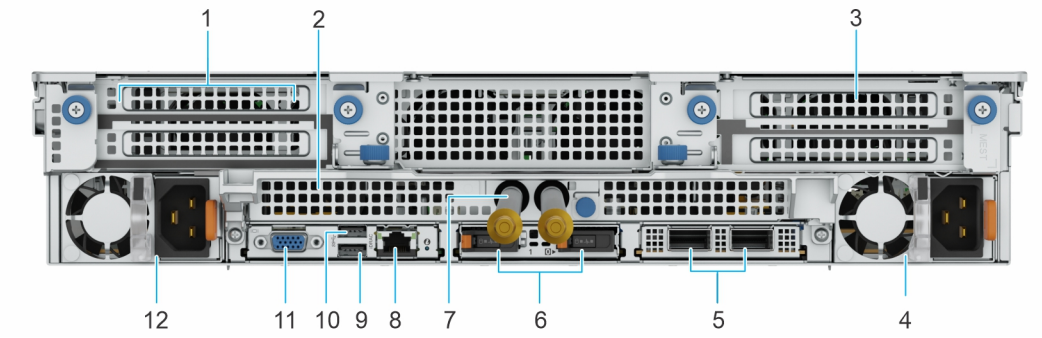


Figure 11. Rear view of the Direct Liquid Cooling (DLC) configuration

Table 13. Rear view of the system

Item	Ports, panels, or slots	Icon	Description
1	PCIe expansion card riser 2	N/A	Enables you to connect PCI Express expansion cards.
2	PCIe expansion card riser 1	N/A	Enables you to connect second OCP 3.0.
3	PCIe expansion card riser 5	N/A	Enables you to connect PCI Express expansion cards.
4	Power supply unit (PSU 2)	2	Indicates the PSU 2.
5	OCP NIC ports	N/A	This port supports OCP 3.0.
6	BOSS-N1 DC-MHS	N/A	Enables you to install the BOSS-N1 Datacenter Modular Hardware System (DC-MHS) module.
7	Liquid cooling module tubes	N/A	Cold coolant flows into the system from one tube and hot coolant leaves the system from another tube.
8	Dedicated BMC Ethernet port		Enables you to remotely access Open Server Manager.
9	USB 3.1 port		The USB port is 9-pin and 3.0-compliant. This port enables you to connect USB devices to the system.
10	USB 3.1 port		The USB port is 9-pin and 3.0-compliant. This port enables you to connect USB devices to the system.
11	VGA port		Enables you to connect a display device to the system.
12	Power supply unit (PSU 1)	1	Indicates the PSU 1.

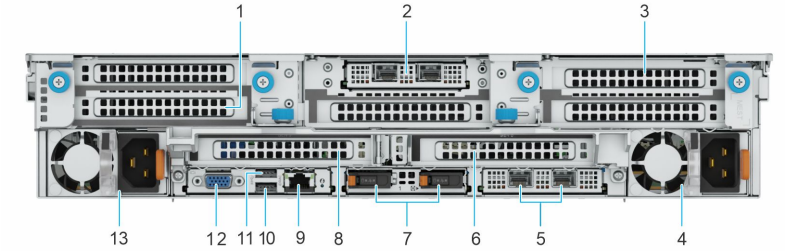


Figure 12. Rear view of the system

Table 14. Rear view of the system

Item	Ports, panels, or slots	Icon	Description
1	PCIe expansion card riser 1	N/A	Enables you to connect PCI Express expansion cards.
2	PCIe expansion card riser 3	N/A	Enables you to connect second OCP 3.0.
3	PCIe expansion card riser 5	N/A	Enables you to connect PCI Express expansion cards.
4	Power supply unit (PSU 2)	2	Indicates the PSU 2.
5	OCP NIC ports	N/A	This port supports OCP 3.0.
6	PCIe expansion card riser 4	N/A	Enables you to connect PCI Express expansion cards.
7	BOSS-N1 DC-MHS	N/A	Enables you to install the BOSS-N1 Datacenter Modular Hardware System (DC-MHS) module.
8	PCIe expansion card riser 2	N/A	Enables you to connect PCI Express expansion cards.
9	Dedicated BMC Ethernet port		Enables you to remotely access Open Server Manager.
10	USB 3.1 port		The USB port is 9-pin and 3.0-compliant. This port enables you to connect USB devices to the system.
11	USB 3.1 port		The USB port is 9-pin and 3.0-compliant. This port enables you to connect USB devices to the system.
12	VGA port		Enables you to connect a display device to the system.
13	Power supply unit (PSU 1)	1	Indicates the PSU 1.

System configurations - inside view for PowerEdge R7725 system

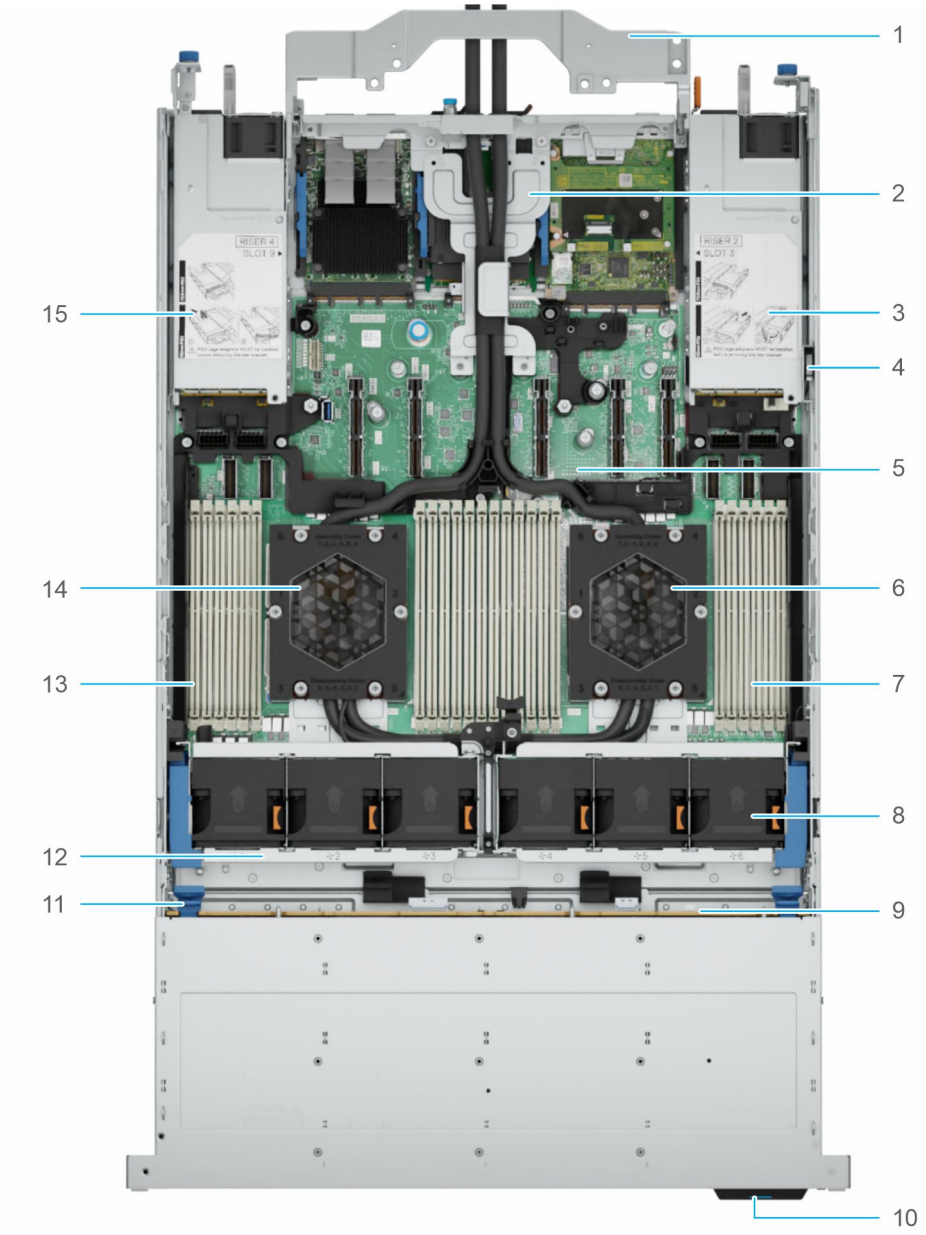


Figure 13. Inside the Direct Liquid Cooling (DLC) configuration system

1. Chassis handle
2. DLC module mid bracket
3. Riser 2
4. Intrusion Switch
5. Host Processor Module (HPM) board
6. DLC module for processor 0
7. Memory DIMM sockets for processor 0
8. Cooling fans
9. Backplane
10. Express service tag
11. Backplane release latch

12. Cooling fan cage
13. Memory DIMM sockets for processor 1
14. DLC module for processor 0
15. Riser 4

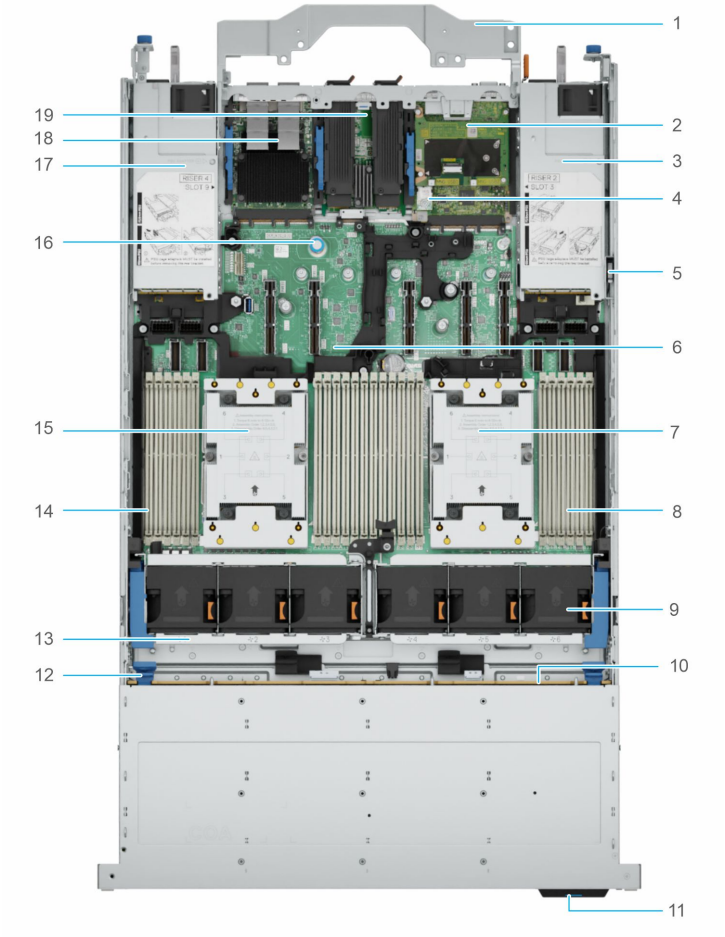


Figure 14. Inside the system

1. Chassis handle
2. Datacenter Secure Control Module (DC-SCM)
3. PSU 1
4. TPM
5. Intrusion Switch
6. Host Processor Module (HPM) board
7. Processor heat sink module for processor 0
8. Memory DIMM sockets for processor 0
9. Cooling fans
10. Backplane
11. Express service tag
12. Backplane release latch
13. Cooling fan cage
14. Memory DIMM sockets for processor 1
15. Processor heat sink module for processor 1
16. HPM handle
17. PSU 2
18. OCP 3.0 NIC card
19. BOSS-N1 DC-MHS module

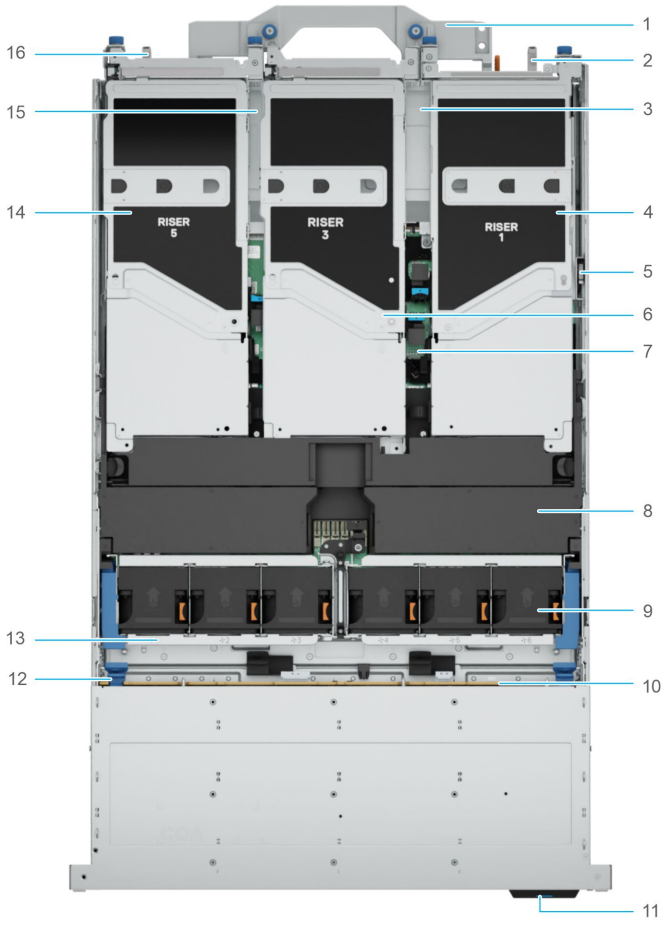


Figure 15. Inside the system with all the risers

1. Chassis handle
2. PSU 1
3. Riser 2
4. Riser 1
5. Intrusion Switch
6. Riser 3
7. Host Processor Module (HPM) board
8. Air shroud
9. Cooling fans
10. Backplane
11. Express service tag
12. Backplane release latch
13. Cooling fan cage
14. Riser 5
15. Riser 4
16. PSU 2

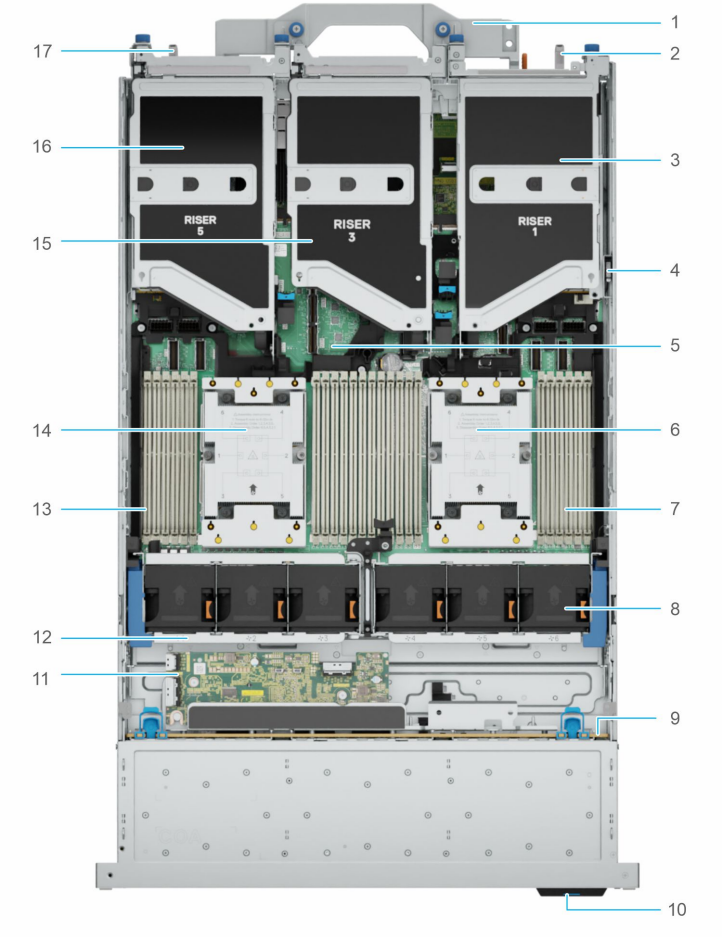


Figure 16. Inside the system with Riser 1, Riser 3 and Riser 5

1. Chassis handle
2. PSU 1
3. Riser 1
4. Intrusion Switch
5. Host Processor Module (HPM) board
6. Processor heat sink module for processor 0
7. Memory DIMM sockets for processor 0
8. Cooling fans
9. Backplane
10. Express service tag
11. Front PERC
12. Cooling fan cage
13. Memory DIMM sockets for processor 1
14. Processor heat sink module for processor 1
15. Riser 3
16. Riser 5
17. PSU 2

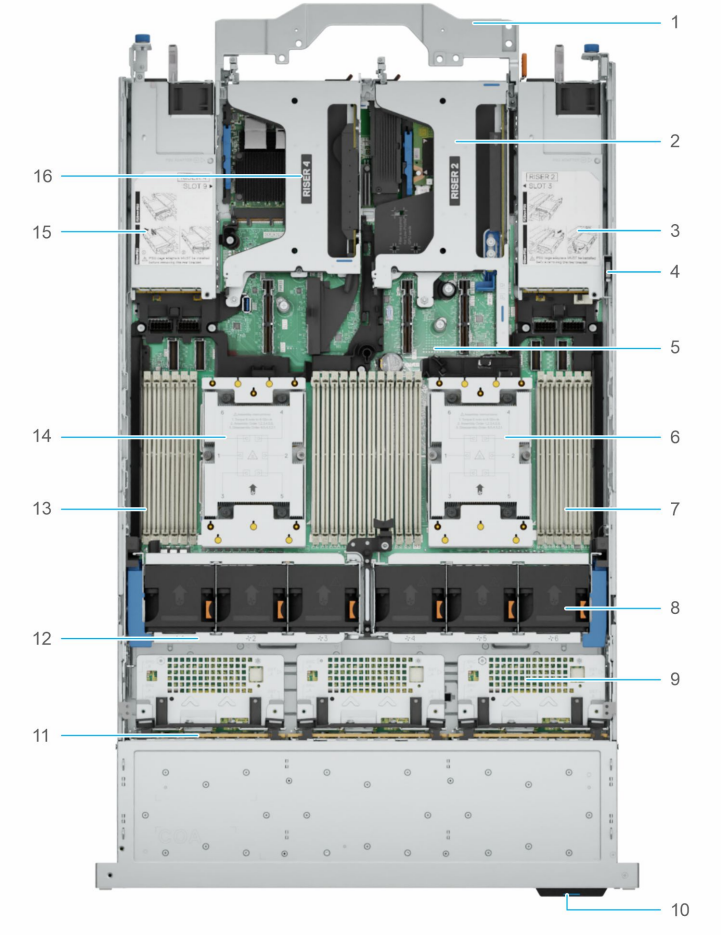


Figure 17. Inside the system with Riser 2 and Riser 4

1. Chassis handle
2. Riser 2
3. PSU 1
4. Intrusion Switch
5. Host Processor Module (HPM) board
6. Processor heat sink module for processor 0
7. Memory DIMM sockets for processor 0
8. Cooling fans
9. Front PERC
10. Express service tag
11. Backplane
12. Cooling fan cage
13. Memory DIMM sockets for processor 1
14. Processor heat sink module for processor 1
15. PSU 2
16. Riser 4

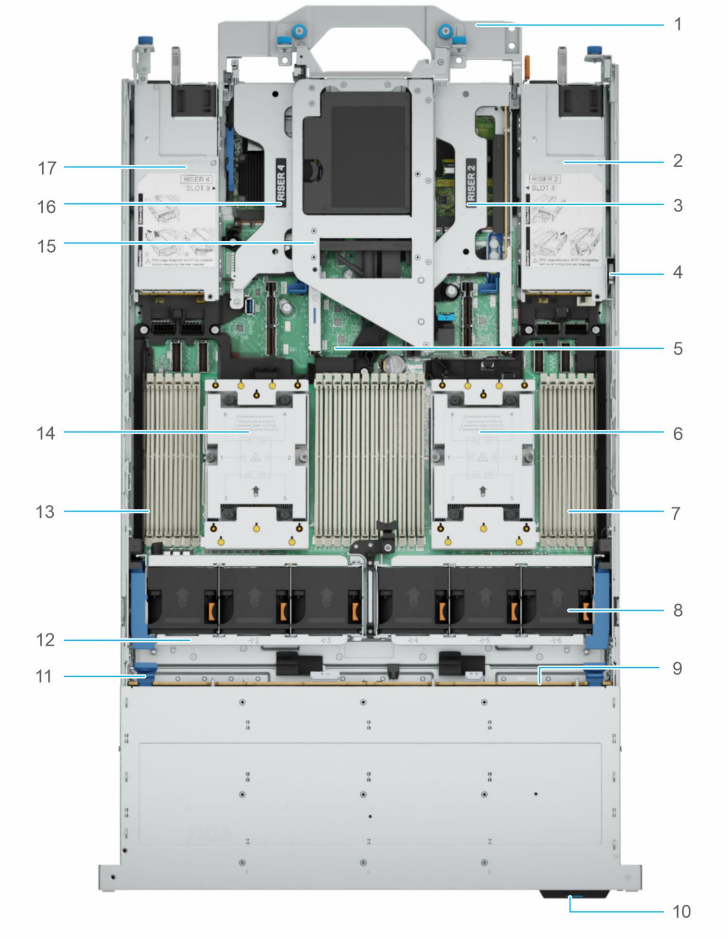


Figure 18. Inside view of the system with Riser 2, Riser 3 and Riser 4

1. Chassis handle
2. PSU 1
3. Riser 2
4. Intrusion Switch
5. Host Processor Module (HPM) board
6. Processor heat sink module for processor 0
7. Memory DIMM sockets for processor 0
8. Cooling fans
9. Backplane
10. Express service tag
11. Backplane release latch
12. Cooling fan cage
13. Memory DIMM sockets for processor 1
14. Processor heat sink module for processor 1
15. Riser 3
16. Riser 4
17. PSU 2

NOTE: The system board is known as the Host Processor Module (HPM) board in this document.

4

Processor

Topics:

- Processor features

Processor features

The AMD EPYC™ 9005 system on a chip (SOC) is the next-generation data center CPU supporting socket compatibility with EPYC™ 9004 series in the SP5 socket infrastructure. Based on AMD's new enhanced Zen5 CPU cores with integrated I/O controllers, AMD EPYC™ SOC offers significant performance improvement from current generation production and the best performance per price and lowers TCO through an optimal balance of compute, memory, I/O, and security.

The following lists the features and functions in the AMD Family 1 Ah Models 00h-0Fh and 10H-1FH Socket SP5 processors:

- Compute
  - Zen5 cores:
    - Up to 192 cores with 2 x threads per socket up to 500 W TDP
    - Up to 32 MB L3 shared by 16 cores/CCD
    - 1 MB L2/core, 32/48 KB instruction/data L1 per core
- Memory
  - 12 DDR5 memory channels up to 6400 MT/s
  - RDIMM
  - Dynamic PPR for non-Chipkill DIMMs
- Integrated I/O
  - PCIe5 supports, peak xGMI3 product speeds up to 32 Gbps.
  - Up to 128 lanes of High Speed I /O
  - Server Controller Hub (USB, UART, SPI, LPC, I2C, so on)

Supported processors

The following table shows the 5th Generation AMD EPYC 9005 Series processor SKUs that are supported on the R7725.

