DELL Technologies

Specification Sheet

PowerEdge R670

Elevate your datacenter efficiencies with optimized power and balanced performance.

Boost Datacenter Efficiencies and Performance

The Dell PowerEdge R670 is a 1U, dual-socket rack server designed for high performance computing with optimal power efficiency and balanced performance to boost your data center productivity. It balances advanced computing power with virtulization, cloud-native applications, all flash SDS, hyperscale workloads and scale out databases.

Purpose-built for enterprise and scalable infrastructures, the PowerEdge R670 offers standardization that easily integrates into existing environments, equipped with two Intel® Xeon® 6 processors with E-cores and P-cores, it offers up to 1.69x better performance per watt than previous models, improving power efficiency and increasing rack density. The addition of GPU support further amplifies computational power, ensuring high performance with lower energy use.

These servers are available in rear I/O hot aisle and front I/O cold aisle configurations. The front I/O cold aisle improves serviceability, reduces maintenance time, and enhances efficiency, reliability, and uptime, supporting your sustainability goals by optimizing cooling and energy use. It also features Dell's Smart Power and Cooling Technology, optimized for air cooling to significantly reduce energy consumption, contributing to long-term operational savings.

Cyber Resilient Architecture for Zero Trust IT environment & operations

Security is integrated into every phase of the PowerEdge lifecycle, including protected supply chain and factory-to-site integrity assurance. The Silicon-based root of trust anchors end-to-end boot resilience while Multi-Factor Authentication (MFA) and role-based access controls safeguard trusted operations.

Increase efficiency and accelerate operations with autonomous collaboration

The Dell OpenManage systems management portfolio tames the complexity of managing and securing IT infrastructure. Using Dell Technologies' intuitive end-to-end tools, IT can deliver a secure, integrated experience by reducing process and information silos in order to focus on growing the business. The Dell OpenManage portfolio is the key to your innovation engine, unlocking the tools and automation that help you scale, manage, and protect your technology environment.

Sustainability

From recycled materials in our products and packaging, to thoughtful, innovative options for energy efficiency, the PowerEdge portfolio is designed to make, deliver, and recycle products to help reduce the carbon footprint and lower your operation costs. We even make it easy to retire legacy systems responsibly with Dell Technologies.

Rest easier with Dell Technologies Services

Maximize your PowerEdge Servers with comprehensive services designed to meet you wherever you are. Accelerate time to value in achieving high AI use cases with Professional Services for AI, choose from tailored deployment options with the ProDeploy Suite, receive proactive and predictive support with our ProSupport Suite, and so much more with our services available across 170 locations and backed by our 60K+ employees and partners.

PowerEdge R670

The Dell PowerEdge R670 is powered by Intel Xeon 6 Processors, DDR5 Memory, NVMe BOSS, Energy Star compliant and advanced cooling.
Ideal for:

- Virtualization
- Cloud-native applications
- All-flash SDS
- Hyperscale workloads
- Scale out Databases

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.