Table 15. supported Processor list

Processor	Base Clock Speed (GHz)	Max Clock Speed (GHz)	Cache (M)	Cores	Threads	Turbo	Memory Speed (MT/s)	Memory Capacity (TB)	TDP (W)
9965	2.25	3.7	384	192	384	Turbo	6400	6	500
9845	2.1	3.7	320	160	320	Turbo	6400	6	390
9825	2.2	3.7	384	144	288	Turbo	6400	6	390
9745	2.4	3.7	256	128	256	Turbo	6400	6	400
9755	2.7	4.1	512	128	256	Turbo	6400	6	500
9655	2.6	4.5	384	96	192	Turbo	6400	6	400
9575F	3.3	5.0	256	64	128	Turbo	6400	6	400
9555	3.2	4.4	256	64	128	Turbo	6400	6	360
9535	2.4	4.3	256	64	128	Turbo	6000	6	300

Table 15. supported Processor list (continued)

Processor	Base Clock Speed (GHz)	Max Clock Speed (GHz)	Cache (M)	Cores	Threads	Turbo	Memory Speed (MT/s)	Memory Capacity (TB)	TDP (W)
9455	3.15	4.4	256	48	96	Turbo	6000	6	300
9475F	3.65	4.8	256	48	96	Turbo	6400	6	400
9375F	3.8	4.8	256	32	64	Turbo	6400	6	320
9335	3	4.4	128	32	64	Turbo	6400	6	210
9355	3.55	4.4	256	32	64	Turbo	6400	6	280
9275F	4.1	4.8	256	24	48	Turbo	6400	6	320
9255	3.2	4.3	128	24	48	Turbo	6400	6	200
9175F	4.2	5.0	512	16	32	Turbo	6400	6	320
9115	2.6	4.1	64	16	32	Turbo	6400	6	125
9135	3.65	4.3	64	16	32	Turbo	6400	6	200
9015	3.6	4.1	64	8	16	Turbo	6400	6	125

5

Memory subsystem

Topics:

- Supported memory
- System memory guidelines
- CXL memory

Supported memory

The R7725 supports up to 24 DIMMs (12 per socket), with up to 6.14 TB of memory and speeds of up to 6400 MT/s.

The R7725 support registered (RDIMMs) which use a buffer to reduce memory loading and provide greater density, allowing for the maximum platform memory capacity. Unbuffered DIMMs (UDIMMs) are not supported.

Table 16. Memory technology comparison

Feature	PowerEdge R7725 (DDR5)
DIMM type	RDIMM
Transfer speed	Up to 6400 MT/s **NOTE:** Maximum DIMM transfer speed support dependent on CPU SKU and DIMM population.
Voltage	1.1 V

NOTE: The processor may reduce the performance of the rated DIMM speed.

System memory guidelines

The PowerEdge R7725 system supports DDR5 registered DIMMs (RDIMMs). System memory holds the instructions that are started by the processor.

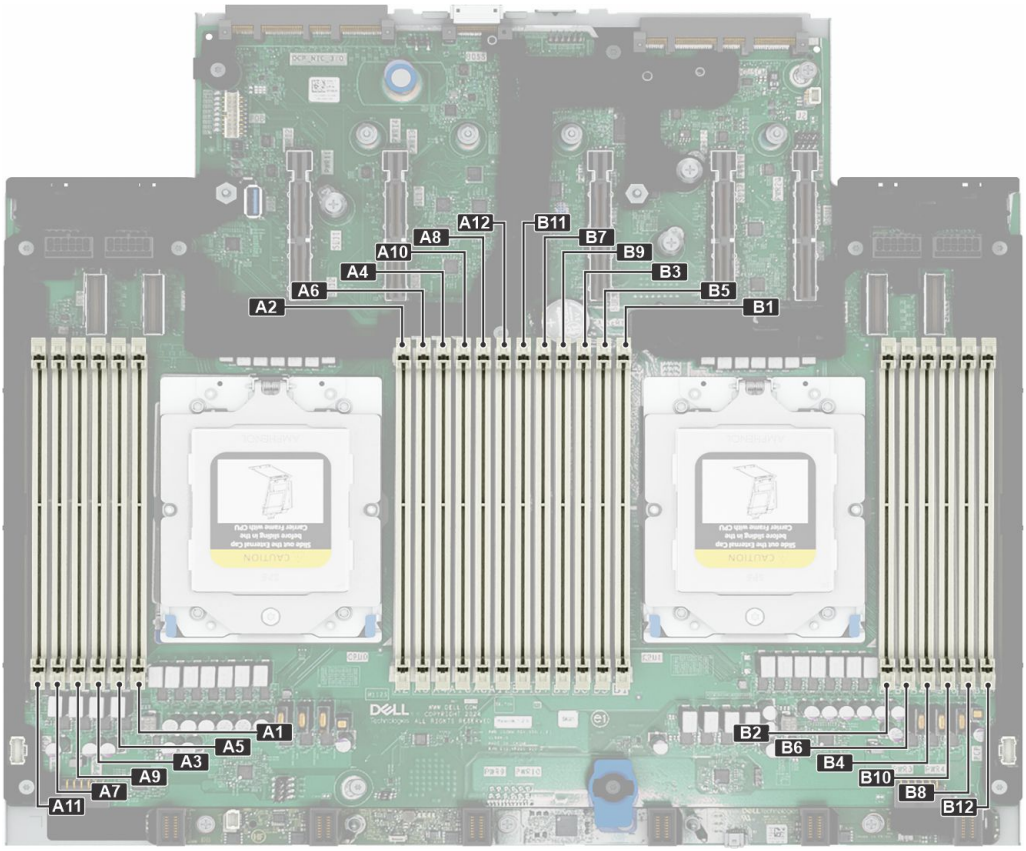


Figure 19. Memory channels

Memory channels are organized as follows:

Table 17. Memory channels A through F

Processor	Channel A	Channel B	Channel C	Channel D	Channel E	Channel F
Processor 0	Slots A1	Slots A5	Slots A3	Slots A9	Slots A7	Slots A11
Processor 1	Slots B1	Slots B5	Slots B3	Slots B9	Slots B7	Slots B11

Table 18. Memory channels G through L

Processor	Channel G	Channel H	Channel I	Channel J	Channel K	Channel L
Processor 0	Slots A2	Slots A6	Slots A4	Slots A10	Slots A8	Slots A12
Processor 1	Slots B2	Slots B6	Slots B4	Slots B10	Slots B8	Slots B12

Table 19. Supported memory matrix

DIMM type	Rank	Capacity	DIMM rated voltage and speed	Operating Speed
				1 DIMM per channel (DPC)
RDIMM	1 R	16 GB	DDR5 (1.1 V), 6400 MT/s	6400 MT/s
RDIMM	2 R	32 GB, 64 GB, 96 GB, 128 GB	DDR5 (1.1 V), 6400 MT/s	6400 MT/s
RDIMM	8 R	256 GB	DDR5 (1.1 V), 6400 MT/s	6400 MT/s

Table 20. Memory Capacity Requirement For Supported GPU Cards

Recommended System Memory Range (1.5x - 2x GPU Memory)							
GPU Name	**GPU Memory**	**x1 GPU**	**x2 GPUs**	**x3 GPUs**	**x4 GPUs**	**x5 GPUs**	**x6 GPUs**
L4	24 GB	36-48 GB	72-96 GB	108-144 GB	144-192 GB	180-240 GB	144-288 GB
L40S	48 GB	72-96 GB	144-192 GB	N/A	N/A	N/A	N/A
A16	64 GB	96-128 GB	196-256 GB	N/A	N/A	N/A	N/A
H100NVL	94 GB	141-188 GB	282-376 GB	N/A	N/A	N/A	N/A
RTX Pro 6000 BSE	96 GB	144-192 GB	288-384 GB	N/A	N/A	N/A	N/A
H200NVL	141 GB	212-282 GB	423-564 GB	N/A	N/A	N/A	N/A

NOTE: The processor may reduce the performance of the rated DIMM speed.

NOTE: Maximum DIMM transfer speed support dependent on CPU SKU and DIMM population.

Memory interleaving with Non-uniform memory access (NUMA)

Non-uniform memory access (NUMA) is a memory design used in multi-processing, where the memory access time depends on the memory location relative to the processor. In NUMA, a processor can access its own local memory faster than the non-local memory.

NUMA nodes per socket (NPS) is a new feature added that allows you to configure the memory NUMA domains per socket. The configuration can consist of one whole domain (NPS1), two domains (NPS2), or four domains (NPS4). In the case of a two-socket platform, an additional NPS profile is available to have whole system memory to be mapped as single NUMA domain (NPS0). For more information on the memory interleaving for NPSx, see the Memory interleaving population rules section in this topic.

BIOS implementation for NPSx

- The BIOS Setup menu presents the applicable NPSx options based on the underlying model number. A change to the current NPSx is communicated to pre-BIOS firmware to take effect on the next boot. The default NPS setting is 1.
- During boot, if the selected NPSx option is not allowed for the model number (for example, if the processor model number changes between reboot), system will halt at the end of POST with UEFI0388 message displayed. On the next reboot, the system will fall back to NPS1 default setting.
- During boot, if the preferred interleaving for the current NPSx is not possible due to memory configuration (for example, the memory population is inconsistent with the preferred interleaving), BIOS shows a warning message UEFI0391.

Table 21. NPS option and Memory Interleave

NPS Option	CCD Configuration	Memory Interleaving	Server Package (12 memory channels)
NPS4: Four NUMA nodes per socket, one node per quadrant.	Symmetric configuration across all quadrants of the SoC.	Firmware will attempt to interleave all memory channels on each Quadrant of the SoC.	3- way interleave per node: {ABD}, {CEF}, {GHK}, and {IKL}
NPS2: Two NUMA nodes per socket,one node per left/right half of the SoC.	Requires symmetrical CCD configuration across left/right halves of the SoC.	Firmware will attempt to interleave all memory channels on each Half of the SoC.	6-way Interleave per Node: {ABCDEF} and {GHIJKL}
NPS1: One NUMA node per socket.	Available for any CCD configuration in the SoC. Default configuration	Firmware will attempt to interleave all memory channels in the Socket.	12-way Interleave per Socket: {ABCDEFGHIJKL}
NPS0: One NUMA node per system.	Available on dual processor systems only.	Firmware will attempt to interleave all memory channels in the System.	24-way Interleave per System: {ABCDEFGHIJKL} from each socket

NOTE:

1. If the CCD configuration is altered by software (e.g., BIOS Setup Option), NPS4 or NPS2 configurations may not be available, based on the Symmetry requirements noted above.
2. Not all OPNs support NPS2 or NPS4, based on CCD configuration per package.

CXL memory

Table 22. CXL memory

Platform	RC#	CPU0 Port	CPU1 Port	Native DIMM configuration	Total Native DIMM capacity	CXL AIC configuration	Total system memory capacity
R7725	RC3 or RC7	P3 (x16)	P3 (x16)	12 x 96 GB	1152 GB	2 x AIC (96 GB x 4)	3072 GB
R7725	RC3 or RC7	P1 (x8 + x8)	P0 (x8 + x8)	12 x 256 GB	3072 GB	4 x AIC (128 GB x 4)	8192 GB

NOTE:

- Only the above Native DIMM configurations are supported.
- CXL requires fully populated Native DIMMs.
- Cannot select under 4x DIMMs on AIC.
- Cannot support more than two AICs per CPU.
- 256 GB within AIC cannot be thermally supported.

6

Storage

Topics:

- Storage controllers
- Supported Drives
- Internal storage configuration
- Boot Optimized Storage Solution (BOSS)

Storage controllers

Dell RAID controller options offer performance improvements, including the fPERC solution. fPERC provides a base RAID HW controller without consuming a PCIe slot by using a small form factor and high-density connector to the base planar.

NOTE: The size of the RAID 1 drives must be less than that of the secondary RAID containers.

Table 23. PERC Series controller offerings

Performance Level	Controller and Description
Premium Performance	H975i Avanger 2 Memory: 1 GB DDR4/2400 MT/s Cache memory: 192 MB x16 PCIe 5.0 at 32 Gbps
	H965i Avenger 1 Memory: 8GB DDR4 NV cache 72-bit memory 2133 MHz DC-MHS form factor x16 PCIe 4.0 PCIe 4 at 16 Gbps
	H365i Avanger 1 X8 PCIe 4.0 at 16 Gbps
	HBA465e Avanger 1 X8 PCIe 4.0 at 16 Gbps
	H965e Avanger 1 Memory: 8 GB DDR4 3200 MT/s x16 OCUe 4,0 at 16 Gbps

NOTE: PowerEdge does not support Tri-Mode, the mixing of SAS, SATA, and NVMe behind the same controller.

NOTE: For more information about the features of the Dell PowerEdge RAID controllers (PERC), Software RAID controllers, or BOSS cards, and on deploying the cards, see the storage controller documentation at Storage Controller Manuals.

NOTE: For the ESXi operating system, H975i is supported on 9.0 or later versions.

Supported Drives

The table that is shown below lists the internal drives that are supported in system. See Agile for the latest SDL.

Table 24. Supported drives

Form Factor	Type	Speed	Rotational Speed	Capacities
2.5 inches	SATA SSD	6 Gbps	SSD	480 GB, 960 GB, 1.92 TB, 3.84 TB
2.5 inches	SAS HDD	12 Gbps	10K	600 GB, 1.2 TB, 2.4 TB
3.5 inches	SATA HDD	6 Gbps	7.2K	2 TB, 4 TB, 8 TB, 12 TB, 16 TB, 20 TB, 24 TB, 32 TB*
3.5 inches	SAS HDD	12 Gbps	7.2K	2 TB, 4 TB, 8 TB, 12 TB, 16 TB, 20 TB, 24 TB, 32 TB*
2.5 inches	NVMe	Gen5	SSD	1.92 TB, 3.84 TB, 7.68 TB, 15.36 TB, 30.72 TB, 61.44 TB
EDSFF E3.S NVMe	NVMe	Gen5	SSD	1.6 TB, 1.92 TB, 3.2 TB, 3.84 TB, 6.4 TB, 7.68 TB,15.36 TB, 30.72 TB, 61.44 TB

NOTE: This document provides a comprehensive list of product features. However, features marked with an asterisk (*) may not be available at launch but introduced in future updates. Please note that this document does not confirm the availability or release timeline of any feature. For the most accurate and up-to-date information on feature availability, please refer to the product configurator page on dell.com.

NOTE: *Feature not available at product launch in November,2025. Please refer to the product configurator page on Dell.com to confirm feature availability..

Solid State Drives (SSDs)

SSD Facts

Unlike hard disk drives (HDDs) which use a spinning platter to store data, solid state drives (SSDs) use solid state memory NAND flash. HDDs have several different mechanical moving parts which make them susceptible to vibrational and handling interference. Solid state drives, on the other hand have no moving parts and are less susceptible to vibrational or handling damage even when impacted during use.

SSDs deliver high-performance I/O operations per second (IOPS), and low latency for transaction - intensive server and storage applications. Properly used in systems, they reduce total cost of ownership (TCO) through low power consumption and low operating temperature.

Dell offers different solid state drive (SSD) solutions to meet different customer needs. Enterprise & Data Center SSDs, as a class, are unique compared to client or consumer-based SSD in terms of reliability, performance, and architecture. While consumer-based SSDs, such as those utilized in notebooks are designed with a focus on consumer-based workloads, rigidity and battery life, enterprise-class SSDs are designed around enterprise application I/O (I/O) requirements with focus points of random I/O performance, reliability, and protection of data during a sudden power-down.

Understanding the basics of enterprise-class SSDs allow customers to make informed decisions when comparing solutions:

- Over-provisioning: The Achilles' heel of SSDs are their write characteristics. To rewrite an area of an SSD that has already been written, the data must be erased and then written. In order to overcome a portion of the write performance penalty, Dell enterprise SSDs found across Dell PowerEdge products, all employ a practice that is known as over-provisioning of Flash. This practice keeps native Flash capacity beyond the user-defined capacity and uses the additional space as a

scratch pad of sorts to quickly put down application write data on areas of Flash that are already in an erased state. The SSDs perform cleanup functions of this over-provisioned Flash space during time periods typically not impacting application performance.

- Write Endurance: Write endurance is the number of program/erase (P/E or write cycles) that can be applied to a block of flash memory before the storage media becomes unreliable. Due to different data center workloads and read/write needs, Dell offers different enterprise SSDs with different endurance ratings so customers can design the right solution for their needs.

Below are the different categories (swim lanes) of enterprise SSDs Dell offers:

- Mixed Use (MU, 3 WPD): 70/30 read/write workloads with medium endurance. E-mail/messaging, OLTP, and Ecommerce are example workloads.
- Read Intensive (RI, 1 WPD): 90/10 read/write workloads with lower endurance. Database warehousing, media streaming, and VOD solutions are example workloads.

Dell enterprise SSDs support two kinds of host interface options:

- NVMe SSD: NVMe SSDs are a mainstream, high-performance, high reliability solid-state storage device that enables IOPS performance of up to 2000x more than conventional rotating hard drives.
- SATA SSD: SATA SSDs are based on the industry-standard SATA interface. SATA SSDs provide reasonable performance for enterprise servers.

There are two classes of NVMe drives used in servers: Enterprise NVMe and Data Center NVMe SSDs:

- Data Center NVMe SSDs: This class features a balance of various factors, including performance, latency, data protection, power consumption, and affordability.
- Enterprise NVMe SSDs: Representing the premium option, this class boasts the best performance, lowest latency, robust data protection, wide capacity ranges, and extensive firmware features. However, this comes at the expense of higher power consumption and a higher price point.

Together, Dell's Enterprise and Data Center NVMe drive portfolio offers a diverse range of options for customers, covering everything from high-performance drives to cost-optimized solutions. Additionally, these drives challenge the existence of any interface other than NVMe for SSDs.

Dell Enterprise SSDs support E3.S form factor:

- E3.S: Part of the EDSFF family, E3.S is targeted to NVMe SSDs with x4 PCIe link widths. It supports power profiles up to 25 W and is positioned to be a primary form factor for mainstream NVMe server storage subsystems as it can be used across a wide variety of platforms including modular and short depth chassis.

SSD Feature Matrix

The following table shows the types of SSD configurations on the PowerEdge R7725:

Table 25. SSD feature matrix

Type	Model	Interface	Class	Speed	Form Factor	Endurance	Security	Capacity
SSD	Agnostic	SATA	SATA	6 Gbps	2.5	MU	ISE	1.92 TB
SSD	Agnostic	SATA	SATA	6 Gbps	2.5	MU	ISE	480 GB
SSD	Agnostic	SATA	SATA	6 Gbps	2.5	MU	ISE	960 GB
SSD	Agnostic	SATA	SATA	6 Gbps	2.5	RI	ISE	1.92 TB
SSD	Agnostic	SATA	SATA	6 Gbps	2.5	RI	ISE	3.84 TB
SSD	Agnostic	SATA	SATA	6 Gbps	2.5	RI	ISE	480 GB
SSD	Agnostic	SATA	SATA	6 Gbps	2.5	RI	ISE	960 GB
SSD	Agnostic	NVMe	Enterprise	Gen4	2.5	MU	ISE	1.6 TB
SSD	Agnostic	NVMe	Enterprise	Gen4	2.5	MU	FIPS	1.6 TB
SSD	Agnostic	NVMe	Enterprise	Gen4	2.5	MU	ISE	3.2 TB
SSD	Agnostic	NVMe	Enterprise	Gen4	2.5	MU	ISE	6.4 TB

Table 25. SSD feature matrix (continued)

Type	Model	Interface	Class	Speed	Form Factor	Endurance	Security	Capacity
SSD	Agnostic	NVMe	Enterprise	Gen4	2.5	RI	ISE	1.92 TB
SSD	Agnostic	NVMe	Enterprise	Gen4	2.5	RI	ISE	3.84 TB
SSD	Agnostic	NVMe	Enterprise	Gen4	2.5	RI	ISE	15.36 TB
SSD	Agnostic	NVMe	Enterprise	Gen4	2.5	RI	ISE	7.68 TB
SSD	Agnostic	NVMe	Data Center	Gen4	2.5	MU	ISE	1.6 TB
SSD	Agnostic	NVMe	Data Center	Gen4	2.5	MU	ISE	3.2 TB
SSD	Agnostic	NVMe	Data Center	Gen4	2.5	MU	ISE	800 GB
SSD	Agnostic	NVMe	Data Center	Gen4	2.5	RI	ISE	960 GB
SSD	Agnostic	NVMe	Data Center	Gen4	2.5	RI	ISE	1.92 TB
SSD	Agnostic	NVMe	Data Center	Gen4	2.5	RI	ISE	3.84 TB
SSD	Agnostic	NVMe	Data Center	Gen4	2.5	RI	ISE	7.68 TB
SSD	Agnostic	NVMe	Enterprise	Gen5	E3.S	RI	ISE	3.84 TB
SSD	Agnostic	NVMe	Enterprise	Gen5	E3.S	RI	ISE	7.68 TB
SSD	Agnostic	NVMe	Enterprise	Gen5	E3.S	RI	ISE	15.36 TB
SSD	Agnostic	NVMe	Enterprise	Gen5	E3.S	MU	ISE	3.2 TB
SSD	Agnostic	NVMe	Enterprise	Gen5	E3.S	MU	ISE	6.4 TB
SSD	Agnostic	NVMe	Data Center	Gen5	E3.S	MU	ISE	1.6 TB
SSD	Agnostic	NVMe	Data Center	Gen5	E3.S	MU	ISE	3.2 TB
SSD	Agnostic	NVMe	Data Center	Gen5	E3.S	RI	ISE	1.92 TB
SSD	Agnostic	NVMe	Data Center	Gen5	E3.S	RI	ISE	3.84 TB
SSD	Agnostic	NVMe	Enterprise	Gen4	2.5/U.2	VRI	ISE	61.44 TB
SSD	Agnostic	NVMe	Enterprise	Gen5	E3.S	VRI	ISE	30.72 TB
SSD	Agnostic	NVMe	Enterprise	Gen5	E3.S	VRI	ISE	61.44 TB
SSD	Agnostic	NVMe	Enterprise	Gen5	E3.S	MU FIPSs	ISE	3.2 TB/6.4 TB
SSD	Agnostic	NVMe	Enterprise	Gen5	E3.S	RI FIPs	ISE	3.84 TB/7.68 TB/ 15.36 TB

This document is updated as changes happen, so be sure to bookmark it rather than downloading an offline copy to stay with the latest information or see the Drive and Platform Matrix.

Hard Disk Drives (HDDs)

HDD Facts

HDD (Hard Disk Drive) is a storage media that are characterized by a set of spinning platters with arms to move recording heads over the surfaces to the right locations for reading and writing designated data.



Figure 20. Hard Disk Drive

The heads read or write the data and transfer it through the interface to the server. That interface for Dell standard enterprise HDDs can be either Serial Attached SCSI (SAS) or Serial ATA (SATA) and affects the speed at which data is transferred. Typically, SATA is 6 gigabits/sec. Where SAS is 12 gigabits/sec so throughput for SAS can be twice that of SATA. Additionally, due to better signal to noise ratios, SAS can have longer cable lengths, allowing it to connect to external data storage. SAS is also considered a more robust protocol.

Enterprise HDDs are typically used with multiple-user servers running enterprise software. Examples are transaction processing databases, internet infrastructure (email, webserver, e-commerce), scientific computing software, and nearline storage management software. Enterprise drives commonly operate continuously ("24/7") in demanding environments while delivering the highest possible performance without sacrificing reliability.

The fastest enterprise HDDs spin at 10,000 RPM and 15,000 RPM, and can achieve sequential media transfer speeds above 290 MB/s. Drives running at 10,000 or 15,000 RPM use smaller platters to mitigate increased power requirements and therefore generally have lower capacity than the highest capacity 7,200 RPM drives. 10 K and 15 K drives are labeled Mission Critical or Performance Optimized, while 7.2 K are called Business Critical or Capacity Optimized. Since 7.2 K drives spin slower, they can have larger platters and space for more platters in an HDD case. That allows for higher capacity drives – 16 TB, 18 TB and so on.

Random read/write task speeds are usually measured in IOPs (Input/Output operations per second) and for 15 K drives can be up to 290. That may sound like a lot but is dwarfed by IOPS (in the hundreds of thousands) available on SSDs. Below is a link to a chart showing HDD performance characteristics:

HDD_Characteristic_and_Metrics

Depending on the workload type, storage device capabilities are prioritized differently. Below is discussed several capabilities and the media that you would select for each.

- Better performance measured in IOPS: Storage performance for random workloads is measured in IOPS. When ordered in terms of general IOPS performance, choose 15 K, and then 10 K, then 7.2 K and within those SAS HDDs, NL-SAS HDDs, and SATA HDDs.
- Better performance is measured in throughput, or gigabytes per second (GB/s): Unless dealing with heavy sequential workloads that would benefit from flash technology, HDDs are a good choice for most sequential workloads, such as media viewing or database logging. NAND caching can further boost the performance of HDD storage as necessary.
- Lower latency: For workloads sensitive to latency, internal storage on the server itself typically has less latency than storage on external arrays where longer fetch times over the network can greatly add to existing storage latency. It is important to note that SSDs present much lower latency than mechanical HDDs.