Feature	Technical Specifications	
Processor	Two Intel Xeon 6 Processors with up to 144 E-cores or 86 P-cores per processor	
Memory	• 32 DDR5 DIMM slots, supports RDIMM 8 TB max, speeds up to 6400 MT/s • Supports registered ECC DDR5 DIMMs only	
Storage controllers	• Internal Boot: Boot Optimized Storage Subsystem (BOSS-N1 DC-MHS): HWRAID 1, 2 x M.2 NVMe SSDs or M.2 Interposer board (DC-MHS): 2 x M.2 NVMe SSDs or USB • Internal controllers: Front PERC H965i, Front PERC H975i, Front PERC H365i	
Front Bays	• No Backplane configuration • Up to 8 x EDSFF E3.S NVMe max 491.52 TB also with FIO configuration Up to 16 x EDSFF E3.S Gen5 NVMe max 983.04 TB • Up to 20 x EDSFF E3.S Gen5 NVMe max 1228.8 TB • Up to 8 x 2.5 inch SATA/NVMe Direct/NVMe Raid max 491.52 TB • 8 x 2.5-inch Universal 491.52 TB • Up to 10 x 2.5 inch SATA max 38.4 TB • Up to 2 x EDSFF E3.S Gen5 NVMe in the rear max 122.88 TB	
Hot swap Power Supplies	• 1500 W Titanium 100—240 VAC or 240 VDC • 1100 W Titanium 100—240 VAC or 240 VDC • 800 W Titanium 100—240 VAC or 240 VDC • 1100 W Platinum 100—240 VAC or 240 VDC • 800 W Platinum 100—240 VAC or 240 VDC • 1800 W HLAC Titanium 200—240 VAC or 240 VDC* • 1500 W 277 VAC or 336 VDC* • 1400 W LVDC -48 — -60 VDC	
Cooling Options	• Air cooling and Direct Liquid Cooling • Note : DLC is a rack solution and requires rack manifolds and a cooling distribution unit (CDU) to operate.	
Fans	• High performance Silver (HPR SLVR) or Standard (STD) fans • Up to 4 sets (dual fan module) hot swappable fans	
Dimensions and Weight	Height – 42.8 mm (1.69 inches) Width – 482 mm (18.98 inches) Weight – 20.42 kg (45.02 pounds)	Depth (for rear I/O configuration) • 816.92 mm (32.20 inches) with bezel • 815.14 mm (32.09 inches) without bezel Depth (for front I/O configuration) • 829.44 mm (32.66 inches) without bezel Note: The front I/O configuration does not support the bezel.
Form Factor	1U rack server	
Embedded Management	• iDRAC • iDRAC Direct • iDRAC RESTful API with Redfish • RACADM CLI • iDRAC Service Module (iSM) • Quick Sync 2 wireless module • NativeEdge Endpoint* • NativeEdge Orchestrator*	
Bezel	Optional security bezel	
Security	• Cryptographically signed firmware • Data at Rest Encryption (SEDs with local or external key mgmt) • Secure Boot • Secured Component Verification (Hardware integrity check) • Secure Erase • Silicon Root of Trust • System Lockdown • TPM 2.0 FIPS, CC-TCG certified • Chassis Intrusion Detection	
Network options	2 x OCP NIC 3.0 cards (optional) and 1GbE, 10GbE, 25GbE, 100GbE and 400GbE* Slot 31 1 x16 OCP 3.0 on front riser Slot 32 1 x16 OCP 3.0 on front riser Slot 2 1 x16 OCP 3.0 Slot 5 1 x8 Gen5 OCP 3.0 or 1 x16 Gen5 OCP 3.0	
BOSS	Slot 34: Front BOSS slot or Slot 3: Rear BOSS slot	
GPU options	Up to 3 x 75 W SW	
DPU options	• NVIDIA BlueField-3 2x200 GbE B3220 • NVIDIA BlueField-3 1x400 GbE B3140H	
Ports	Front Ports: • 1 x USB 2.0 Type C port • 1 x USB 2.0 Type A port (optional) • 1 x Mini-DisplayPort (optional) • 1 x DB9 Serial (with front I/O configuration) • 1 x Dedicated ethernet port for iDRAC management	Rear Ports: • 1 x Dedicated ethernet port for iDRAC management • 1 x VGA • 2 x USB 3.1 Type A ports
	Internal Ports: • 1 x USB 3.1 Type A port	

Feature	Technical Specifications
PCIe	• Up to 2 x16 Gen5 PCIe slots • Slot 31 1 x16 Full Height - Half Length or Full Height - Full Length or 1 x16 OCP 3.0 on front riser • Slot 32 1 x16 Full Height - Half Length or Full Height - Full Length or 1 x16 OCP 3.0 on front riser • Up to 3 x16 or 2 x8 Gen5 PCIe slots • Slot 1 1 x16 Full Height - Half Length or Full Height - Full Length or 3 x16 or 1 x8 Low Profile - Half Length • Slot 2 1 x16 or 1 x8 Low Profile - Half Length or 1 x16 OCP 3.0 • Slot 4 1 x16 Full Height - Half Length or 1 x16 Low Profile - Half Length
Operating System and Hypervisors	• Canonical Ubuntu Server LTS • Microsoft Windows Server with Hyper-V (P-Core only) • Red Hat Enterprise Linux • SUSE Linux Enterprise Server • VMware ESXi • Dell NativeEdge OS* For specifications and interoperability details, see Dell.com/OSsupport
OEM-ready version available	From bezel to BIOS to packaging, your servers can look and feel as if they were designed and built by you. For more information, visit Dell.com -> Solutions -> OEM Solutions.

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NOTE: From bezel to BIOS to packaging, your servers can look and feel as if they were designed and built by you with our OEMR platforms, while XL platforms provide extended transitions and stability for OEM Solutions customers. For more information, visit Dell.com -> Solutions -> OEM Solutions.

APEX Flex on Demand

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