- Greater capacity: For capacity-driven workloads, such as email archives, disk-based backup, and object storage applications, high IOPS or throughput performance may be less of a priority as compared to capacity. In this case, choose cost-efficient HDDs, which can offer the greatest capacity at the lowest cost.

While HDDs generally provide lower performance and higher latency than SSDs, they are still an excellent option when used as part of a complete storage strategy that balances cost per GB, capacity, application needs, and performance.

HDD feature matrix

Table 26. HDD feature matrix

Type	Interface	Form Factor	RPM	Sector	Security	Capacity
HDD	12 Gbps SAS	2.5	10 K	512n	ISE	600 GB
HDD	12 Gbps SAS	2.5	10 K	512n	ISE	1.2 TB
HDD	12 Gbps SAS	2.5	10 K	512n	FIPS-140	1.2 TB
HDD	12 Gbps SAS	2.5	10 K	512e	ISE	2.4 TB
HDD	12 Gbps SAS	2.5	10 K	512e	FIPS-140	2.4 TB
HDD	12 Gbps SAS	3.5	7.2 K	512n	ISE	2 TB
HDD	12 Gbps SAS	3.5	7.2 K	512n	ISE	4 TB
HDD	12 Gbps SAS	3.5	7.2 K	512e	ISE	8 TB
HDD	12 Gbps SAS	3.5	7.2 K	512e	FIPS-140	8 TB
HDD	12 Gbps SAS	3.5	7.2 K	512e	ISE	12 TB
HDD	12 Gbps SAS	3.5	7.2 K	512e	ISE	16 TB
HDD	12 Gbps SAS	3.5	7.2 K	512e	FIPS-140	16 TB
HDD	12 Gbps SAS	3.5	7.2 K	512e	ISE	20 TB
HDD	6 Gbps SATA	3.5	7.2 K	512n	ISE	2 TB
HDD	6 Gbps SATA	3.5	7.2 K	512n	ISE	4 TB
HDD	6 Gbps SATA	3.5	7.2 K	512e	ISE	8 TB
HDD	6 Gbps SATA	3.5	7.2 K	512e	ISE	12 TB
HDD	6 Gbps SATA	3.5	7.2 K	512e	ISE	16 TB
HDD	6 Gbps SATA	3.5	7.2 K	512e	ISE	20 TB

This document is updated as changes happen, so be sure to bookmark it rather than downloading an offline copy to stay with the latest information or see the Drive and Platform Matrix.

Internal storage configuration

R7725 available internal storage configurations:

- No backplane configuration
- 8 x 2.5-inch Universal
- 12 x 3.5-inch SAS/SATA
- 16 x 2.5-inch SAS/SATA
- 24 x 2.5-inch SAS/SATA
- 16 x 2.5-inch SAS/SATA + 8 x U.2 or 2.5-inch NVMe RAID
- 8 x EDSFF E3.S Gen5 NVMe
- 16 x EDSFF E3.S Gen5 NVMe
- 32 x EDSFF E3.S Gen5 NVMe

- 40 x EDSFF E3.S Gen5 NVMe

Boot Optimized Storage Solution (BOSS)

BOSS is a RAID solution that is designed to boot operating systems and segregate operating system boot drives from data on server-internal storage.

BOSS feature matrix

Table 27. BOSS feature matrix

BOSS card	Drive Size	RAID levels	Stripe size	Virtual disk cache function	Maximum number of virtual disks	Maximum number of drives supported	Drive types	PCIe support	Disk cache policy	Support for Non-RAID disks	Cryptographic digital signature to verify firmware payload	Hot Plug
BOSS-N1 DC-MHS Flatbread	M.2 devices are read-intensive with 480 GB or 960 GB capacity.	RAID 1 and RAID 0	Supports default 64 K stripe size only.	None	1	2	M.2 NVMe	Gen3	Drive default	No	Yes	No

NOTE: The system can support BOSS in the rear of the system.

7

Networking

Topics:

- Overview
- OCP 3.0 support

Overview

PowerEdge offers a wide variety of options to get information moving to and from our servers. Industry best technologies are chosen and these adapters are rigorously validated for worry-free, fully supported use in Dell servers.

OCP 3.0 support

Table 28. OCP 3.0 feature list

Feature	OCP 3.0
Form factor	SFF
PCIe Gen	Gen5
Max PCIe width	x16
Max number of ports	4
Port type	BT/SFP/SFP28/QSFP56/QSFP112
Max port speed	400 GbE
NC-SI	Yes, support on embedded slot (slot 5) only.
SNAP I/O	N/A
WoL	Yes
Power consumption	15 W–35 W

Supported OCP cards

Table 29. Supported OCP cards

Form factor	Vendor	Port type	Port speed	Port count
OCP 3.0	Broadcom	BT	1 GbE	4
	Intel	BT	1 GbE/2.5 GbE	4
	Intel	BT	10 GbE	4
	Broadcom	BT	10 GbE	4
	Intel	BT	10 GbE	2
	Broadcom	BT	10 GbE	2
	Broadcom	SFP28	25 GbE	2

Table 29. Supported OCP cards (continued)

Form factor	Vendor	Port type	Port speed	Port count
	Broadcom	QSFP112	200 GbE	2
	Broadcom	QSFP56	100 GbE	2
	NVIDIA	QSFP56	100 GbE	2
	Broadcom	SFP28	25 GbE	4
	NVIDIA	SFP28	25 GbE	2

OCP NIC 3.0 vs 2.0

Table 30. OCP 3.0 and 2.0 NIC comparison

Form Factor	OCP 3.0	OCP 2.0 (LOM Mezz)	Notes
PCIe Gen	Gen5	Gen3	Supported OCP3 is SFF (small form factor).
Max PCIe Lanes	Up to x16	Up to x16	See server slot priority matrix.
Shared LOM/DC-SCM	Yes	Yes	Only OCP on slot 10 (embedded OCP slot) can support BMC port redirect as shared NIC.
Aux Power	Yes	Yes	Used for Shared LOM

8

PCIe subsystem

Topics:

- PCIe risers

PCIe risers

Shown below are the riser offerings for the platform.

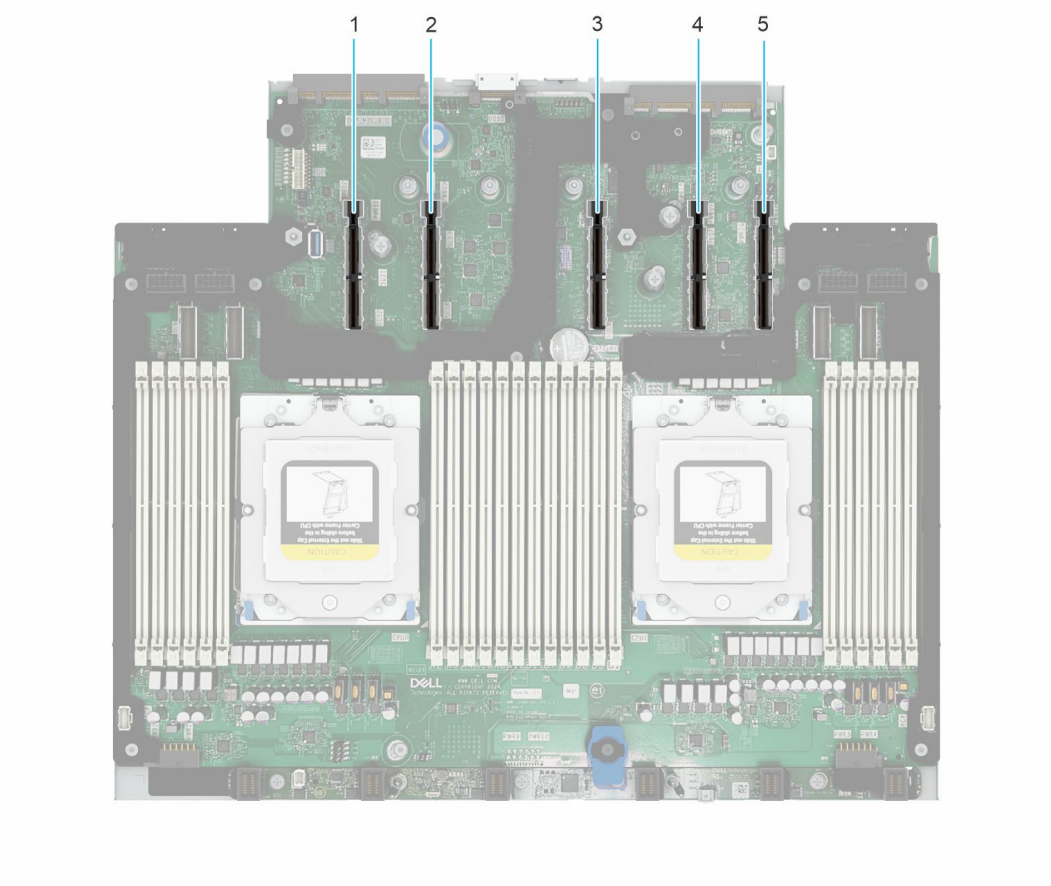


Figure 21. Riser connector location on the HPM board

1. Riser Connector 5
2. Riser Connector 4
3. Riser Connector 3
4. Riser Connector 1
5. Riser Connector 2

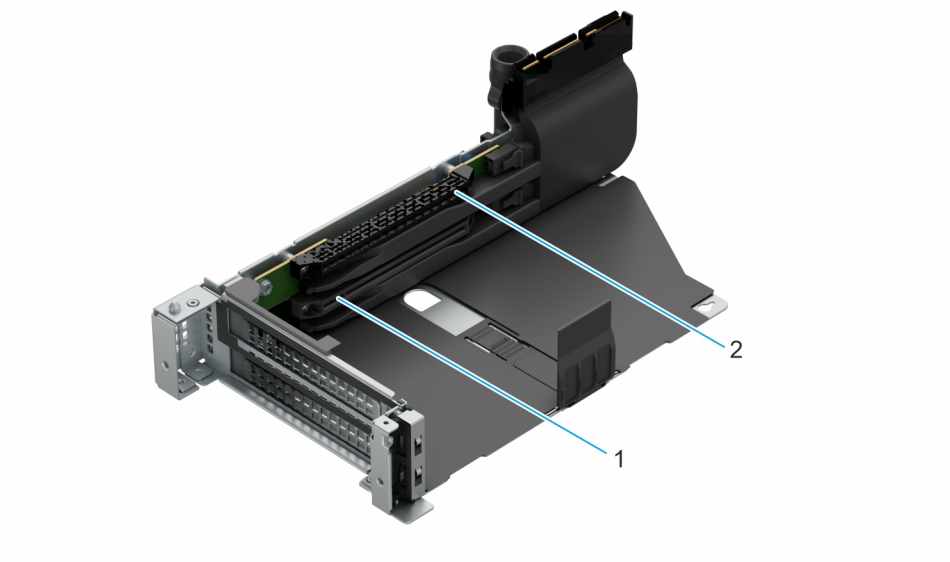


Figure 22. Riser 1a

1. Slot 1
2. Slot 2

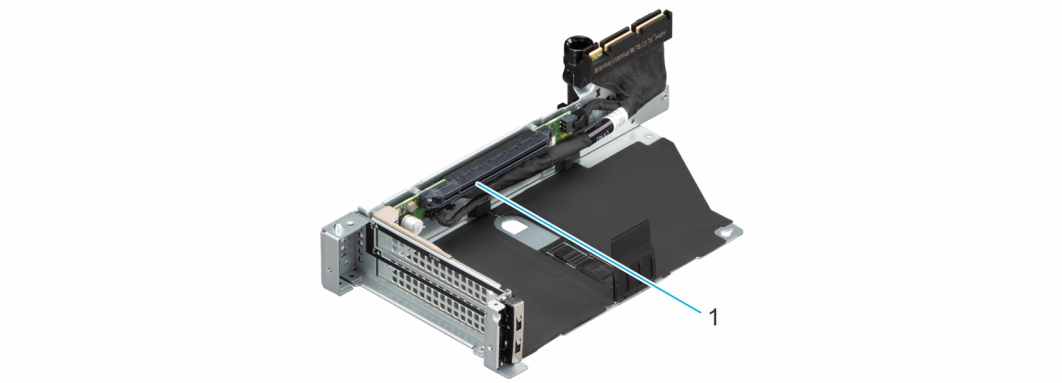


Figure 23. Riser 1b

1. Slot 2

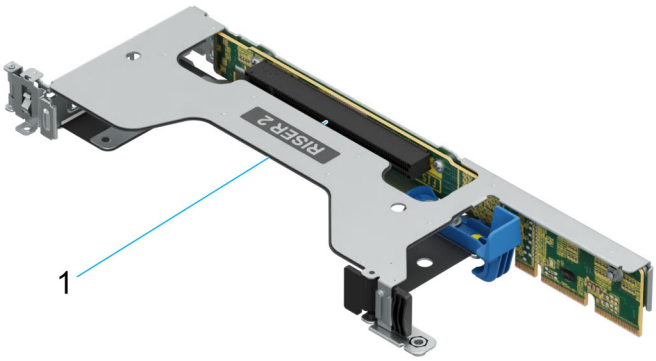


Figure 24. Riser 2a

1. Slot 3

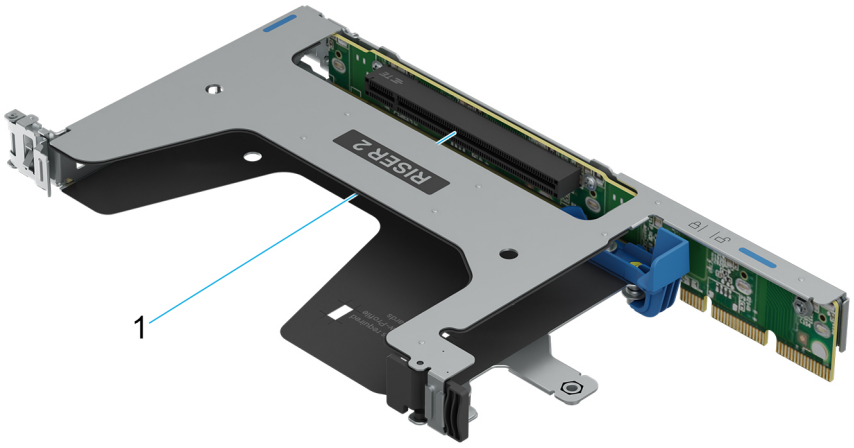


Figure 25. Riser 2b

1. Slot 3

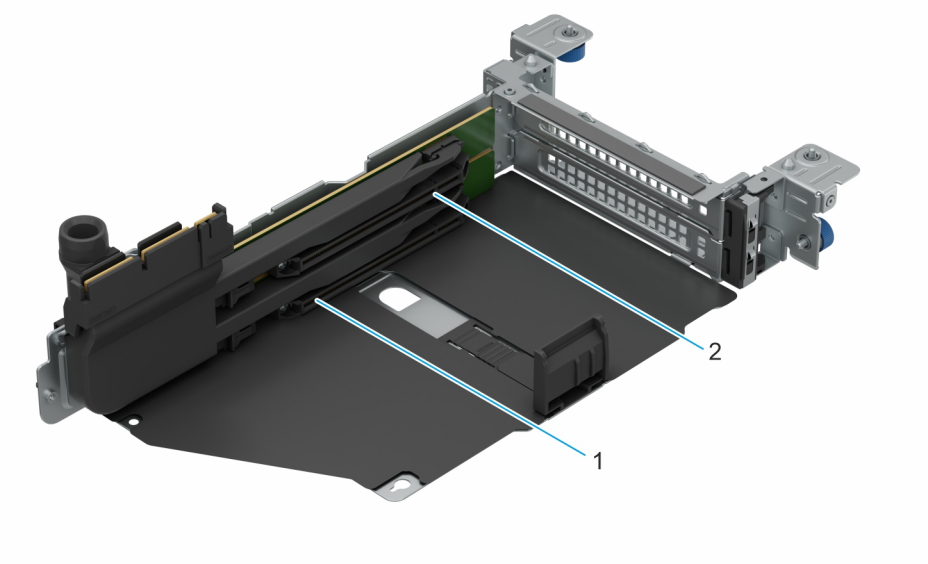


Figure 26. Riser 3a

1. Slot 4
2. Slot 5

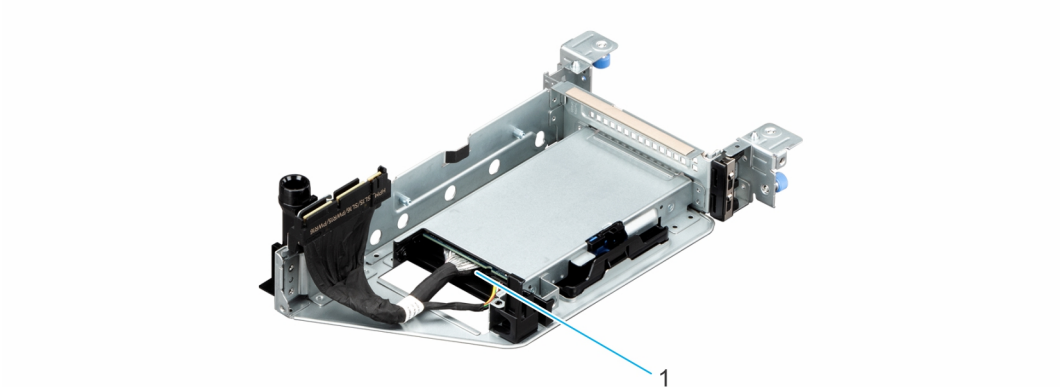


Figure 27. Riser 3e

1. Slot 4

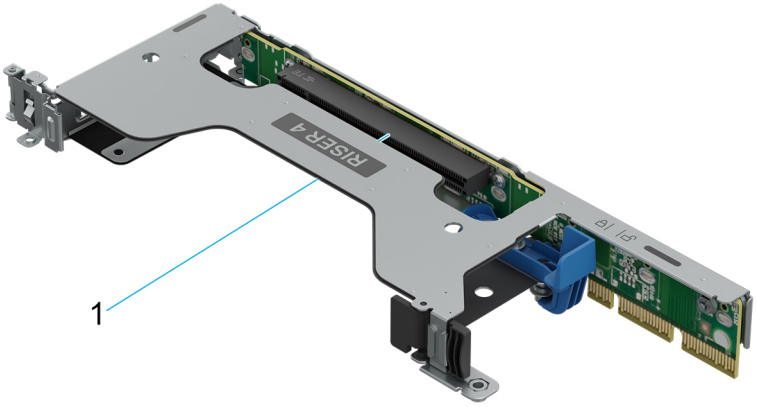


Figure 28. Riser 4a

1. Slot 9

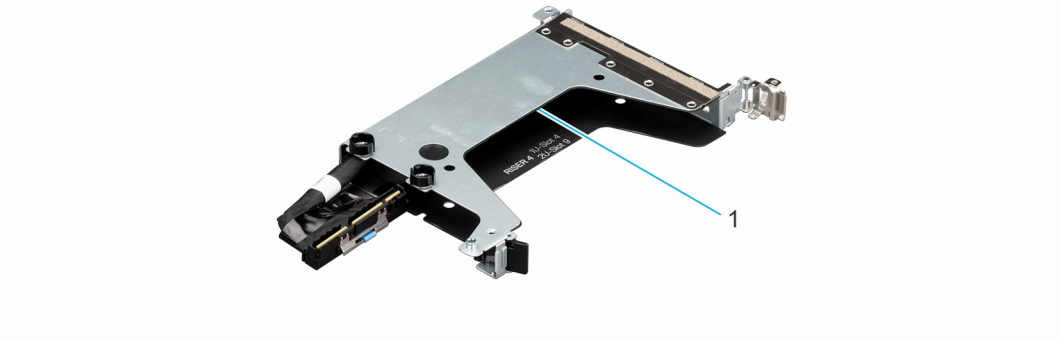


Figure 29. Riser 4b

1. Slot 9

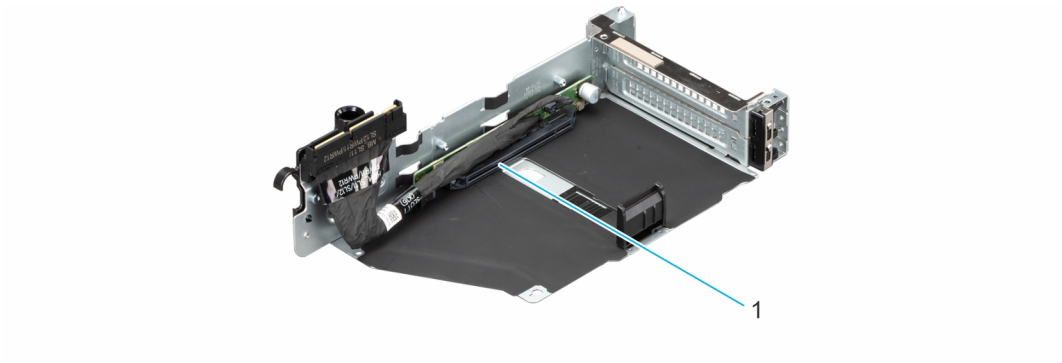


Figure 30. Riser 5b

1. Slot 7

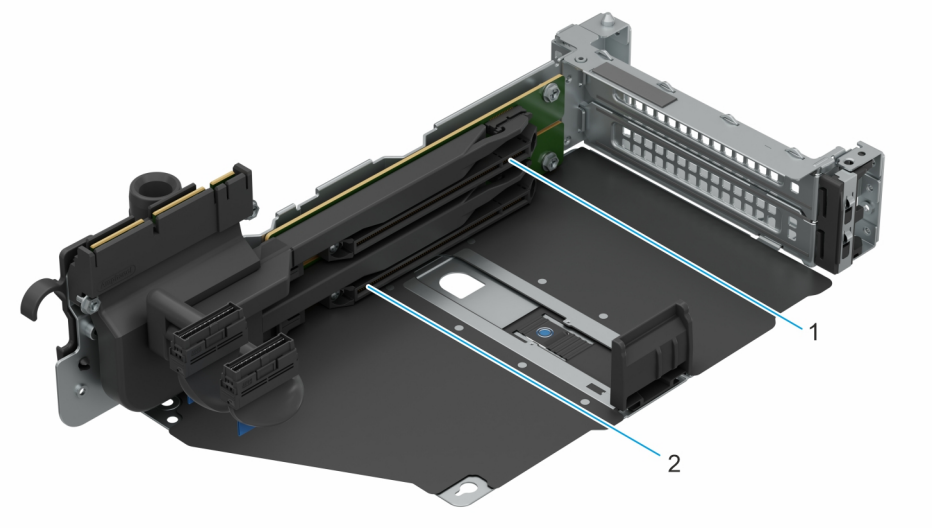


Figure 31. Riser 5e

1. Slot 7
2. Slot 8

Table 31. PCIe Riser Configurations

Config No.	Riser configuration	No. of Processors	PERC type supported	Rear storage possible
2	R1b+R5b	2	Front PERC	No
3	R1b+R2b+R3e+R4b+R5b	2	Front PERC	No
4	R1b+R2a+R3e+R4a+R5b	2	Front PERC	No
5	R1b+R2b+R3b+R4b+R5e	2	Front PERC	No
7	R1a+R2b+R3a+R4b+R5a	2	Front PERC	No
8	R1b+R3e+R5b	2	Front PERC	No

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Power, thermal, and acoustics

PowerEdge servers have an extensive collection of sensors that automatically track thermal activity, which helps to regulate temperature by reducing server noise and power consumption. The table below lists the tools and technologies Dell offers to lower power consumption and increase energy efficiency.

Topics:

- Power
- Thermal
- Acoustics

Power

Table 32. Power tools and technologies

Feature	Description
Power Supply Units(PSU) portfolio	Dell's PSU portfolio includes intelligent features such as dynamically optimizing efficiency while maintaining availability and redundancy. Find additional information in the Power supply units section.
Tools for right sizing	Enterprise Infrastructure Planning Tool (EIPT) is a tool that can help you determine the most efficient configuration possible. With Dell's EIPT, you can calculate the power consumption of your hardware, power infrastructure, and storage at a given workload. Learn more at Dell EIPT.
Industry Compliance	Dell's servers are compliant with all relevant industry certifications and guide lines, including 80 PLUS, Climate Savers and ENERGY STAR.
Power monitoring accuracy	PSU power monitoring improvements include: ● Dell's power monitoring accuracy is currently 1%, whereas the industry standard is 5% ● More accurate reporting of power
Rack infrastructure	Dell offers some of the industry's highest-efficiency power infrastructure solutions, including: ● Power distribution units (PDUs) ● Uninterruptible power supplies (UPSs) ● Energy Smart containment rack enclosures ● AC Blind Mate Find additional information at: Power and Cooling

Power Supply Units

Energy Smart power supplies have intelligent features, such as the ability to dynamically optimize efficiency while maintaining availability and redundancy. Also featured are enhanced power-consumption reduction technologies, such as high-efficiency power conversion and advanced thermal-management techniques, and embedded power-management features, including high-accuracy power monitoring. The table below shows the power supply unit options that are available for the system.

Table 33. PSU specifications

PSU	Class	Heat dissipation (maximum) (BTU/hr)	Frequency (Hz)	Input voltage	Current (A)
3200 W Titanium	Titanium	12000	50/60	200-240 Vac	16
	N/A	12000	N/A	240 Vdc	14.5

Table 33. PSU specifications (continued)

PSU	Class	Heat dissipation (maximum) (BTU/hr)	Frequency (Hz)	Input voltage	Current (A)
3200 W 277 Vac and HVDC	Titanium	12000	50/60	277 Vac	12.9
	N/A	12000	N/A	336 Vdc	10.47
2400 W Titanium	Titanium	9000	50/60	100-240 Vac	16-13.2
	N/A	9000	N/A	240 Vdc	10.9
1800 W Titanium*	Titanium	6750	50/60	200-240 Vac	9.8-8.2
	N/A	6750	N/A	240 Vdc	8.2
1500 W Titanium	Titanium	5625	50/60	100-240 Vac	12-8.2
	N/A	5625	N/A	240 Vdc	6.8
1500 W 277 Vac and HVDC	Titanium	5625	50/60	277 Vac	6.1
	N/A	5625	N/A	336 Vdc	4.91
1400 W -48 Vdc	N/A	5310	N/A	(-48)-(-60) Vdc	N/A
1100 W Titanium	Titanium	4100	50/60	100-240 Vac	12-6.1
	N/A	4100	N/A	240 Vdc	5.1
1100 W Platinum	Platinum	4100	50/60	100-240 Vac	12-6.1
	N/A	4100	N/A	240 Vdc	5.1
800 W Titanium	Titanium	3000	50/60	100-240 Vac	9.2-4.5
	N/A	3000	N/A	240 Vdc	3.7
800 W Platinum	Platinum	3000	50/60	100-240 Vac	9.2-4.5
	N/A	3000	N/A	240 Vdc	3.7

NOTE: If a system with AC 1500 W and 1100 W PSUs operates at low line 100-120 Vac, then the power rating per PSU is de-rated to 1050 W.



Figure 32. C13 power cord



Figure 33. C19 Power cord



Figure 34. C16 Power Cord

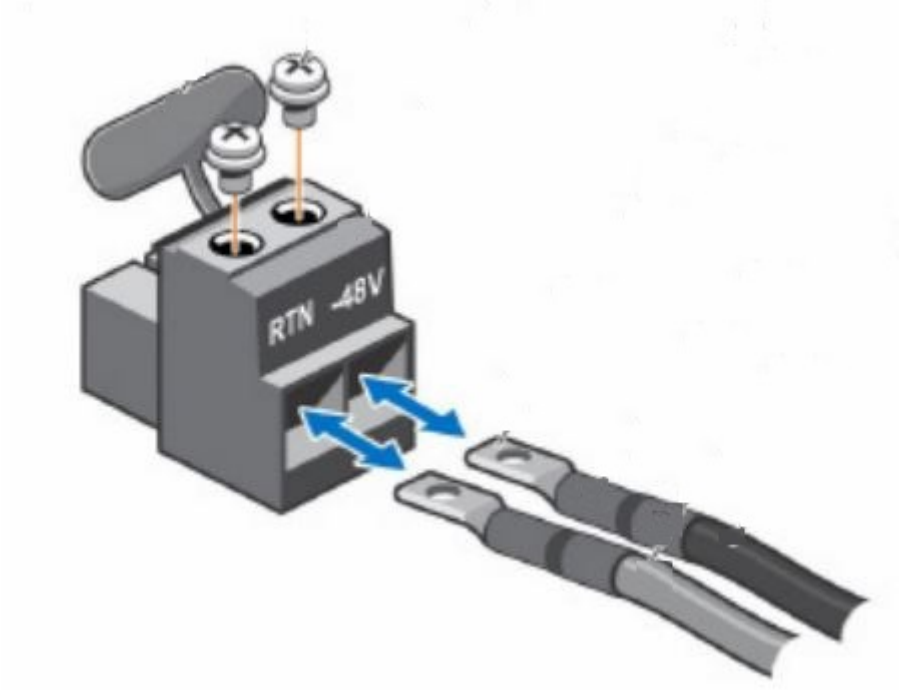


Figure 35. DC PSU power cord

Table 34. PSU power cables

Form factor	Output	Power cable
Redundant 73.5 mm	3200 W Titanium mixed mode	C19
Redundant 73.5 mm	3200 W 277 Vac and HVDC	APP/Saf-D-Grid
Redundant 73.5 mm	2400 W Titanium mixed mode	C19
Redundant 60 mm	1800 W Titanium mixed mode*	C16
Redundant 60 mm	1500 W Titanium mixed mode	C13
Redundant 60 mm	1500 W 277 Vac and HVDC	APP/Saf-D-Grid
Redundant 60 mm	1400 W -48 Telco	DC power cable
Redundant 60 mm	1100 W Titanium mixed mode	C13
Redundant 60 mm	1100 W Platinum mixed mode	C13
Redundant 60 mm	800 W Titanium mixed mode	C13
Redundant 60 mm	800 W Platinum mixed mode	C13

NOTE: This document provides a comprehensive list of product features. However, features marked with an asterisk (*) may not be available at launch but introduced in future updates. Please note that this document does not confirm the availability or release timeline of any feature. For the most accurate and up-to-date information on feature availability, please refer to the product configurator page on dell.com.

NOTE: *Feature not available at product launch in November,2025. Please refer to the product configurator page on Dell.com to confirm feature availability.

Thermal

PowerEdge servers have an extensive collection of sensors that automatically track thermal activity, which helps regulate temperature thereby reducing server noise and power consumption.

Thermal design

Thermal management of the platform helps deliver high performance with the right amount of cooling to components, while maintaining the lowest fan speeds possible. This is done across a wide range of ambient temperatures from 10°C to 35°C (50°F to 95°F) and to extended ambient temperature ranges.

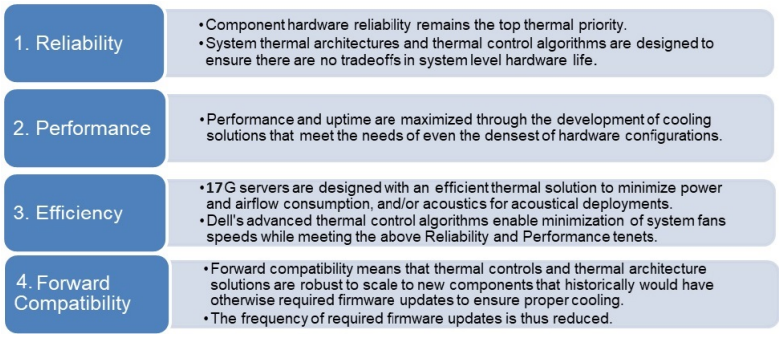


Figure 36. Thermal design characteristics

The thermal design of the PowerEdge R7725 reflects the following:

- Optimized thermal design: The system layout is architected for optimum thermal design.
- System component placement and layout are designed to provide maximum airflow coverage to critical components with minimum expense of fan power.
- Comprehensive thermal management: The thermal control system regulates the fan speed based on several different responses from all system-component temperature sensors, and inventory for system configurations. Temperature monitoring includes components such as processors, DIMMs, chipset, the inlet air ambient, hard disk drives, and OCP.
- Open and closed loop thermal fan speed control: Open loop thermal control uses system configuration to determine fan speed based on inlet air ambient temperature. Closed loop thermal control method uses feedback temperatures to dynamically determine proper fan speeds.
- User-configurable settings: With the understanding and realization that every customer has unique set of circumstances or expectations from the system. For more information, see the Dell PowerEdge R7725 Installation and Service Manual at PowerEdge Manuals and “Advanced Thermal Control: Optimizing across Environments and Power Goals” on Dell.com.
- Cooling redundancy: The R7725 allows N+1 fan redundancy, allowing continuous operation with one fan failure in the system.
- Environmental Specifications: The optimized thermal management makes the R7725 reliable under a wide range of operating environments.

Acoustics

Acoustical configurations of R7725

Dell PowerEdge R7725 is a rack or tower server appropriate for attended data center environment. However, lower acoustical output is attainable with proper hardware or software configurations.

Table 35. Configurations tested for acoustical experience

Configuration	2.5-inch	NVMe	E3.S	GPU
CPU TDP	240 W, 300 W	240 W, 300 W	320 W, 400 W	240 W, 300 W
CPU Quantity	2	2	2	2
RDIMM Memory	64 GB DDR5	96 GB DDR5	96 GB DDR5	128 GB DDR5
Memory Quantity	24	24	24	24
Backplane Type	8 x 2.5-inch 16 x 2.5-inch	24 x 2.5-inch	8 x E3.S	32 x E3.S
HDD/SSD	8 x 2.5-inch SAS/ SATA/NVMe 16 x 2.5-inch SAS/ SATA	16 x 2.5-inch SAS/ SATA + 8 x U.2 NVMe 8 x 2.5-inch SAS/ SATA/NVMe	8 x E3.S	32 x E3.S
PSU Type	1100 W	1500 W	1500 W	3200 W
PSU Quantity	2	2	2	2
BOSS	17G BOSS	17G BOSS	17G BOSS	17G BOSS
OCP	None	None	None	2 x OCP (x16) - 100 GbE
Bezel	Yes	Yes	Yes	Yes
PCI 1	N/A	N/A	N/A	2x DW Cards (Max 450W)
PCI 2	N/A	N/A	N/A	N/A
PCI 3	N/A	N/A	N/A	N/A
PERC	PERC 12	PERC 12	N/A	N/A

Table 36. Acoustical experience of R7725 configurations

Configuration		Typical - 2.5"	NVMe	E3	GPU
Acoustical Performance: Idle/ Operating @ 25 °C Ambient					
$L_{wA,m}$(B)	Idle[4]	6.1	7.4	6.1	7.4
	Operating / Customer Usage Operating [5][6]	6.6	7.4	6.7	7.4
K_v(B)	Idle[4]	0.4	0.4	0.4	0.4
	Operating / Customer	0.4	0.4	0.4	0.4

Table 36. Acoustical experience of R7725 configurations (continued)

Configuration		Typical - 2.5"	NVMe	E3	GPU
	Usage Operating (5)(6)				
$L_{pA,m}$(dB)	Idle(4)	54	60	47	60
	Operating / Customer Usage Operating (5)(6)	54	60	52	60
Prominent discrete tones (3)		Prominence ratio < 15 dB			
Acoustical Performance: Idle @ 28 °C Ambient					
$L_{wA,m}$(1)(B)		6.1	7.5	6.2	7.6
K_v (B)		0.4	0.4	0.4	0.4
$L_{pA,m}$(2)(dB)		48	60	48	61
Acoustical Performance: Max. Loading @ 35 °C Ambient					
$L_{wA,m}$(1)(B)		8.1	8.9	8.3	9.2
K_v (B)		0.4	0.4	0.4	0.4
$L_{pA,m}$(2)(dB)		64	73	69	76

LwA, m: The declared mean A-weighted sound power level (LwA) is calculated per section 5.2 of ISO 9296 (2017) with data collected using the methods that are described in ISO 7779 (2010). Engineering data presented here may not be fully compliant with the ISO 7779 declaration requirement.

LpA, m: The declared mean A-weighted emission sound pressure level is at the bystander position per section 5.3 of ISO 9296 (2017) and measured using methods that are described in ISO 7779 (2010). The system is placed in a 24U rack enclosure, 75 cm above a reflective floor. Engineering data presented here may not be fully compliant with the ISO 7779 declaration requirement.

Prominent tones: Criteria of Annex D of ECMA-74, Section 12.6, and the Prominence Ratio method of ECMA-418 are followed to determine if discrete tones are prominent and to report them, if so.

Idle mode: The steady-state condition in which the server is energized but not operating any intended function.

Operating mode: The maximum of the steady state acoustical output at 50% of CPU TDP or active storage drives per C.9.3.2 in ECMA-74 (17^{th} ed., Dec. 2019)

10

Rack, rails, and cable management

Topics:

- Rails and cable management information

Rails and cable management information

The rail offerings for the PowerEdge R7725 consist of two general types: sliding and static. The cable management offerings consist of an optional cable management arm (CMA) and an optional strain relief bar (SRB).

See the *Enterprise Systems Rail Sizing and Rack Compatibility Matrix* available at Dell Technologies Enterprise Systems Rail Sizing and Rack Compatibility Matrix for information regarding:

- Specific details about rail types.
- Rail adjustability ranges for various rack mounting flange types.
- Rail depth with and without cable management accessories.
- Rack types that are supported for various rack mounting flange types.

Key factors governing proper rail selection include the following:

- Spacing between the front and rear mounting flanges of the rack.
- Type and location of any equipment that is mounted in the back of the rack such as power distribution units (PDUs).
- Overall depth of the rack.

Sliding rails features summary

The sliding rails allow the system to be fully extended out of the rack for service. There are two types of sliding rails available, ReadyRails II sliding rails and Stab-in/Drop-in sliding rails. The sliding rails are available with or without the optional cable management arm (CMA) or strain relief bar (SRB).

B21 ReadyRails sliding rails for 4-post racks

- Supports drop-in installation of the chassis to the rails.
- Support for tool-less installation in 19" EIA-310-E compliant square or unthreaded round hole 4-post racks including all generations of the Dell racks.
- Support for tooled installation in 19" EIA-310-E compliant threaded hole 4-post racks.
- Support full extension of the system out of the rack to allow serviceability of key internal components.
- Support for optional strain relief bar (SRB).
- Support for an optional cable management arm (CMA).

> **NOTE:** For situations where CMA support is not required, the outer CMA mounting brackets can be uninstalled from the sliding rails. This reduces the overall length of the rails and eliminates the potential interference with rear-mounted PDUs or the rear rack door.

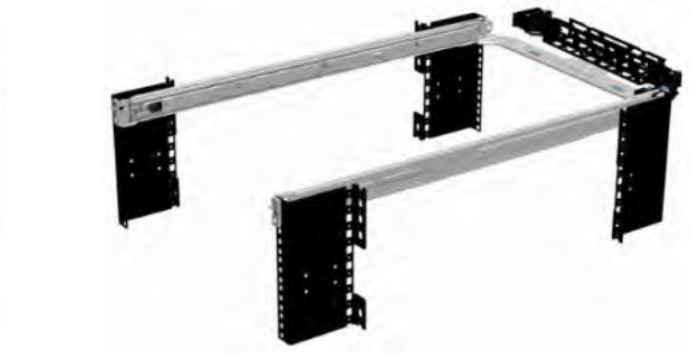


Figure 37. Sliding rails with optional CMA



Figure 38. Sliding rails with optional SRB

B22 Stab-in/Drop-in sliding rails for 4-post racks

- Supports drop-in or stab-in installation of the chassis to the rails.
- Support for tool-less installation in 19" EIA-310-E compliant square, unthreaded round hole racks including all generations of the Dell racks. Also, support tool-less installation in threaded round hole 4-post racks.
- Support for tool-less installation in Dell Titan or Titan-D racks.
- Support full extension of the system out of the rack to allow serviceability of key internal components.
- Support for an optional cable management arm (CMA).
- Support for optional strain relief bar (SRB).

NOTE: For situations where CMA support is not required, the outer CMA mounting brackets can be uninstalled from the sliding rails. This reduces the overall length of the rails and eliminates the potential interference with rear-mounted PDUs or the rear rack door.

B20 static rails summary

The static rails offer a greater adjustability range and a smaller overall mounting footprint than the sliding rails because of their reduced complexity and lack of need for CMA support. The static rails support a wider variety of racks than the sliding rails. However, they do not support serviceability in the rack and are thus not compatible with the CMA. The static rails are also not compatible with SRB.



Figure 39. Static rails

Static rails features summary

Static rails for 4-post and 2-post racks:

- Supports Stab-in installation of the chassis to the rails.
- Support tool-less installation in 19" EIA-310-E compliant square or unthreaded round hole 4-post racks including all generations of Dell racks.
- Support tooled installation in 19" EIA-310-E compliant threaded hole 4-post and 2-post racks.
- Support for tooled installation in Dell Titan or Titan-D rack.

NOTE:

- Screws are not included with the static rail kit since racks are offered with various thread types. The screws are provided for mounting static rails in racks with threaded mounting flanges.
- Screw head diameter should be 10 mm or less.

2-Post racks installation

If installing to 2-Post (Telco) racks, the ReadyRails II static rails (B20) must be used. Sliding rails support mounting in 4-post racks only.



Figure 40. Static rails in 2-post center mount configuration

Installation in the Dell Titan or Titan-D racks

For tool-less installation in the Dell Titan or Titan-D racks, the Stab-in/Drop-in sliding rails (B22) must be used. This rail collapses down sufficiently to fit in the rack with mounting flanges that are spaced about 24 inches apart from front to back. The Stab-in/Drop-in sliding rail allows bezels of the servers and storage systems to be aligned when installed in these racks. For tooled installation, Stab-in Static rails (B20) must be used for bezel alignment with storage systems.

Cable management arm (CMA)

The optional cable management arm (CMA) organizes and secures the cords and cables exiting the back of the systems. It unfolds to allow the systems to extend out of the rack without having to detach the cables. Some key features of the CMA include:

- Large U-shaped baskets to support dense cable loads.
- Open vent pattern for optimal airflow.
- Ability to mount on either side by swinging the spring-loaded brackets from one side to the other.
- Utilizes hook-and-loop straps rather than plastic tie wraps to eliminate the risk of cable damage during cycling.
- Includes a low-profile fixed tray to both support and retain the CMA in its fully closed position.
- Both the CMA and the tray mount without the use of tools by simple and intuitive snap-in designs.

The CMA can be mounted to either side of the sliding rails without the use of tools or the need for conversion. For systems with one power supply unit (PSU), it is recommended to mount on the side opposite to that of the power supply to allow easier access to it and the rear drives (if applicable) for service or replacement.

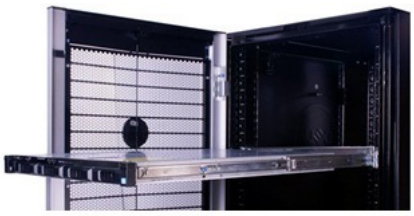


Figure 41. Sliding rails with CMA

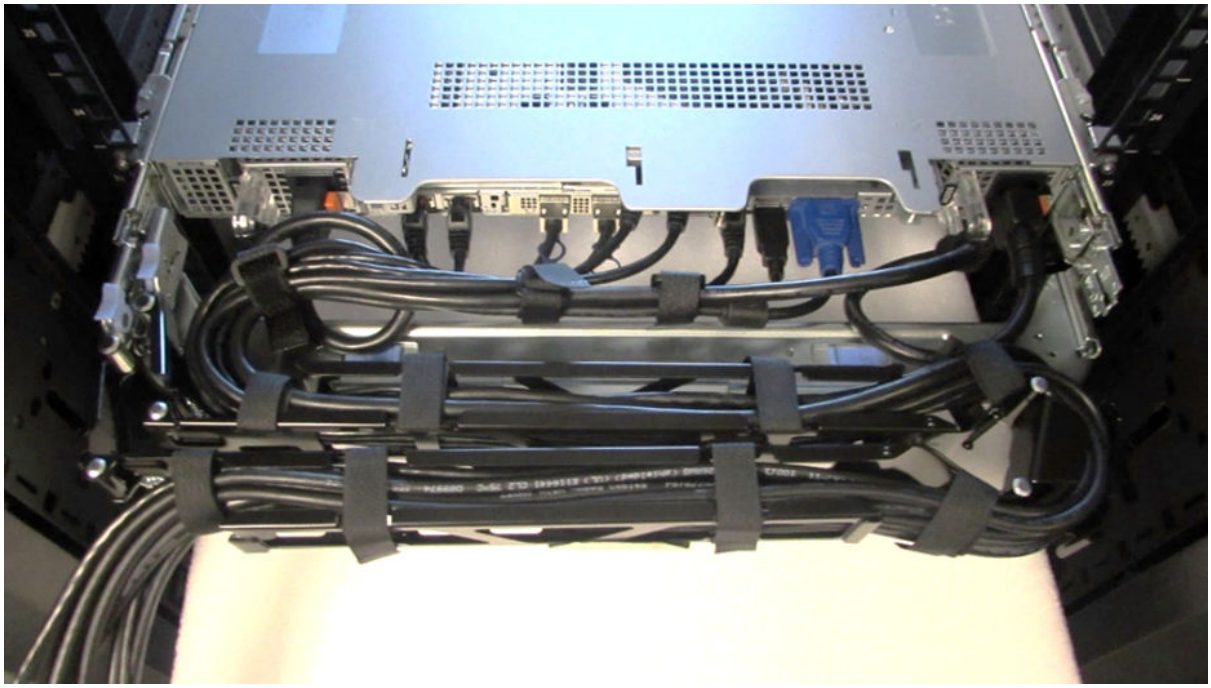


Figure 42. CMA Cabling

Strain Relief Bar (SRB)

The optional strain relief bar (SRB) for the PowerEdge R7725 organizes and supports cable connections at the rear end of the server to avoid damage from bending.

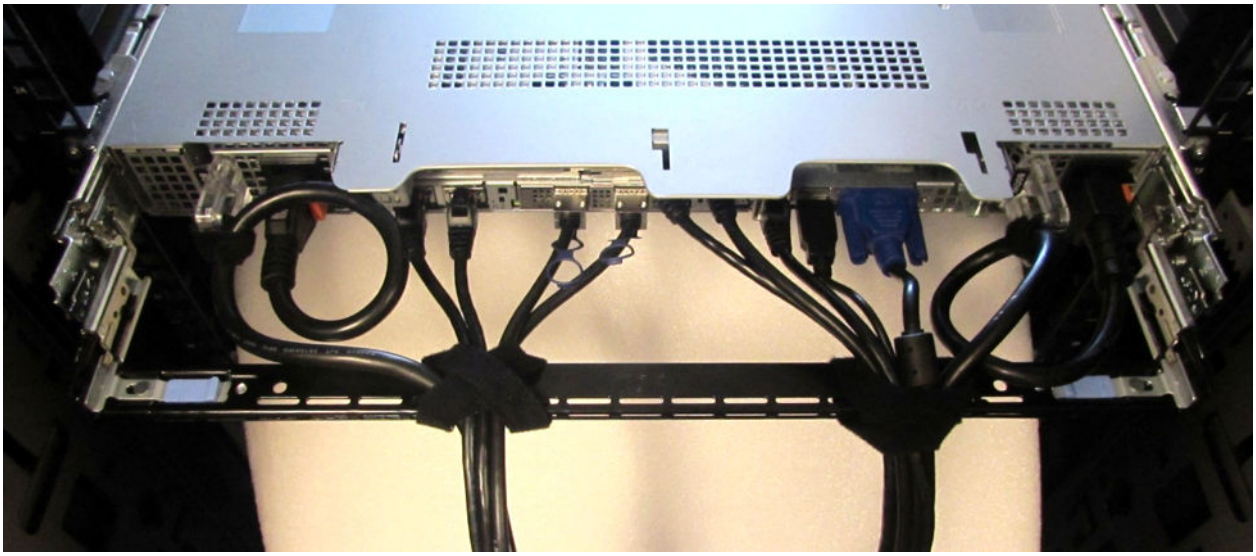


Figure 43. Cabled strain relief bar

- Tool-less attachment to the rails
- Two depth positions to accommodate various cable loads and rack depths.
- Supports cable loads and controls stresses on server connectors.
- Cables can be segregated into discrete purpose-specific bundles.

Rack Installation

Drop-in design means that the system is installed vertically into the rails by inserting the standoffs on the sides of the system into the J-slots in the inner rail members with the rails in the fully extended position. The recommended method of installation is to first insert the rear standoffs on the system into the rear J-slots on the rails to free up a hand and then rotate the system down into the remaining J-slots while using the free hand to hold the rail against the side of the system.

Stab-in design means that the inner (chassis) rail members must first be attached to the sides of the system and then inserted into the outer (cabinet) members installed in the rack.

Installing the system into the rack (option A: Drop-In)

1. Pull the inner rails out of the rack until they lock into place.



Figure 44. Pull out inner rail

2. Locate the rear rail standoff on each side of the system and lower them into the rear J-slots on the slide assemblies.
3. Rotate the system downward until all the rail standoffs are seated in the J-slots.

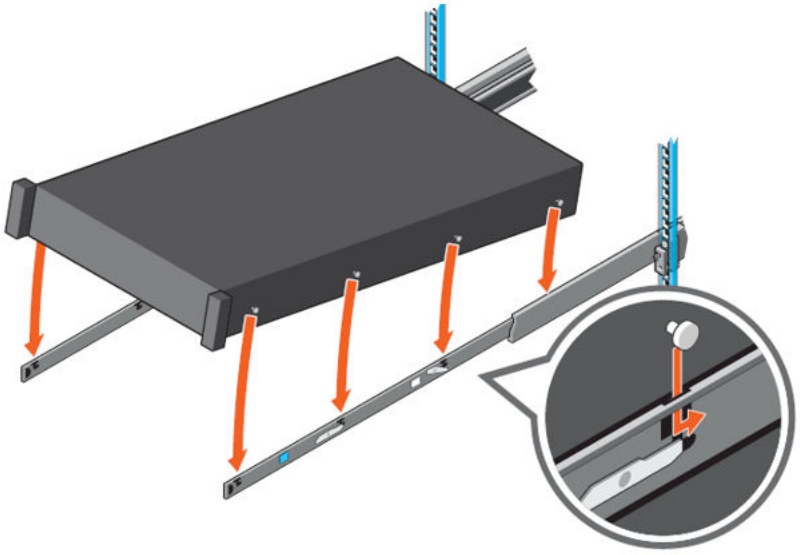


Figure 45. Rail standoffs seated in J-slots

4. Push the system inward until the lock levers click into place.
5. Pull the blue side release lock tabs forward or backward on both rails and slide the system into the rack until the system is in the rack.

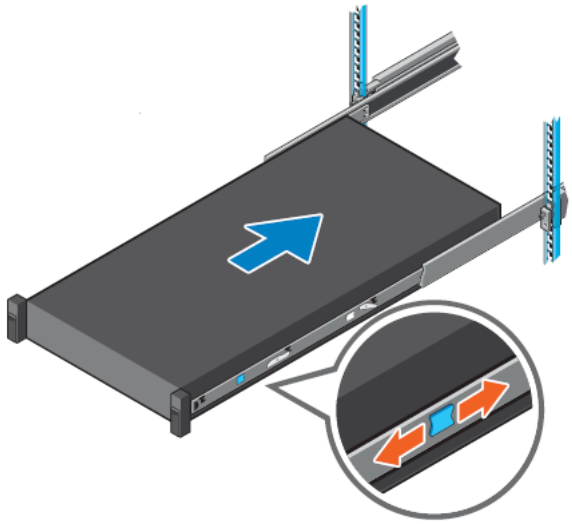


Figure 46. Slide system into the rack

Installing the system into the rack (option B: Stab-In)

1. Pull the intermediate rails out of the rack until they lock into place.
2. Release the inner rail lock by pulling forward on the white tabs and sliding the inner rail out of the intermediate rails.

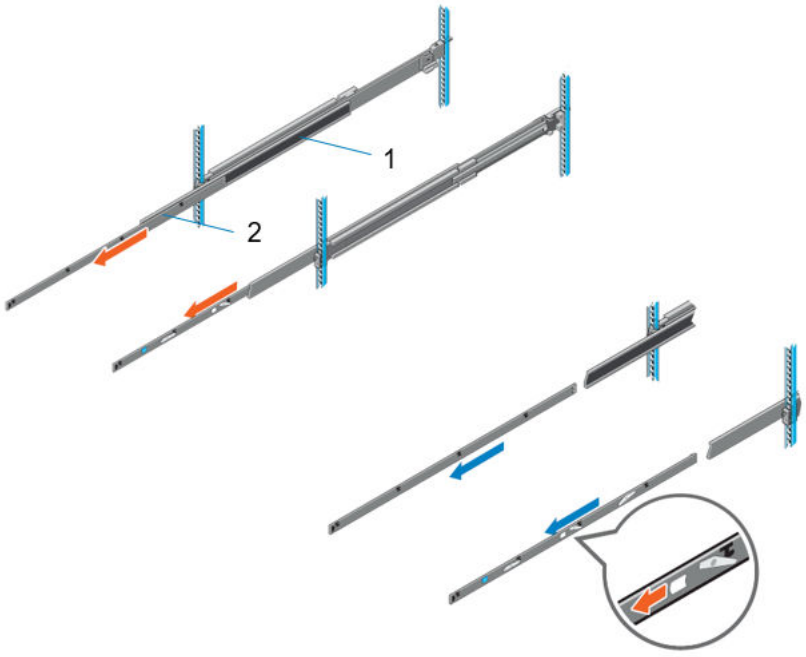


Figure 47. Pull out the intermediate rail

Table 37. Rail component label

Number	Component
1	Intermediate rail

Table 37. Rail component label (continued)

Number	Component
2	Inner rail

3. Attach the inner rails to the sides of the system by aligning the J-slots on the rail with the standoffs on the system and sliding forward on the system until they lock into place.

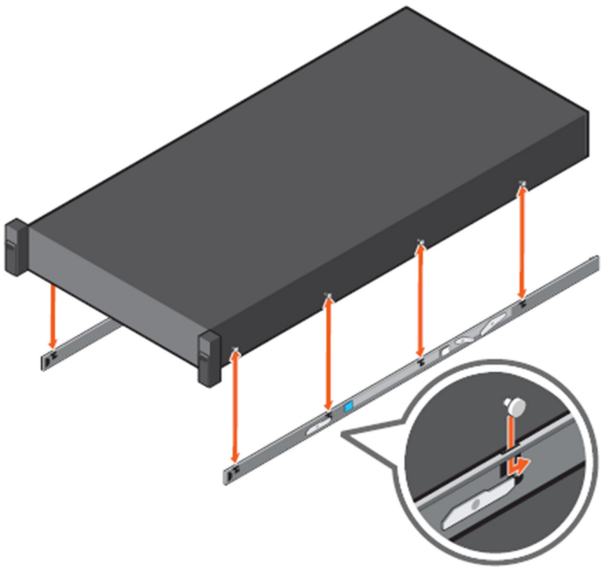


Figure 48. Attach the inner rails to the system

4. With the intermediate rails extended, install the system into the extended rails.

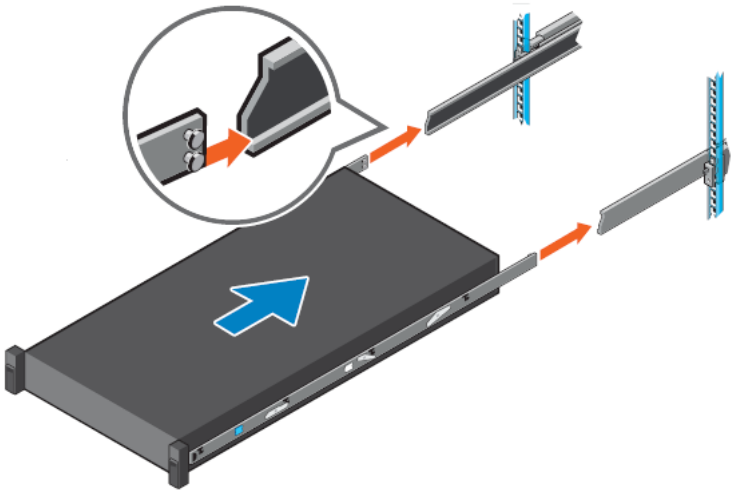


Figure 49. Install system into the extended rails

5. Pull blue slide release lock tabs forward or backward on both rails, and slide the system into the rack.

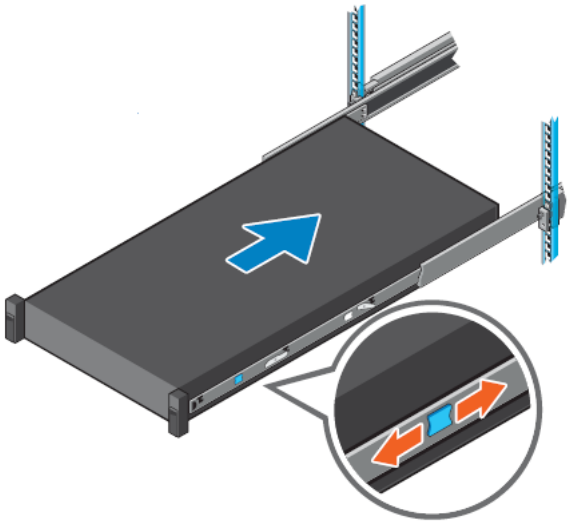


Figure 50. Slide system into the rack

11

Operating Systems and Virtualization

Topics:

- Supported operating systems

Supported operating systems

The PowerEdge R7725 system supports the following operating systems:

- Microsoft Windows Server with Hyper-V
- Canonical Ubuntu Server LTS
- Red Hat Enterprise Linux
- SUSE Linux Enterprise Server
- VMware ESXi

For specifications and interoperability details, see OS support.

12

Dell Systems Management

Dell delivers management solutions that help IT administrators deploy, update, monitor, and manage IT assets. OpenManage solutions and tools enable you to solve and respond to problems quickly by manage Dell servers efficiently in physical and remote environments, and operating in-band and out-of-band (agent-free).

The OpenManage portfolio includes innovative embedded management tools such as the integrated Dell Remote Access Controller (iDRAC) and consoles like OpenManage Enterprise, OpenManage Power Manager Plugin, and tools like Repository Manager. Dell has developed comprehensive systems management solutions that are based on open standards by connecting and/or integrating it's offers with top system management vendors and frameworks such as Ansible, Microsoft, and VMware, enabling advanced management of Dell hardware. The key tools for managing Dell PowerEdge servers are iDRAC and OpenManage Enterprise (OME) console. OpenManage Enterprise helps the system administrators with the life cycle management of multiple generations of PowerEdge servers. OME has additional functions that can be added with plugins like OpenManage Enterprise Services, Update Manager, APEX AIOps Observability (formerly CloudIQ), and Power Manager. It also offers integration with VMware vCenter and Microsoft System Center, and a set of tools, including Repository Manager, enabling easy management of PowerEdge hardware. The four main pillars of Dell systems management closely align with the issues and business challenges that are faced by many IT departments.

- Automating IT management.
  - Comprehensive automation management for reducing OPEX and increasing uptime and overall efficiency of systems.
  - Comprehensive suite of tools to automate according to your needs.
- Management made simple.
  - Simple but powerful tools for managing your Dell servers.
  - Integrated tools that streamline support engagements.
  - Innovative at-the-box management features.
- Secure by default.
  - Dell servers offer robust security defenses to prevent the next generation of malicious attacks.
  - Security is designed deep into the hardware and firmware architecture for optimal protection.
- Smarter infrastructure management.
  - It offers a next-generation 1-to-many console to manage your IT and server infrastructure.
  - Embedded intelligence that is infrastructure-aware to optimize troubleshooting and deployment.

This document provides an overview of the OpenManage Systems Management offerings to help IT administrators choose the appropriate tools to completely manage Dell PowerEdge servers.

- The latest Dell Systems Management Overview Guide.

Topics:

- Integrated Dell Remote Access Controller (iDRAC)
- Systems Management software support matrix

Integrated Dell Remote Access Controller (iDRAC)

iDRAC10 delivers advanced, agent-free, local and remote server administration. Embedded in every PowerEdge server, iDRAC10 provides a secure means to automate a multitude of common management tasks. Because iDRAC is embedded within every PowerEdge server, there is no additional software to install; plug in power and network cables, and iDRAC is ready to go. Even before installing an operating system (operating system) or hypervisor, IT administrators have a complete set of server management features at their fingertips.

With iDRAC10 in-place across the Dell PowerEdge portfolio, the same IT administration techniques and tools can be applied throughout. This consistent management platform allows scaling of PowerEdge servers as an organization's infrastructure grows. Customers can use the iDRAC RESTful API for the latest in scalable administration methods of PowerEdge servers. With this API, iDRAC enables support for the Redfish standard and enhances it with Dell extensions to optimize at-scale management of PowerEdge servers. By having iDRAC at the core, the entire OpenManage portfolio of Systems Management tools allows every customer to tailor an effective, affordable solution for any size environment.

Zero-Touch Provisioning (ZTP) is embedded in iDRAC. ZTP is an Intelligent Automation Dell's agent-free management. Once a PowerEdge server is connected to power and networking that system can be monitored and fully managed, whether you are standing in front of the server or remotely over a network. With no need for software agents, an IT administrator can:

- Monitor
- Manage
- Update
- Troubleshoot, and remediate Dell servers.

With features like zero-touch deployment and provisioning, and System Lockdown, iDRAC10 is purpose-built to simplify server administration. For those customers whose existing management platform uses in-band management, Dell does provide iDRAC Service Module, a lightweight service that can interact with both iDRAC10 and the host operating system to support legacy management platforms.

When ordered with DHCP enabled from the factory, PowerEdge servers can be automatically configured when they are initially powered up and connected to your network. This process uses profile-based configurations that ensure each server is configured per your specifications. This feature requires an iDRAC Enterprise license.

iDRAC10 offers the following license tiers:

Table 38. iDRAC10 license tiers

License	Description
iDRAC10 Core	• Available for all servers. • Core system management features for users who are cost conscious.
iDRAC10 Enterprise	• Available as an upsell on all servers. • Includes all features of Core. Also, includes additional automation features and virtual console and security features. • Bundled with Secure Enterprise Key Management (SEKM) and Secure Component Verification (SCV) licenses.
iDRAC10 Datacenter	• Available as an upsell on all servers. • Includes all features of Core and Enterprise. • Includes key features such as telemetry streaming and thermal management. • Includes advanced accelerators (GPU and DPU) system management and advanced air and liquid cooling.

For a full list of iDRAC features by license tier, see the **Integrated Dell Remote Access Controller 10 User's Guide** at Dell.com.

For more details on iDRAC10 including white papers and videos, see:

- Support for Integrated Dell Remote Access Controller 10 (iDRAC10) is on the Knowledge Base page at Dell.com

Systems Management software support matrix

Table 39. Systems Management software support matrix

Categories	Features	PE mainstream
Embedded Management	iDRAC	Supported
	iDRAC Direct	Supported
	iDRAC RESTful API with Redfish	Supported
	Racadm CLI	Supported
	iDRAC Service Module (iSM)	Supported
Change Management	Dell Repository Manager	Supported
	Dell System Update	Supported
	Enterprise Catalogs	Supported
	Server Update Utility (SUU)	Supported

Table 39. Systems Management software support matrix (continued)

Categories	Features	PE mainstream
OpenManage console	OpenManage Enterprise (OME)	Supported
	OME Power Manager	Supported
	OME Services	Supported
	OME Update Manager	Supported
	OME APEX AIOps Observability	Supported
	OME Integration for VMware vCenter (with VMware Aria Operations)	Supported
	OME integration for Microsoft System Center	Supported
	OpenManage Integration for Windows Admin Center	Supported
Mobility	OME Mobile with Quick Sync 2 wireless module	Supported
Tools	IPMI	Supported
OpenManage Integrations	Red Hat Ansible Collections	Supported
	Terraform Providers	Supported
Security	Cryptographically signed firmware	Supported
	Data at Rest Encryption (SEDs with local or external key mgmt)	Supported
	Secure Boot	Supported
	Secured Component Verification (Hardware integrity check)	Supported
	Secure Erase	Supported
	Silicon Root of Trust	Supported
	System Lockdown	Supported
	TPM 2.0 FIPS, CC-TCG certified	Supported
	Chassis Intrusion Detection	Supported
	AMD Secure Memory Encryption (SME)	Supported
	AMD Secure Encrypted Virtualization (SEV)	Supported
Operating system	Canonical Ubuntu Server LTS	Supported
	Microsoft Windows Server with Hyper-V	Supported
	Red Hat Enterprise Linux	Supported
	SUSE Linux Enterprise Server	Supported
	VMware ESXi	Supported
	SUSE Linux Enterprise Server	Supported

13

Appendix A: Additional specifications

Topics:

- Chassis dimensions
- System weight
- NIC port specifications
- DPU Specifications
- Video specifications
- USB Ports
- PSU rating
- Environmental specifications

Chassis dimensions

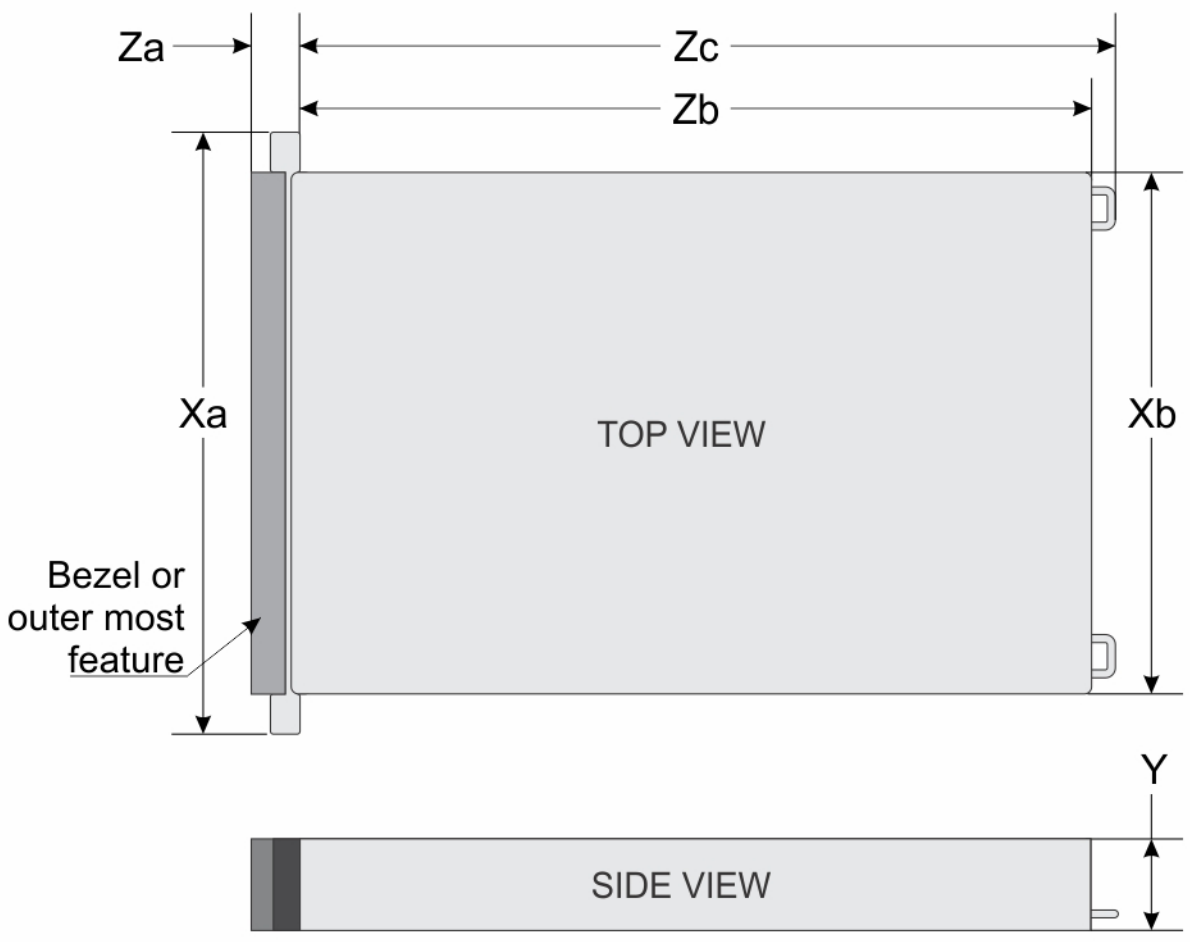


Figure 51. Chassis dimensions

Table 40. PowerEdge R7725 chassis dimensions

Drives	Xa	Xb	Y	Za	Zb	Zc
All configurations	482.0 mm (18.98 inches)	434.0 mm (17.09 inches)	86.8 mm (3.42 inches)	30.78 mm (1.21 inches)With bezel 29.89 mm (1.18 inches)Without bezel	700.7 mm (27.59 inches) Ear to rear wall	771.62 mm (30.38 inches) Ear to PSU handle

NOTE: Zb is the nominal rear wall external surface where the HPM board I/O connectors reside.

System weight

Table 41. PowerEdge R7725 system weight

System configuration	Maximum weight (with all drives/SSDs)
No backplane configuration	25.1 kg (55.34 lb)
8 x 2.5-inch Universal	27.5 kg (60.63 lb)
12 x 3.5-inch SAS/SATA	36.1 kg (69.67 lb)
16 x 2.5-inch SAS/SATA	29.3 kg (64.59 lb)
16 x 2.5-inch SAS/SATA + 8 x U.2 or 2.5-inch NVMe RAID	28.74 kg (63.36 lb)
24 x 2.5-inch SAS/SATA	31.8 kg (70.11 lb)
16 x EDSFF E3.S Gen5 NVMe	25.47 kg (56.15 lb)
8 x EDSFF E3.S Gen5 NVMe	24.33 kg (53.64 lb)
32 x EDSFF E3.S Gen5 NVMe	31.14 kg (68.65 lb)
40 x EDSFF E3.S Gen5 NVMe	29.92 kg (65.96 lb)

Table 42. PowerEdge R7725 weight handling recommendations

Chassis weight	Description
40–70 lb	Recommend two people to lift.
70–120 lb	Recommend three people to lift.
≥ 121 lb	Recommend to use a server-lift.

NIC port specifications

The PowerEdge R7725 system supports one 10/100/1000 Mbps BMC Ethernet, up to eight PCIe Add-in cards, up to two fiber channel HBA cards, and two optional Open Compute Project (OCP) cards.

Table 43. NIC port specification for the system

Feature	Specifications
Datacenter-Secure Control Module (DC-SCM)	1 GbE x 2
OCP NIC 3.0 card	200 GbE x 2 (configurable as 400 GbE x 1), 100 GbE x 2, 25 GbE x 2, 25 GbE x 4, 10 GbE x 2, 1 GbE x 4, 10 GbE x 4
PCIe Add-in Card (AIC) NIC	200 GbE x 2 (configurable as 400 GbE x 1), 100 GbE x 2, 25 GbE x 2

Table 43. NIC port specification for the system (continued)

Feature	Specifications
Fiber channel HBA	FC64, FC32

DPU Specifications

The PowerEdge R7725 platform accommodates Data Processing Units (DPUs). These units are system-on-chip solutions that combine ARM cores, high-performance NICs, and programmable acceleration engines to offload and accelerate data center infrastructure services.

Table 44. Supported Data Processing Units(DPU) Cards

Feature	NVIDIA BlueField-3 2x200 GbE B3220	NVIDIA BlueField-3 1x400 GbE B3140H *
Type	Data Processing Units (DPU)	Data Processing Units (DPU)
Networking	2 x 200 GbE	1x400 GbE
Form Factor	FHHL	FHHL
Interface	PCIe Gen5 x16	PCIe Gen5 x16
Power Consumption	150 W	75 W
Compatible Risers	RC 2(Slots2,7), RC 3(Slots2,7), RC 4(Slots 2,7), RC 5(Slots2,7), RC 8(Slots2,7)	TBD

NOTE: This document provides a comprehensive list of product features. However, features marked with an asterisk (*) may not be available at launch but introduced in future updates. Please note that this document does not confirm the availability or release timeline of any feature. For the most accurate and up-to-date information on feature availability, please refer to the product configurator page on dell.com.

NOTE: * Feature not available at product launch in November,2025. Please refer to the product configurator page on Dell.com to confirm feature availability.

Video specifications

Table 45. Supported video resolution options

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

USB Ports

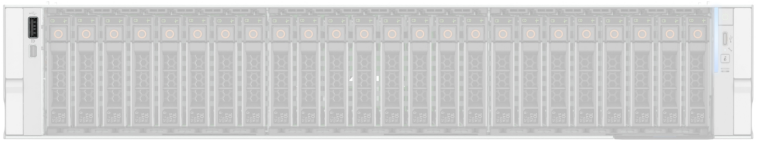


Figure 52. Front USB Port

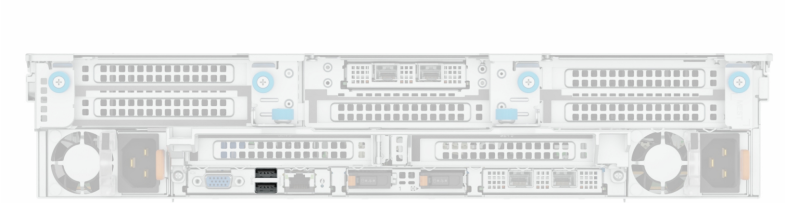


Figure 53. Rear USB Port

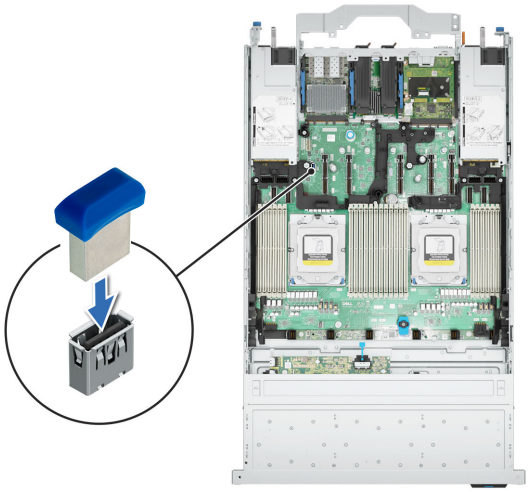


Figure 54. Internal USB Port

Table 46. Systems USB Specifications

Front		Rear		Internal	
USB port type	**No. of ports**	**USB port type**	**No. of ports**	**USB port type**	**No. of ports**
USB 2.0 Type-A (optional LCP KVM)	1	USB 3.1 Type-A	1	USB x.3.1 Type-A	1
USB 2.0 Type-C (HOST/BMC Direct)	1	USB 3.1 Type-A	1		

PSU rating

Below table lists the power capacity of the PSUs in high/low line operation mode.

Table 47. PSU highline and lowline rating

PSU	Class	Output power while					
		AC input			HVDC input		
		High Line 200-240 V	Low Line 100-120 V	Extended HL 277 V	240 V	Extended 336 V	LVDC -48 V
3200 W 277 Vac and HVDC	Titanium	N/A	N/A	3200 W	N/A	N/A	N/A
	N/A	N/A	N/A	N/A	N/A	3200 W	N/A
3200 W Titanium	Titanium	2900 W @ 200-240 V 3200 W @ 220.1-240 V	N/A	N/A	N/A	N/A	N/A
	N/A	N/A	N/A	N/A	3200 W	N/A	N/A
2400 W Titanium	Titanium	2400 W	1400 W	N/A	N/A	N/A	N/A
	N/A	N/A	N/A	N/A	2400 W	N/A	N/A
1800 W Titanium*	Titanium	1800 W	N/A	N/A	N/A	N/A	N/A
	N/A	N/A	N/A	N/A	1800 W	N/A	N/A
1500 W 277 Vac and HVDC	N/A	N/A	N/A	1500 W	N/A	N/A	N/A
	N/A	N/A	N/A	N/A	N/A	1500 W	N/A
1500 W Titanium	Titanium	1500 W	1050 W	N/A	N/A	N/A	N/A
	N/A	N/A	N/A	N/A	1500 W	N/A	N/A
1400 W -48 Vdc	N/A	N/A	N/A	N/A	N/A	N/A	1400 W
1100 W Platinum	N/A	N/A	N/A	N/A	1100 W	N/A	N/A
	Platinum	1100 W	1050 W	N/A	N/A	N/A	N/A
1100 W Titanium	N/A	N/A	N/A	N/A	1100 W	N/A	N/A
	Titanium	800 W	800 W	N/A	N/A	N/A	N/A
800 W Platinum	N/A	N/A	N/A	N/A	800 W	N/A	N/A
	Platinum	800 W	800 W	N/A	N/A	N/A	N/A
800 W Titanium	N/A	N/A	N/A	N/A	800 W	N/A	N/A
	Titanium	N/A	800 W	N/A	N/A	N/A	N/A

The PowerEdge R7725 supports up to two AC power supplies with 1+1 redundancy, autosensing, and auto switching capability.

If two PSUs are present during POST, a comparison is made between the wattage capacities of the PSUs. In case the PSU wattages do not match, the larger of the two PSUs is enabled. Also, there is a PSU mismatch warning that is displayed in the BIOS or iDRAC.

If a second PSU is added at run-time, in order for that particular PSU to be enabled, the wattage capacity of the first PSU must equal the second PSU. Otherwise, the PSU is identified as unmatched in iDRAC and the second PSU is not enabled.

Dell PSUs have achieved Platinum efficiency levels as shown in the table below.

Table 48. PSU efficiency level

Efficiency Targets by Load						
Form factor	**Output**	**Class**	**10%**	**20%**	**50%**	**100%**
Redundant 73.5 mm	3200 W 277 Vac and HVDC	Titanium	90.00%	94.00%	96.00%	91.00%
Redundant 73.5 mm	3200 W mixed mode	Titanium	90.00%	94.00%	96.00%	91.00%
Redundant 60 mm	2400 W	N/A	N/A	N/A	N/A	N/A
Redundant 60 mm	1800 W*	N/A	N/A	N/A	N/A	N/A
Redundant 60 mm	1500 W 277 Vac and HVDC	Titanium	90.00%	94.00%	96.00%	91.00%
Redundant 60 mm	1500 W mixed mode	Titanium	90.00%	94.00%	96.00%	91.00%
Redundant 60 mm	1400 W HVDC	N/A	N/A	N/A	N/A	N/A
Redundant 60 mm	1100 W mixed mode	Titanium	90.00%	94.00%	96.00%	91.00%
Redundant 60 mm	1100 W mixed mode	Platinum	N/A	90.00%	94.00%	91.00%
Redundant 60 mm	800 W mixed mode	Titanium	90.00%	94.00%	96.00%	91.00%
Redundant 60 mm	800 W mixed mode	Platinum	N/A	90.00%	94.00%	91.00%

NOTE: * Feature not available at product launch in November,2025. Please refer to the product configurator page on Dell.com to confirm feature availability.

Environmental specifications

NOTE: For additional information about environmental certifications, refer to the Product Environmental Datasheet located with the **Manuals & Documents** on Dell Support.

Table 49. Continuous Operation Specifications for ASHRAE A2

Parameters	Allowable continuous operations
Temperature range for altitudes <= 900 m (<= 2953 ft)	10–35°C (50–95°F) with no direct sunlight on the equipment
Humidity percent range (non-condensing at all times)	8% RH with -12°C minimum dew point to 80% RH with 21°C (69.8°F) maximum dew point
Operational altitude de-rating	Maximum temperature is reduced by 1°C/300 m (1.8°F/984 Ft) above 900 m (2953 Ft)

Table 50. Continuous Operation Specifications for ASHRAE A3

Parameters	Allowable continuous operations
Temperature range for altitudes <= 900 m (<= 2953 ft)	5–40°C (41–104°F) with no direct sunlight on the equipment
Humidity percent range (non-condensing at all times)	8% RH with -12°C minimum dew point to 85% RH with 24°C (75.2°F) maximum dew point
Operational altitude de-rating	Maximum temperature is reduced by 1°C/175 m (1.8°F/574 Ft) above 900 m (2953 Ft)

Table 51. Continuous Operation Specifications for ASHRAE A4

Parameters	Allowable continuous operations
Temperature range for altitudes <= 900 m (<= 2953 ft)	5–45°C (41–113°F) with no direct sunlight on the equipment
Humidity percent range (non-condensing at all times)	8% RH with -12°C minimum dew point to 90% RH with 24°C (75.2°F) maximum dew point
Operational altitude de-rating	Maximum temperature is reduced by 1°C/125 m (1.8°F/410 Ft) above 900 m (2953 Ft)

Table 52. Common Environmental Specifications for ASHRAE A2, A3, and A4

Parameters	Allowable continuous operations
Maximum temperature gradient (applies to both operation and non-operation)	20°C in an hour* (36°F in an hour) and 5°C in 15 minutes (9°F in 15 minutes), 5°C in an hour* (9°F in an hour) for tape **NOTE:** * - Per ASHRAE thermal guidelines for tape hardware, these are not instantaneous rates of temperature change.
Non-operational temperature limits	• -40°C to 65°C (-40°F to 149°F) applicable for air cooling configuration • -40°C to -5°C (-40°F to 23°F**) applicable for DLC configuration **NOTE:** ** Liquid filled components, or systems/solutions containing liquid filled components are limited to approximately 5°C above their freeze point. At this time the only authorized liquid coolant is Recohem PG25 with a freeze point between -9°C and -13°C, therefore the lower non-operational temperature limit is -5°C. Components and systems/solutions that can contain liquid but do not at the time of testing shall be tested to the -40°C lower non-operational temperature limit.
Non-operational humidity limits	5% to 95% RH with 27°C (80.6°F) maximum dew point
Maximum non-operational altitude	12,000 meters (39,370 ft)
Maximum operational altitude	3,048 meters (10,000 ft)

Table 53. Maximum vibration specifications

Maximum vibration	Specifications
Operating	0.21 G_{rms} at 5 Hz to 500 Hz for 10 min (all x, y, and z axes)
Storage	1.38 G_{rms} at 7 Hz to 250 Hz for 15 minutes (all six sides tested)

Table 54. Maximum shock pulse specifications

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

Thermal air restrictions

Fresh air environment

- Two PSUs are required in redundant mode, however a single PSU failure is not supported.
- PCIe SSD is not supported.
- GPU and FPGA are not supported.
- CPU TDP equal or greater than 180 W are not supported.

- Rear drives are not supported.
- Non-Dell qualified peripheral cards and/or peripheral cards greater than 25 W are not supported.

Table 55. Air cooling configuration thermal restriction for AHSRAE A2, A3, and A4 - No backplane configuration

ASHRAE	A2	A3/40°C (104 °F)	A4/45°C (113 °F)
CPU	T-wing HSK and HPR platinum fan are required for CPU >401 W.	CPUs > 240 W are not supported.	CPUs > 195 W are not supported.
PSU	N/A	Two PSUs are required in redundant mode. If there is a PSU failure, system performance may be reduced.	
PCIe card	N/A	Non-Dell qualified peripheral cards and peripheral cards greater than 25 W are not supported.	
GPU/FPGA	N/A	Not supported	
DIMM	N/A	DIMMs ≥ 64 GB are not supported.	
OCP	N/A	Supported with 85 °C (185 °F) active optic cable.	OCP NICs are not supported. 85°C active optics or DAC cable is required.
BOSS	N/A	N/A	BOS-N1 is not supported.

Table 56. Air cooling configuration thermal restriction for AHSRAE A2, A3, and A4 - 8 x 2.5-inch Universal drive configuration

ASHRAE	A2	A3/40 °C (104 °F)	A4/45 °C (113 °F)
CPU	T-wing HSK and HPR platinum fan are required for CPU >401 W.	CPUs > 240 W are not supported.	CPUs > 195 W are not supported.
PSU	N/A	Two PSUs are required in redundant mode. If there is a PSU failure, system performance may be reduced.	
PCIe card	N/A	Non-Dell qualified peripheral cards and peripheral cards greater than 25 W are not supported.	
NVMe	N/A	Not supported	
GPU/FPGA	N/A	Not supported	
DIMM	N/A	DIMMs ≥ 64 GB are not supported.	
OCP	N/A	Supported with 85 °C (185 °F) active optic cable.	OCP NICs are not supported. 85 °C active optics or DAC cable is required.
BOSS	N/A	N/A	BOS-N1 is not supported.

Table 57. Air cooling configuration thermal restriction for AHSRAE A2, A3, and A4 - 16 x 2.5-inch Universal drive configuration

ASHRAE	A2	A3/40 °C (104 °F)	A4/45 °C (113 °F)
CPU	T-wing HSK and HPR platinum fan are required for CPU >401 W.	CPUs > 240 W are not supported.	CPUs > 195 W are not supported.
PSU	N/A	Two PSUs are required in redundant mode. If there is a PSU failure, system performance may be reduced.	

Table 57. Air cooling configuration thermal restriction for AHSRAE A2, A3, and A4 - 16 x 2.5-inch Universal drive configuration (continued)

ASHRAE	A2	A3/40 °C (104 °F)	A4/45 °C (113 °F)
PCIe card	N/A	Non-Dell qualified peripheral cards and peripheral cards greater than 25 W are not supported.	
GPU/FPGA	N/A	Not supported	
DIMM	N/A	DIMMs ≥ 64 GB are not supported.	
OCP	N/A	Supported with 85 °C (185 °F) active optic cable.	OCP NICs are not supported. 85 °C active optics or DAC cable is required.
BOSS	N/A	N/A	BOS-N1 is not supported.

Table 58. Air cooling configuration thermal restriction for AHSRAE A2, A3, and A4 - 32 x EDSFF E3.S Gen5 NVMe drive configuration

ASHRAE	A2	A3/40°C (104 °F)	A4/45°C (113 °F)
CPU	T-wing HSK and HPR platinum fan are required for CPU >401 W.	Not supported	Not supported
DIMM	DIMM ≥ 96G are not supported.	Not supported	

Table 59. Liquid cooling configuration thermal restriction for AHSRAE A2, A3, and A4 - All storage configuration

ASHRAE	A2	A3/40 °C (104 °F)	A4/45 °C (113 °F)
CPU	T-wing HSK and HPR platinum fan are required for CPU >401 W.	N/A	N/A
PSU	N/A	Two PSUs are required in redundant mode. If there is a PSU failure, system performance may be reduced.	
PCIe card	N/A	Non-Dell qualified peripheral cards and peripheral cards greater than 25 W are not supported.	
GPU/FPGA	N/A	Not supported	
DIMM	N/A	DIMMs ≥ 64 GB are not supported.	
Drives	N/A	E3.S drives are not supported.	NVMe and E3.S drives are not supported.
OCP	N/A	Supported with 85 °C (185 °F) active optic cable.	OCP NICs are not supported. 85 °C active optics or DAC cable is required.
BOSS	N/A	N/A	BOS-N1 is not supported.

Other thermal restrictions

- 25 Gb and above 25 Gb PCIe/OCP cards require DAC or 85 °C active optics, M14MK (SFP28) or 4WGYD(QSFP+).
- L4 GPU: NG3PY(FH) / V9XT2(LP) slot restriction.
- C05 with RC3: Slot 3 , 9 only.

Thermal restriction matrix

Table 60. Label reference

Label	Description
STD	Standard
HPR (Silver)	High performance Silver (HPR SLVR) fan
HPR (Gold)	High performance Gold (HPR GOLD) fan
HSK	Heat sink
LP	Low profile
FH	Full height
DLC	Direct Liquid Cooling

Table 61. Processor and heat sink matrix

Heat sink	Processor TDP
STD HSK	< 180 W
2U HPR HSK	>= 180 W
T-wing HSK	Supports all TDP (system should be installed with GPU/ FGPA/long PCIe cards)

NOTE: The configuration's ambient temperature is dictated by its critical component. For example, if the processor's ambient temperature is 35°C, the DIMM is 35°C, and the GPU is 30°C, the configuration's ambient temperature can only be 30°C.

Table 62. CPU thermal restriction matrix for air cooling configuration

Configuration						16x2.5"SAS +8xNVMe		16xE 3.S	8xE3.S		32xE 3.S	16x2.5"SAS		8x2. 5" Univ ersal	No BP	
Shroud						CPU ≤400 W regul ar shro ud, CPU 500 W T-wing shro ud	DW GPU shro ud	CPU ≤400 W regul ar shro ud, CPU 500 W T-wing shro ud	CPU ≤400 W regul ar shro ud, CPU 500 W T-wing shro ud	DW GPU shro ud	CPU ≤400 W regul ar shro ud, CPU 500 W T-wing shro ud	CPU ≤400 W regul ar shro ud, CPU 500 W T-wing shro ud	DW GPU shro ud	CPU ≤400 W regul ar shro ud, CPU 500 W T-wing shro ud	CPU ≤400 W regul ar shro ud, CPU 500 W T-wing shro ud	DW GPU shro ud
DW GPU (riser config RC4)						No	Yes	No	No	Yes	No	No	Yes	No	No	Yes
PPCM config						C05-01, 02, 03	C05-02, 03	C07-01	C06-01		C08-01	C02-01, 02		C04-02	C0	
GPU group	TDP (W)	cTDP (W)	Model	Core count	Production OPN											
C	125	120-155	9015	8	100-000001553	Standard HSK HPR Slvr Fan	1U T-type HSK HPR Pltm Fan	Standard HSK HPR Gold Fan	Standard HSK HPR Gold Fan	1U T-type HSK HPR Pltm Fan	Standard HSK HPR Gold Fan	Standard HSK HPR Slvr Fan	1U T-type HSK HPR Pltm Fan	Standard HSK HPR Slvr Fan	Standard HSK HPR Slvr Fan	1U T-type HSK HPR Pltm Fan

Table 62. CPU thermal restriction matrix for air cooling configuration (continued)

Configuration						16x2.5"SAS +8xNVMe		16xE 3.S	8xE3.S		32xE 3.S	16x2.5"SAS		8x2. 5" Univ ersal	No BP	
Shroud						CPU ≤400 W regul ar shro ud, CPU 500 W T-wing shro ud	DW GPU shro ud	CPU ≤400 W regul ar shro ud, CPU 500 W T-wing shro ud	CPU ≤400 W regul ar shro ud, CPU 500 W T-wing shro ud	DW GPU shro ud	CPU ≤400 W regul ar shro ud, CPU 500 W T-wing shro ud	CPU ≤400 W regul ar shro ud, CPU 500 W T-wing shro ud	DW GPU shro ud	CPU ≤400 W regul ar shro ud, CPU 500 W T-wing shro ud	CPU ≤400 W regul ar shro ud, CPU 500 W T-wing shro ud	DW GPU shro ud
DW GPU (riser config RC4)						No	Yes	No	No	Yes	No	No	Yes	No	No	Yes
PPCM config						C05-01, 02, 03	C05-02, 03	C07-01	C06-01		C08-01	C02-01, 02		C04-02	C0	
GPU group	TDP (W)	cTDP (W)	Model	Core count	Production OPN											
	125	120-155	9115	16	100-000001552	Standard HSK HPR Slvr Fan	1U T-type HSK HPR Pltm Fan	Standard HSK HPR Gold Fan	Standard HSK HPR Gold Fan	1U T-type HSK HPR Pltm Fan	Standard HSK HPR Gold Fan	Standard HSK HPR Slvr Fan	1U T-type HSK HPR Pltm Fan	Standard HSK HPR Slvr Fan	Standard HSK HPR Slvr Fan	1U T-type HSK HPR Pltm Fan
B	210	200-240	9335	32	100-000001149	Standard HSK HPR Slvr Fan	1U T-type HSK HPR Pltm Fan	Standard HSK HPR Gold Fan	Standard HSK HPR Gold Fan	1U T-type HSK HPR Pltm Fan	Standard HSK HPR Gold Fan	Standard HSK HPR Slvr Fan	1U T-type HSK HPR Pltm Fan	Standard HSK HPR Slvr Fan	Standard HSK HPR Slvr Fan	1U T-type HSK HPR Pltm Fan
	200	200-240	9255	24	100-000000694	Standard HSK HPR Slvr Fan	1U T-type HSK HPR Pltm Fan	Standard HSK HPR Gold Fan	Standard HSK HPR Gold Fan	1U T-type HSK HPR Pltm Fan	Standard HSK HPR Gold Fan	Standard HSK HPR Slvr Fan	1U T-type HSK HPR Pltm Fan	Standard HSK HPR Slvr Fan	Standard HSK HPR Slvr Fan	1U T-type HSK HPR Pltm Fan
	200	200-240	9135	16	100-000001150	Standard HSK HPR Slvr Fan	1U T-type HSK HPR Pltm Fan	Standard HSK HPR Gold Fan	Standard HSK HPR Gold Fan	1U T-type HSK HPR Pltm Fan	Standard HSK HPR Gold Fan	Standard HSK HPR Slvr Fan	1U T-type HSK HPR Pltm Fan	Standard HSK HPR Slvr Fan	Standard HSK HPR Slvr Fan	1U T-type HSK HPR Pltm Fan
A	280	240-300	9355	32	100-000001148	Standard HSK HPR Slvr Fan	1U T-type HSK HPR Pltm Fan	Standard HSK HPR Gold Fan	Standard HSK HPR Gold Fan	1U T-type HSK HPR Pltm Fan	Standard HSK HPR Gold Fan	Standard HSK HPR Slvr Fan	1U T-type HSK HPR Pltm Fan	Standard HSK HPR Slvr Fan	Standard HSK HPR Slvr Fan	1U T-type HSK HPR Pltm Fan

Table 62. CPU thermal restriction matrix for air cooling configuration (continued)

Configuration						16x2.5"SAS +8xNVMe		16xE 3.S	8xE3.S		32xE 3.S	16x2.5"SAS		8x2.5" Universal	No BP	
Shroud						CPU ≤400 W regular shroud, CPU 500 W T-wing shroud	DW GPU shroud	CPU ≤400 W regular shroud, CPU 500 W T-wing shroud	CPU ≤400 W regular shroud, CPU 500 W T-wing shroud	DW GPU shroud	CPU ≤400 W regular shroud, CPU 500 W T-wing shroud	CPU ≤400 W regular shroud, CPU 500 W T-wing shroud	DW GPU shroud	CPU ≤400 W regular shroud, CPU 500 W T-wing shroud	CPU ≤400 W regular shroud, CPU 500 W T-wing shroud	DW GPU shroud
DW GPU (riser config RC4)						No	Yes	No	No	Yes	No	No	Yes	No	No	Yes
PPCM config						C05-01, 02, 03	C05-02, 03	C07-01	C06-01		C08-01	C02-01, 02		C04-02	C0	
GPU group	TDP (W)	cTDP (W)	Model	Core count	Production OPN											
E	320	320-400	9175F	16	100-000001145	Standard HSK HPR Gold Fan	**1U T-type HSK HPR Pltm Fan	Standard HSK HPR Gold Fan	Standard HSK HPR Gold Fan	1U T-type HSK HPR Pltm Fan	Standard HSK HPR Gold Fan	Standard HSK HPR Slvr Fan	**1U T-type HSK HPR Pltm Fan	Standard HSK HPR Slvr Fan	Standard HSK HPR Slvr Fan	1U T-type HSK HPR Pltm Fan
	320	320-400	9275F	24	100-000001144	Standard HSK HPR Gold Fan	DLC only	Standard HSK HPR Gold Fan	Standard HSK HPR Gold Fan	**1U T-type HSK HPR Pltm Fan	Standard HSK HPR Gold Fan	Standard HSK HPR Slvr Fan	DLC only	Standard HSK HPR Slvr Fan	Standard HSK HPR Slvr Fan	**1U T-type HSK HPR Pltm Fan
	320	320-400	9375F	32	100-000001197	Standard HSK HPR Gold Fan	**1U T-type HSK HPR Pltm Fan	Standard HSK HPR Gold Fan	Standard HSK HPR Gold Fan	1U T-type HSK HPR Pltm Fan	Standard HSK HPR Gold Fan	Standard HSK HPR Slvr Fan	**1U T-type HSK HPR Pltm Fan	Standard HSK HPR Slvr Fan	Standard HSK HPR Slvr Fan	1U T-type HSK HPR Pltm Fan
	360	320-400	9475F	48	100-000001143	Standard HSK HPR Gold Fan	**1U T-type HSK HPR Pltm Fan	Standard HSK HPR Gold Fan	Standard HSK HPR Gold Fan	1U T-type HSK HPR Pltm Fan	Standard HSK HPR Gold Fan	Standard HSK HPR Slvr Fan	**1U T-type HSK HPR Pltm Fan	Standard HSK HPR Slvr Fan	Standard HSK HPR Slvr Fan	1U T-type HSK HPR Pltm Fan
	360	320-400	9555	64	100-000001142	Standard HSK	**1U T-type HSK	Standard HSK	Standard HSK	1U T-type HSK	Standard HSK	Standard HSK	**1U T-type HSK	Standard HSK	Standard HSK	1U T-type HSK

Table 62. CPU thermal restriction matrix for air cooling configuration (continued)

Configuration						16x2.5"SAS +8xNVMe		16xE 3.S	8xE3.S		32xE 3.S	16x2.5"SAS		8x2. 5" Univ ersal	No BP	
Shroud						CPU ≤400 W regul ar shro ud, CPU 500 W T-wing shro ud	DW GPU shro ud	CPU ≤400 W regul ar shro ud, CPU 500 W T-wing shro ud	CPU ≤400 W regul ar shro ud, CPU 500 W T-wing shro ud	DW GPU shro ud	CPU ≤400 W regul ar shro ud, CPU 500 W T-wing shro ud	CPU ≤400 W regul ar shro ud, CPU 500 W T-wing shro ud	DW GPU shro ud	CPU ≤400 W regul ar shro ud, CPU 500 W T-wing shro ud	CPU ≤400 W regul ar shro ud, CPU 500 W T-wing shro ud	DW GPU shro ud
DW GPU (riser config RC4)						No	Yes	No	No	Yes	No	No	Yes	No	No	Yes
PPCM config						C05-01, 02, 03	C05-02, 03	C07-01	C06-01		C08-01	C02-01, 02		C04-02	C0	
GPU group	TDP (W)	cTDP (W)	Model	Core count	Production OPN											
						HPR Gold Fan	HPR Pltm Fan	HPR Gold Fan	HPR Gold Fan	HPR Pltm Fan	HPR Gold Fan	HPR Slvr Fan	HPR Pltm Fan	HPR Slvr Fan	HPR Slvr Fan	HPR Pltm Fan
	320	320-400	9575F	64	100-000001554	Standard HSK HPR Gold Fan	**1U T-type HSK HPR Pltm Fan	Standard HSK HPR Gold Fan	Standard HSK HPR Gold Fan	1U T-type HSK HPR Pltm Fan	Standard HSK HPR Gold Fan	Standard HSK HPR Slvr Fan	**1U T-type HSK HPR Pltm Fan	Standard HSK HPR Slvr Fan	Standard HSK HPR Slvr Fan	1U T-type HSK HPR Pltm Fan
	400	320-400	9655	96	100-000000674	Standard HSK HPR Gold Fan	**1U T-type HSK HPR Pltm Fan	Standard HSK HPR Gold Fan	Standard HSK HPR Gold Fan	1U T-type HSK HPR Pltm Fan	Standard HSK HPR Gold Fan	Standard HSK HPR Slvr Fan	**1U T-type HSK HPR Pltm Fan	Standard HSK HPR Slvr Fan	Standard HSK HPR Slvr Fan	1U T-type HSK HPR Pltm Fan
	400	320-400	9745	128	100-000001460	Standard HSK HPR Gold Fan	**1U T-type HSK HPR Pltm Fan	Standard HSK HPR Gold Fan	Standard HSK HPR Gold Fan	1U T-type HSK HPR Pltm Fan	Standard HSK HPR Gold Fan	Standard HSK HPR Slvr Fan	**1U T-type HSK HPR Pltm Fan	Standard HSK HPR Slvr Fan	Standard HSK HPR Slvr Fan	1U T-type HSK HPR Pltm Fan
	390	320-400	9825	144	100-000000837	Standard HSK HPR Gold Fan	**1U T-type HSK HPR Pltm Fan	Standard HSK HPR Gold Fan	Standard HSK HPR Gold Fan	1U T-type HSK HPR Pltm Fan	Standard HSK HPR Gold Fan	Standard HSK HPR Slvr Fan	**1U T-type HSK HPR Pltm Fan	Standard HSK HPR Slvr Fan	Standard HSK HPR Slvr Fan	1U T-type HSK HPR Pltm Fan

Table 62. CPU thermal restriction matrix for air cooling configuration (continued)

Configuration						16x2.5"SAS +8xNVMe		16xE 3.S	8xE3.S		32xE 3.S	16x2.5"SAS		8x2. 5" Univ ersal	No BP	
Shroud						CPU ≤400 W regul ar shro ud, CPU 500 W T-wing shro ud	DW GPU shro ud	CPU ≤400 W regul ar shro ud, CPU 500 W T-wing shro ud	CPU ≤400 W regul ar shro ud, CPU 500 W T-wing shro ud	DW GPU shro ud	CPU ≤400 W regul ar shro ud, CPU 500 W T-wing shro ud	CPU ≤400 W regul ar shro ud, CPU 500 W T-wing shro ud	DW GPU shro ud	CPU ≤400 W regul ar shro ud, CPU 500 W T-wing shro ud	CPU ≤400 W regul ar shro ud, CPU 500 W T-wing shro ud	DW GPU shro ud
DW GPU (riser config RC4)						No	Yes	No	No	Yes	No	No	Yes	No	No	Yes
PPCM config						C05-01, 02, 03	C05-02, 03	C07-01	C06-01		C08-01	C02-01, 02		C04-02	C0	
GPU group	TDP (W)	cTDP (W)	Model	Core count	Production OPN											
	390	320-400	9845	160	100-000001458	Standard HSK HPR Gold Fan	**1U T-type HSK HPR Pltm Fan	Standard HSK HPR Gold Fan	Standard HSK HPR Gold Fan	1U T-type HSK HPR Pltm Fan	Standard HSK HPR Gold Fan	Standard HSK HPR Slvr Fan	**1U T-type HSK HPR Pltm Fan	Standard HSK HPR Slvr Fan	Standard HSK HPR Slvr Fan	1U T-type HSK HPR Pltm Fan
G	500	450-500	9965	192	100-000000976	1U T-type HSK HPR Pltm Fan	DLC only	1U T-type HSK HPR Pltm Fan	1U T-type HSK HPR Pltm Fan	DLC only	1U T-type HSK HPR Pltm Fan	1U T-type HSK HPR Pltm Fan	DLC only	1U T-type HSK HPR Pltm Fan	1U T-type HSK HPR Pltm Fan	DLC only
	500	450-500	9755	128	100-000001443	1U T-type HSK HPR Pltm Fan	DLC only	1U T-type HSK HPR Pltm Fan	1U T-type HSK HPR Pltm Fan	DLC only	1U T-type HSK HPR Pltm Fan	1U T-type HSK HPR Pltm Fan	DLC only	1U T-type HSK HPR Pltm Fan	1U T-type HSK HPR Pltm Fan	DLC only

Table 63. Memory thermal restriction matrix for air cooling configuration

Configuration	16x2.5"SAS+8xNVMe	16xE3.S	8xE3.S	32xE3.S	16x2.5"SAS	8x2.5" Universal	No BP
32 GB RDIMM	Supported at 35°C						
64 GB RDIMM	Supported at 35°C						
96 GB RDIMM	Supported at 35°C						

Table 63. Memory thermal restriction matrix for air cooling configuration (continued)

Configuration	16x2.5"SAS+8xNVMe		16xE3.S	8xE3.S	32xE3.S	16x2.5"SAS		8x2.5" Universal	No BP	
128 GB RDIMM	HPR Gold Fan	Supported at 35°C				HPR Gold Fan	Supported at 35°C	HPR Gold Fan	HPR Gold Fan	Supported at 35°C
256 GB RDIMM	TBD	TBD	Supported at 35°C			TBD	TBD	HPR Gold Fan	HPR Gold Fan	Supported at 35°C

Table 64. GPU thermal restriction matrix for air cooling configuration

GPU	TDP (W)	16x2.5"SAS+8x NVMe		16xE3.S	8xE3.S		32xE3.S	16x2.5"SAS		8x2.5" Universal	No BP	
L4 24 GB	72	**HPR Gold fan	Supported at 35°C		HPR Gold fan	Supported at 35°C		HPR Gold fan	Supported at 35°C	HPR Gold fan	HPR Gold fan	Supported at 35°C
H100 NVL 94 GB	400	TBD	Supported at 35°C	TBD	TBD	Supported at 35°C	TBD	TBD	Supported at 35°C	TBD	TBD	Supported at 35°C
H200 NVL 141G	450	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
NVIDIA RTX Pro 6000 BSE	450	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
L40s 48 GB	350	TBD	Supported at 35°C	TBD	TBD	Supported at 35°C	TBD	TBD	Supported at 35°C	TBD	TBD	Supported at 35°C
A16 64 GB	250	TBD	Supported at 35°C	TBD	TBD	Supported at 35°C	TBD	TBD	Supported at 35°C	TBD	TBD	Supported at 35°C

NOTE: RTX Pro 6000 & H200 NVL will operate with a power cap of 450W, not 600W.

NOTE: ** Components that support max 30°C.

NOTE: Components without ** support max 35°C.

NOTE: Three fan modules are required for a single processor, and six fan modules are required for a dual processor system.

Table 65. CPU thermal restriction matrix for liquid cooling configuration

Configuration						16x2.5"SAS +8xNVMe		16xE 3.S	8xE3.S		32xE 3.S	16x2.5"SAS		8x2. 5" Univ ersal	No BP	
Shroud						CPU ≤400 W regul ar shro ud, CPU 500 W T-wing shro ud	DW GPU shro ud	CPU ≤400 W regul ar shro ud, CPU 500 W T-wing shro ud	CPU ≤400 W regul ar shro ud, CPU 500 W T-wing shro ud	DW GPU shro ud	CPU ≤400 W regul ar shro ud, CPU 500 W T-wing shro ud	CPU ≤400 W regul ar shro ud, CPU 500 W T-wing shro ud	DW GPU shro ud	CPU ≤400 W regul ar shro ud, CPU 500 W T-wing shro ud	CPU ≤400 W regul ar shro ud, CPU 500 W T-wing shro ud	DW GPU shro ud
DW GPU (riser config RC4)						No	Yes	No	No	Yes	No	No	Yes	No	No	Yes
PPCM config						C05-01, 02, 03	C05-02, 03	C07-01	C06-01		C08-01	C02-01, 02		C04-02	C0	
GPU group	TDP (W)	cTDP (W)	Model	Core count	Production OPN											
All CPU SKUs						Standard HSK HPR Slvr Fan	1U T-type HSK HPR Pltm Fan	Standard HSK HPR Gold Fan	Standard HSK HPR Gold Fan	1U T-type HSK HPR Pltm Fan	Standard HSK HPR Gold Fan	Standard HSK HPR Slvr Fan	1U T-type HSK HPR Pltm Fan	Standard HSK HPR Slvr Fan	Standard HSK HPR Slvr Fan	1U T-type HSK HPR Pltm Fan

Table 66. Memory thermal restriction matrix for liquid cooling configuration

Configuration	16x2.5"SAS+8xNVMe	16xE3.S	8xE3.S	32xE3.S	16x2.5"SAS	8x2.5" Universal	No BP
32 GB RDIMM	Supported at 35°C						
64 GB RDIMM	Supported at 35°C						
96 GB RDIMM	Supported at 35°C						
128 GB RDIMM	HPR Gold Fan	Supported at 35°C		HPR Gold Fan	Supported at 35°C	HPR Gold Fan	HPR Gold Fan	Supported at 35°C
256 GB RDIMM	TBD	TBD	Supported at 35°C	TBD	TBD	HPR Gold Fan	HPR Gold Fan	Supported at 35°C

Table 67. GPU thermal restriction matrix for liquid cooling configuration

GPU	TDP (W)	16x2.5"SAS+8x NVMe		16xE3. S	8xE3.S		32xE3. S	16x2.5"SAS		8x2.5" Univer sal	No BP	
L4 24 GB	72	**HPR Gold fan	Supported at 35°C	Supported at 35°C	Supported at 35°C	Supported at 35°C		Supported at 35°C	**HPR Gold fan	**HPR Gold fan	Supported at 35°C	Supported at 35°C

Table 67. GPU thermal restriction matrix for liquid cooling configuration (continued)

GPU	TDP (W)	16x2.5"SAS+8x NVMe		16xE3.S	8xE3.S		32xE3.S	16x2.5"SAS		8x2.5" Universal	No BP	
H100 NVL 94GB	400	N/A	Supported at 35°C	N/A	N/A	Supported at 35°C	N/A	N/A	Supported at 35°C	N/A	N/A	Supported at 35°C
H200 NVL 141G	450	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
NVIDIA RTX Pro 6000 BSE	450	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
L40S 48GB	350	N/A	Supported at 35°C	N/A	N/A	Supported at 35°C	N/A	N/A	Supported at 35°C	N/A	N/A	Supported at 35°C
A16 64GB	250	N/A	Supported at 35°C	N/A	N/A	Supported at 35°C	N/A	N/A	Supported at 35°C	N/A	N/A	Supported at 35°C

NOTE: RTX Pro 6000 & H200 NVL will operate with a power cap of 450W, not 600W.

NOTE: ** Components that support max 30°C.

NOTE: Low Profile and Full Height T4 cards are installed in order to support maximum 6 pcs T4 in x 16 slots.

NOTE: All GPU/FGPA cards require 1U L-type HSK and GPU shroud.

NOTE: Puck cable is required to support the NVIDIA RTX Pro 6000

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Appendix B. Standards compliance

The system conforms to the following industry standards.

Table 68. Industry standard documents

Standard	URL for information and specifications
ACPIAdvance Configuration and Power Interface Specification, v6.4	ACPI
Ethernet IEEE Std 802.3-2022	IEEE Standards
MSFT WHQL Microsoft Windows Hardware Quality Labs	Windows Hardware Compatibility Program
IPMI Intelligent Platform Management Interface, v2.0	IPMI
DDR5 Memory DDR5 SDRAM Specification	DDR5 SDRAM
PCI Express PCI Express Base Specification, v5.0	PCIe specifications
PMBus Power System Management Protocol Specification, v1.2	PMBus specifications
SMBIOS System Management BIOS Reference Specification, v3.3.0	DMTF SMBIOS
TPM Trusted Platform Module Specification, v2.0	TPM specifications
UEFI Unified Extensible Firmware Interface Specification, v2.7	UEFI specifications
PI Platform Initialization Specification, v1.7	
USB Universal Serial Bus v2.0 and SuperSpeed v3.0 (USB 3.1 Gen1)	USB document library
NVMe Express Base Specification. Revision 2.0c	NVMe specifications
NVMe Command Set Specifications 1. NVM Express NVM Command Set Specification. Revision 1.1c 2. NVM Express Zoned Namespaces Command Set. Revision 1.0c 3. NVM Express® Key Value Command Set. Revision 1.0c	
NVMe Transport Specifications 1. NVM Express over PCIe Transport. Revision 1.0c 2. NVM Express RDMA Transport Revision. 1.0b 3. NVM Express TCP Transport. Revision 1.0c	
NVMe NVM Express Management Interface. Revision 1.2c	
NVMe NVMe Boot Specification. Revision 1.0	

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Appendix C: Additional resources

Table 69. Additional resources

Resource	Description of contents	Location
Installation and Service Manual	This manual, available in PDF format, provides the following information: • Chassis features • System Setup program • System indicator codes • System BIOS • Remove and replace procedures • Diagnostics • Jumpers and connectors	Dell.com/Support/Manuals
Getting Started Guide	This guide ships with the system, and is also available in PDF format. This guide provides the following information: • Initial setup steps	Dell.com/Support/Manuals
Rack Installation Guide	This document ships with the rack kits, and provides instructions for installing a server in a rack.	Dell.com/Support/Manuals
System Information Label	The system information label documents the HPM board layout and system jumper settings. Text is minimized due to space limitations and translation considerations. The label size is standardized across platforms.	Inside the system chassis cover
MyDell label	This code on the chassis can be scanned by a phone application to access additional information and resources for the server, including videos, reference materials, service tag information, and Dell contact information.	Inside the system chassis cover
Enterprise Infrastructure Planning Tool (EIPT)	The Dell online EIPT enables easier and more meaningful estimates to help you determine the most efficient configuration possible. Use EIPT to calculate the power consumption of your hardware, power infrastructure, and storage.	Dell.com/calc

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Appendix D: Services

Topics:

- Why attach service contracts
- ProSupport Infrastructure Suite
- Specialty Support Services
- ProDeploy Infrastructure Suite
- Supplemental Deployment Services
- Unique Deployment Scenarios
- DAY 2 – Automation Services with Ansible
- Dell Technologies Consulting Services
- Dell Technologies Consulting Services

Why attach service contracts

Dell PowerEdge servers include a standard hardware warranty that highlights our commitment to product quality by guaranteeing repair or replacement of defective components. While industry-leading, our warranties are limited to 1 or 3 years, depending on model, and do not cover software assistance. Call records show that customers are most often seeking Dell technical support for software related issues like configuration guidance, troubleshooting, upgrade assistance or performance tuning. Encourage customers to purchase ProSupport service contracts to supplement warranty coverage and ensure optimal support for both hardware and software. ProSupport provides a complete hardware guarantee beyond the original warranty period.

ProSupport Infrastructure Suite

ProSupport Infrastructure Suite is a set of support services that enable customers to build the solution that is right for their organization. It is an industry-leading, enterprise-class support that aligns with the criticality of your systems, the complexity of your environment, and the allocation of your IT resources.

Figure 55. ProSupport Enterprise Suite

	Basic Hardware Support[1]	ProSupport	BEST ProSupport Plus
Outcome Assistance and Advocacy *via assigned Technical Customer Success Manager* ⓘ			
Enjoy a frictionless customer experience with cross-functional lifecycle management aligned to your goals			✓
Accelerate time-to-value through onboarding assistance, education and success planning			✓
Turn challenges into opportunities with actionable strategies powered by data and AI-driven analytics			✓
Ensure coverage continuity while preparing to scale for future success			✓
Proactive Monitoring & Actionable Insights *via Dell's connectivity solutions and tools*			
Quickly visualize performance through a current system health score		✓	✓
Cybersecurity monitoring and mitigation recommendations provide another layer of protection		✓	✓
Predictive performance and capacity analysis address bottlenecks		✓	✓
Prevent or plan for downtime with predictive hardware anomaly detection		✓	✓
Energy consumption and carbon footprint forecasting support sustainability and stewardship initiatives		✓	✓
Get ahead of problems with proactive issue detection with automated case creation	✓	✓	✓
Streamline internal IT efforts with efficient service request and escalation management tools	✓	✓	✓
Minimize disruptions by self-dispatching eligible parts	✓	✓	✓
Support Essentials			
Receive an assigned incident manager for Sev 1 issues who will work your issue through to resolution		✓	✓
Count on Mission Critical Support during Sev 1 incidents and natural disasters ⓘ			✓
Keep systems code current and performing at peak through Proactive System Maintenance			✓
Get priority access to senior technical support engineers—skip the queues and callbacks			✓
Bringing your own software? We provide limited 3rd party software support ⓘ			✓
Choose onsite parts delivery and labor response that meets your needs	Next Business Day	NBD or 4-hour	4-hour
Select product coverage that best augments your internal resources	Hardware	Hardware & Software	Hardware & Software
Have an issue? We are here for you by phone, chat and online	Local business hours	24/7/365	24/7/365

ProSupport Plus for Infrastructure

ProSupport Plus for Infrastructure is the ultimate solution for customers seeking preventative maintenance and optimal performance on their business-critical assets. The service caters to customers who require proactive, predictive, and personalized support for systems that manage critical business applications and workloads. When customers purchase PowerEdge server, we recommend ProSupport Plus, our proactive and preventative support service for business-critical systems. ProSupport Plus provides all the benefits of ProSupport, including the following "Top five reasons to buy ProSupport Plus (PSP)"

1. **Priority access to specialized support experts:** Immediate advanced troubleshooting from an engineer that understands Dell infrastructure solutions.
2. **Mission Critical Support:** When critical (Severity 1) support issues happen, the customer is assured that we do all that we can to get them back up and running as quickly as possible.
3. **Technical Customer Success Manager:** A customer's #1 support advocate, ensuring they get the best possible proactive and predictive support experience.
4. **Systems maintenance:** On a semiannual basis, we will keep a customer's ProSupport Plus system(s) up to date by installing the latest firmware, BIOS, and driver updates to improve performance and availability.
5. **Third-party software support:** Dell is a customer's single point of accountability for any eligible third-party software that is installed on their ProSupport Plus system, whether they purchased the software from us or not.

ProSupport for Infrastructure

Comprehensive 24x7 support for hardware and software – best for production, but not critical, workloads and applications. The ProSupport service offers highly trained experts around the clock and around the globe to address IT needs. We help minimize disruptions and maximize availability of PowerEdge server workloads with:

- 24x7 support through phone, chat and online
- A central point of accountability for all hardware and software issues
- Hypervisor, operating system, and application support
- Dell security advisories

- Onsite response service levels 4 hour or Next Business Day options
- Proactive issue detection with automated case creation
- Predictive hardware anomaly detection
- Incident Manager assigned for Severity 1 cases
- Collaborative third-party support
- Access to AIOps Platforms - (MyService360, TechDirect, and CloudIQ)
- Consistent experience regardless of where customers are located or what language that they speak.

Basic Hardware Support

Provides reactive hardware support during normal business hours, excluding local national holidays. No software support or software-related guidance. For improved levels of support, choose ProSupport or ProSupport Plus.

Specialty Support Services

Optional specialty support services complement the ProSupport Infrastructure Suite to provide additional proficiencies that are critical for modern data center operations.

Hardware coverage add-ons to ProSupport or ProSupport Plus

- **Keep Your Hard Drive (KYHD), Keep Your Component (KYC), or Keep Your GPU (KYGPU):**

  Normally if a device fails under warranty, Dell replaces it using a one-for-one exchange process.KYHD/KYCC/KYGPU gives you the option to retain your device. It provides full control of sensitive data and minimizes security risk by letting you retain possession of failed drives, components, or GPU when receiving replacement parts without incurring additional cost.
- **Onsite Diagnosis Service:**

  Ideal for sites with non-technical staff. Dell field technician performs initial troubleshooting diagnosis onsite and transfers to Dell remote engineers to resolve the issue.
- **ProSupport Add-on for HPC:**

  Sold as an add-on to a ProSupport service contract, the ProSupport Add-on for HPC provides solution-aware support to cover the additional requirements that are required to maintain an HPC environment such as:

  - Access to senior HPC experts
  - Advanced HPC cluster assistance: Performance, interoperability, and configuration
  - Enhanced HPC solution level end-to-end support
  - Remote pre-support engagement with HPC Specialists during ProDeploy implementation
- **ProSupport Add-on for Telco (Respond & Restore):**

  An add-on service designed for the top 31 TELCO customers globally, Respond & Restore provides direct access to Dell solution experts who specialize in TELCO carrier-grade support. This add-on also provides a hardware uptime guarantee, meaning if a system fails, Dell has it installed and operational within 4 hours for Severity 1 issues. Dell incurs penalties and fees if SLAs are not met.

Personalized Support and Supplemental Site-wide Expertise

- **Technical Account Manager:**

  Designated technology lead who monitors and manages the performance and configuration of specific technology sets.
- **Designated Remote Support:**

  Personalized support expert who manages all troubleshooting and resolution of IT assets.
- **Multivendor Support Service:**

  Support your third-party devices as one service plan for servers, storage, and networking (includes coverage for: Broadcom, Cisco, Fujitsu, HPE, Hitachi, Huawei, IBM, Lenovo, NetApp, Oracle, Quanta, SuperMicro and others).

Services for large enterprises

- **ProSupport One for Data Center:**

  ProSupport One for Data Center offers flexible site-wide support for large and distributed data centers with more than 1,000 assets (combined total of server, storage, networking, so forth). This offering is built on standard ProSupport features that leverage our global scale and are tailored to specific customer needs. While not for everyone, this service option offers a truly unique solution for our largest customers with the most complex environments.

  - Team of assigned Services Account Managers with remote or onsite options
  - Assigned technical and field engineers who are trained on the customer's environment and configurations.
  - On-demand reporting and recommendations that are enabled by ProSupport AIOps tools (MyService360, TechDirect, and CloudIQ)
  - Flexible onsite support and parts options that fit their operational model
  - A tailored support plan and training for their operations staff
- **ProSupport One for Data Center – CSP (Cloud Serviced Provider) and AI Solution**

  ProSupport One for Data Center – CSP and AI Solution is a unique offer that is designed for a limited set of Dell accounts purchasing AI computing solutions greater than 1,000 servers and $250M in sales. PS1DC - CSP and AI improves the entire services experience combining support, deployment (rack integration), residency services, a designated support engineer, an onsite service engineer, and an onsite parts service as one holistic offer. Special pricing has been determined to compete effectively against competitors and provide the best customer experience. PS1DC for CSP and AI can only be sold with XE Servers and all networking platforms (Dell and NVIDIA). All other products would be eligible for the standard PS1DC, not this unique offer. More details on PS1DC for CSP and AI here.
- **Onsite Parts Service (OPS)**

  Ideal for large organizations that have their own staff to support their data center. Dell offers a service that is called Onsite Parts Service (OPS) from Dell Services. OPS manages parts inventory located at the customer's designated facility. The Logistics Online Inventory Solution (LOIS) program will use software to support the monitoring and automatic replenishment of inventory stored on the customer site. . Each replacement part would automatically initiate a replenishment of the parts inventory that is shipped the next day or delivered onsite by Dell during a regular scheduled visit (called Scheduled Onsite Service). As part of the LOIS system, customers can integrate their systems directly to Dell TechDirect using APIs to help streamline the support management process.

End-of-Life Services

- **Post Standard Support (PSS)**

  Extend service life beyond the initial seven years of ProSupport, adding up to five more additional years of hardware coverage.
- **Data Sanitization & Data Destruction**

  Renders data unrecoverable on repurposed or retired products, ensuring security of sensitive data and enabling compliance and provides NIST-compliant certification.
- **Asset Recovery Services**

  Recycle, resale, and disposal of hardware. Helps you securely and responsibly retire IT assets that are no longer needed while protecting both your business and the planet.

ProDeploy Infrastructure Suite

ProDeploy Infrastructure Suite provides various deployment offerings that satisfy a customer's unique needs. It is made up of various sub-offers: Factory Configuration Services, Rack Integration, Basic Deployment, ProDeploy, ProDeploy Plus, and optionally ProDeploy FLEX which allows for some customization of the features listed.

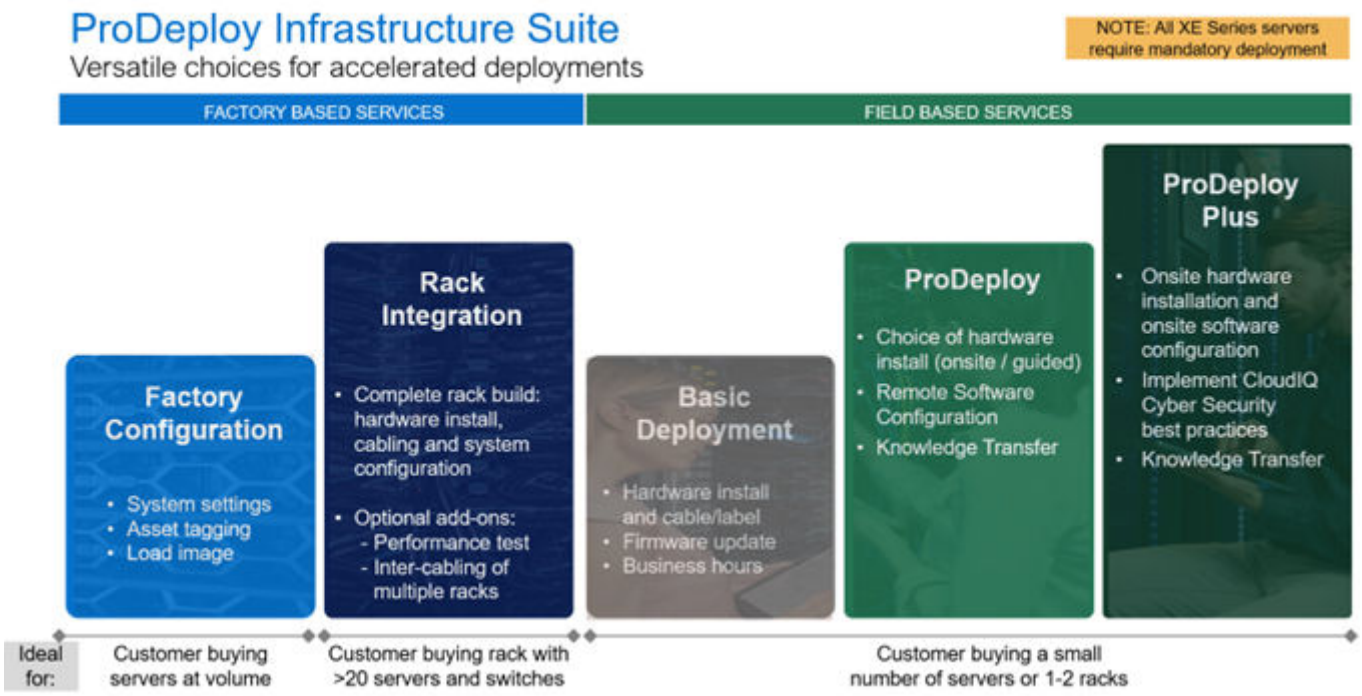


Figure 56. ProDeploy Infrastructure Suite

Factory-based Services

Pre-configured systems or complete racks, customized prior to shipping to the customer's site.

Customer Rack Integration or ProDeploy FLEX Rack Integration

Dell offers robust custom rack integration services through two main programs: Enterprise Rack Integration Services and Integrated Rack Scalable Systems (IRSS). These services are designed to streamline deployment, reduce complexity, and optimize performance for data centers, edge environments, and AI workloads. These factory services are purchased as a custom engagement or as ProDeploy Flex Rack Integration SKUs.

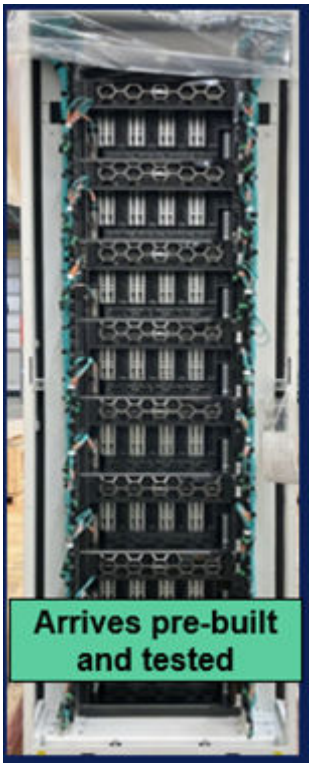


Figure 57. Pre-configured system



Figure 58. Pre-configured system

Factory Configuration

Ideal for customers buying servers in volume and seeking pre-configuration prior to shipping such as: custom image, system settings, and asset tagging so it arrives ready to use out of the box. Furthermore, servers are packaged and bundled to meet specific shipping and distribution requirements for each customer location to facilitate the rollout process. Once the server is onsite, Dell can install and configure the server to the environment using any of the field-based deployment services outlined in the next section.

Field-based services

Put PowerEdge servers to work faster with Dell field-based deployment services. Whether we are deploying one server to one thousand – we have you covered. Dell provides versatile delivery options to fit every budget and operating model.

- **ProDeploy Plus:** Elevate Infrastructure deployments with our most complete service from planning through onsite hardware installation and software configuration including the implementation of cybersecurity best practices. ProDeploy Plus provides the skill and scale that is needed to successfully execute demanding deployments in today's complex IT environments. The deployment starts with a site readiness review and implementation plan. Certified deployment experts perform the software configuration to include setup of leading operating systems and hypervisors. Dell will also configure PowerEdge software tools to include iDRAC and OpenManage system utilities as well as support AIOps platforms: MyService360, TechDirect, and

CloudIQ. Unique to ProDeploy Plus, the cybersecurity implementation helps customers understand potential security risks and make recommendations for reducing product attack surfaces. The system is tested, validated prior to completion. The customer will also receive full project documentation and knowledge transfer to complete the process.

- **ProDeploy:** ProDeploy provides remote software configuration and choice of hardware installation (onsite or guided). ProDeploy is great for customers who are price sensitive or willing to participate in some portion of the deployment to include providing remote access to their network. The ProDeploy remote software includes everything mentioned in ProDeploy Plus except it does not include the added value, cybersecurity implementation, and implementatiod best practices.
- **Basic Deployment:** Basic Deployment delivers worry-free professional installation by experienced technicians. This service is often sold to Competency Enabled Partners who will have Dell do the hardware installation while they complete the software configuration. Furthermore, Basic Deployment tends to be purchased by large enterprises who have smart technical staff. These companies just need Dell to install the hardware, and they will perform the software configuration. The last use case for Basic Deployment is when paired with Factory Configuration services. The servers are preconfigured in the factory, and the basic deployment service will install the system into the rack to finalize the deployment.

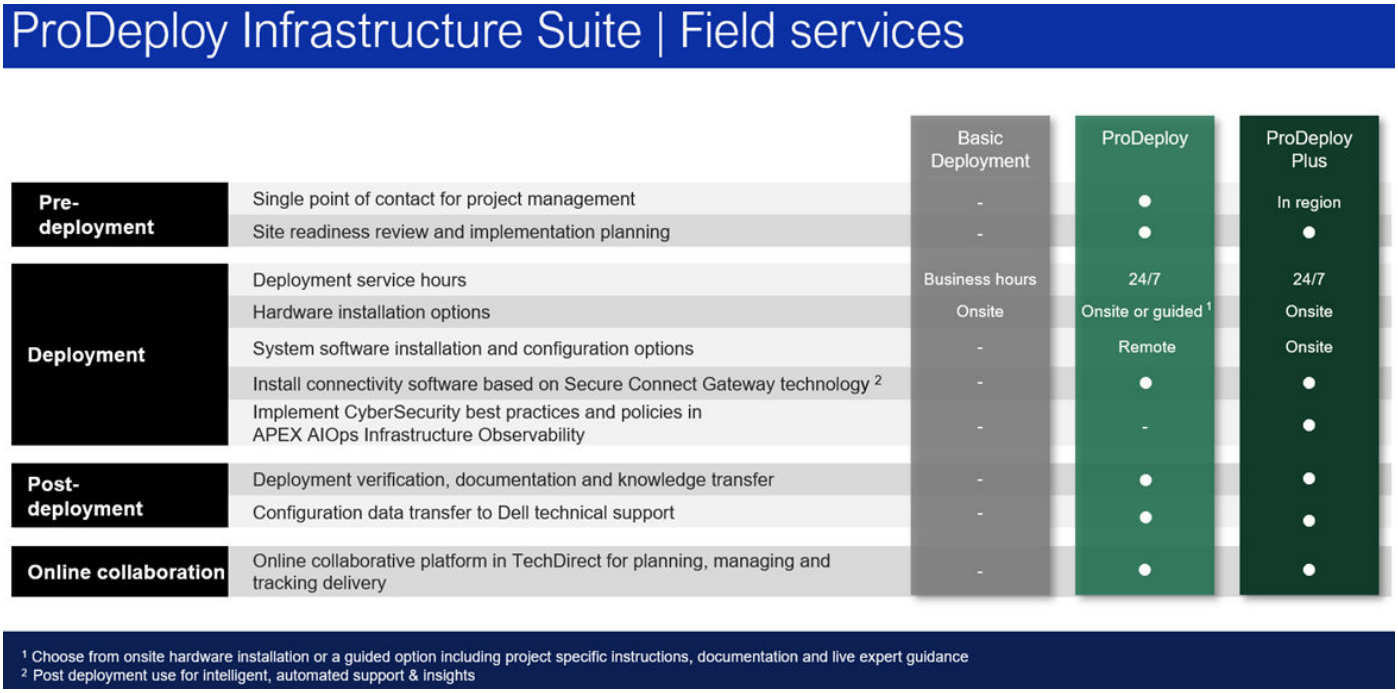


Figure 59. ProDeploy Infrastructure Suite - Field services

Supplemental Deployment Services

Additional ways to expand scope or deploy for unique scenarios.

Two Host Adder (requires PD/PDP)

Deploying new storage, compute, or networking devices may require interconnection to other servers (also called hosts). The Dell delivery team will set up four hosts per device as part of every ProDeploy service. For example, if the customer is buying two storage arrays the ProDeploy service will automatically include connectivity of four hosts each (4x2=8 total hosts per project since there are two devices). This supplemental “Two Host Adder” service provides for the configuration of additional hosts above what is already provided as part of the ProDeploy service. In many cases, customers can work with us while we set up the included hosts, so they may understand how to do the rest themselves. Always ask the customer how many hosts are being connected and sell the host adder depending on the customer’s technology skillset. Note that this service applies to the connectivity of Dell devices not 3rd party devices.

Additional Deployment Services (ADT) – sold with or without PD/PDP

You can expand the scope of a ProDeploy engagement leveraging Additional Deployment Time (ADT). ADT covers additional tasks above the normal deliverables of the ProDeploy offers. ADT can also be used as a standalone service without ProDeploy.

SKUs are available for both Project Management and Technical Resource Expertise. SKUs are sold as blocks of four hours remote or eight hours onsite. The delivery team can help in scoping the number of hours required for additional tasks.

Data Migration Services

Migrating data sets is no easy task. Our experts use proven tools and process to streamline data migrations and avoid compromising data. A customer project manager works with our experienced team of experts to create a migration plan. Data migration is part of every technology upgrade, platform change, and shift to the cloud. You can rely on Dell data migration services to perform a seamless transition.

Residency Services

Certified technical professionals act like an extension of your IT staff to enhance internal capabilities and resources and help you realize faster adoption and maximized ROI of new technology. Residency Services help customers transition to new capabilities quickly by leveraging specific technology skill sets. Residency experts can provide post implementation management and knowledge transfer that is related to a new technology acquisition or day-to-day operational management of the IT infrastructure.

- Global experts available to serve in-person (onsite) or virtual (remote)
- Engagements starting at 2 weeks with flexibility to adjust
- Residency is available for project management needs, and many different technology skills sets such as: Server, storage, Gen AI, networking, security, multi-cloud, data mgmt., and modern workforce application residents

Unique Deployment Scenarios

Custom Deployment Services

When a deployment is beyond the scope of the ProDeploy Infrastructure Suite, you can turn to the custom deployment services team to address complex implementation scenarios and customer unique requirements. The Dell custom deployment team is staffed with solution architects who will assist with customer scoping calls to define the project and develop the statement of work. Custom services can handle a wide range of deployments that can be performed in the factory or onsite. All custom engagement services are requested through SFDC.

Deployment of AI or HPC using Cluster Build Services

Once the integrated rack arrives the data center or is built onsite, Dell can also convert the racks into a large computing cluster. Dell provides several deploy options for Artificial Intelligence (AI) or High-Performance Computing (HPC) implementations. These complex environments require specialists that understand advanced feature sets to create a unified computing cluster for the most demanding workloads. Choose one of the cluster build add-ons below.

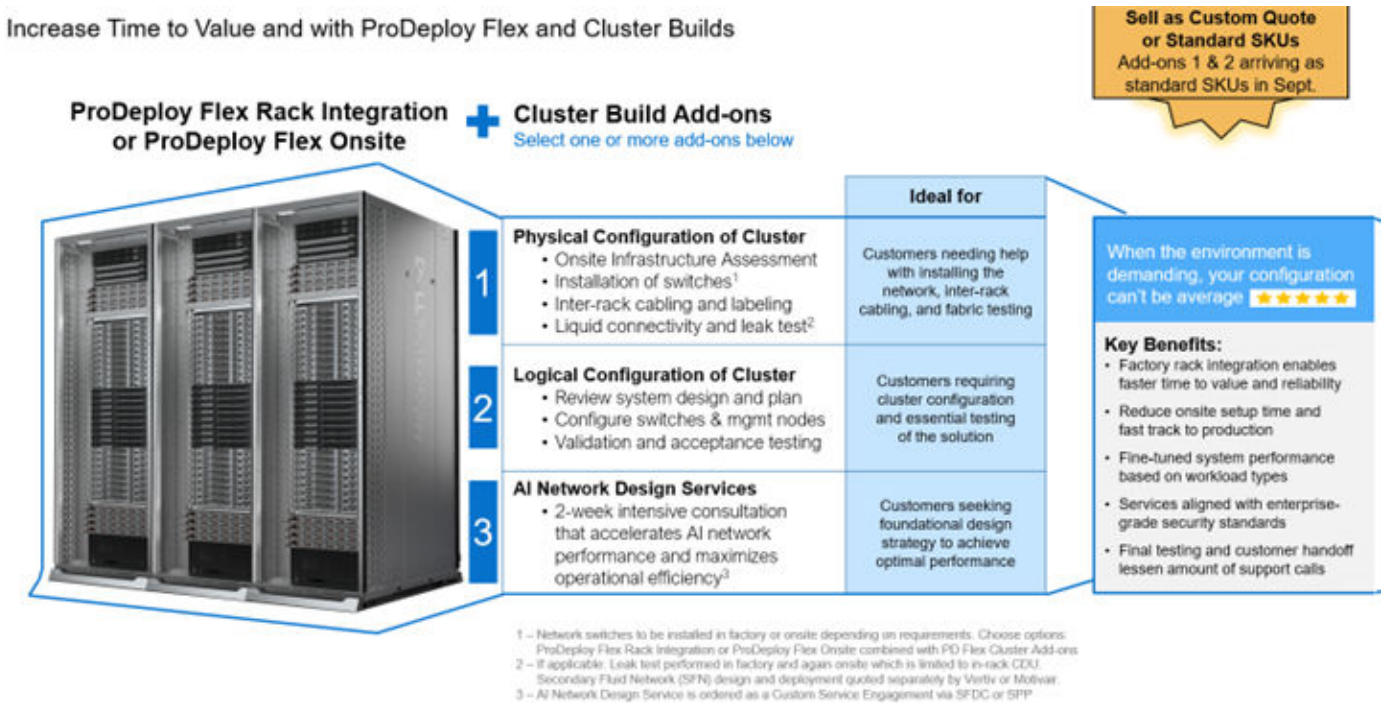


Figure 60. Deployment choices for cluster implementation

DAY 2 – Automation Services with Ansible

Dell solutions are built as "automation ready" with integrated APIs (Application Programming Interfaces) to allow customers to programmatically call actions on the product through code. Although Dell has published Anisble automation use cases, some customers need additional assistance with GitOps. By the end of the service, the customer will have the foundational components required to accelerate automation and understand how the programming works together: Day 1 and Day 2 use case automation scripts (ansible modules), CI/CD tool (Jenkins), and Version control (Git).

Dell Technologies Consulting Services

Our expert consultants help customers transform faster, and quickly achieve business outcomes for the high-value workloads Dell PowerEdge systems can handle. From strategy to full-scale implementation, Dell Technologies Consulting can help you determine how to perform IT, workforce, or application transformation. We use prescriptive approaches and proven methodologies that are combined with the portfolio and partner ecosystem of Dell Technologies to help achieve real business outcomes. From multicloud, applications, DevOps, and infrastructure transformations, to business resiliency, data center modernization, analytics, workforce collaboration, and user experiences-we are here to help.

Dell Managed Services

Some customers prefer Dell to manage the complexity and risk of daily IT operations, Dell-Managed Services uses proactive, AI enabled delivery operations and modern automation to help customers realize desired business outcomes from their infrastructure investments. With these technologies, our experts run, update, and fine-tune customer environments that are aligned with service levels, while providing environment-wide and down-to-the-device visibility. There are two types of managed service offers. First the outsourcing model or CAPEX model where Dell manages the customer-owned assets using our people and tools. The second is the as-a-Service model or OPEX model called APEX. In this service, Dell owns all technology and all the management of it. Many customers will have a blend of the two management types depending on the goals of the organization.



Figure 61. Dell Managed Services

Managed Detection and Response (MDR)

Dell Technologies Managed Detection and Response (MDR) is powered by Secureworks Taegis XDR software platform. MDR is a managed service that secures the customer's IT environment against malicious actors and provides remediation if and when a threat is identified. When a customer purchases MDR, they receive the following features from our team:

- Dell badge resources
- Agent rollout assistance to help deploy the Secureworks Endpoint Agent
- 24x7 threat detection & investigation
- Up to 40 hrs per quarter of response and active remediation activities
- If the customer experiences a breach, we will provide up to 40 hrs per year of Cyber incident response initiation
- Quarterly reviews with the customer to review the data

Dell Technologies Education Services

Build the IT skills required to influence the transformational outcomes of the business. Enable talent and empower teams with the right skills to lead and perform transformational strategy that drives competitive advantage. Leverage the training and certification that is required for real transformation.

Dell Technologies Education Services offers PowerEdge server training and certifications that are designed to help customers achieve more from their hardware investment. The curriculum delivers the information and the practical, firsthand skills that their team must confidently install, configure, manage, and troubleshoot Dell servers.

To learn more or register for a class today, see Education.Dell.com.

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Figure 62. Dell Managed Services

Cyber-Security Services

Managed Detection and Response (MDR)

Dell Managed Detection and Response Pro Plus is our fully-managed, 360º security operations solution comprised of our most cutting-edge, preventive and responsive cybersecurity services. MDR Pro Plus was designed with your top security concerns in mind, allowing you to focus on your core business goals while Dell handles your security operations. First, we have Vulnerability Management. With this service, we'll do ongoing scanning of the customer's environment looking for software that needs to be patched. Next is Pen Testing and Attack Simulation Management. This service will continuously validate security controls and policies with automated Breach and Attack Simulation (BAS), because a misconfiguration can lead to an exposure which an attacker can exploit. The service also includes an annual penetration test to determine if a skilled threat actor could exploit pathways leading to critical assets or data. Third, Managed Security Awareness Training. This service will educate the customer's end users so that they don't inadvertently put the customer at risk. If you think about our annual compliance training modules, there is always a security module. This is the same type of thing, but rather than once a year, it will be smaller, bite-size pieces of content delivered throughout the year.Fourth is our Managed Detection and Response service which provides 24x7 threat detection and investigation, analysis of end-to-end activity by threat actors, threat hunting, and quick initiation of cyber incident response when needed. Customers can choose between Secureworks Taegis XDR, CrowdStrike Falcon XDR or Microsoft Defender XDR as the security analytics platform our analysts will use to monitor their environment. All four of these services are delivered by experienced, certified Dell security experts using advanced technology such as the Secureworks Taegis XDR, CrowdStrike Falcon XDR or Microsoft Defender XDR security platforms.

Dell Technologies Education Services

Build the IT skills required to influence the transformational outcomes of the business. Enable talent and empower teams with the right skills to lead and perform transformational strategy that drives competitive advantage. Leverage the training and certification that is required for real transformation.

Dell Technologies Education Services offers PowerEdge server training and certifications that are designed to help customers achieve more from their hardware investment. The curriculum delivers the information and the practical, firsthand skills that their team must confidently install, configure, manage, and troubleshoot Dell servers.

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Resources

Service for powerEdge