PowerEdge R450

Spec Sheet

1U, value and density-focused, built for general purpose IT

The Dell EMC PowerEdge R450, with 3rd generation Intel® Xeon® Scalable processors, offers exceptional value and density with excellent performance.

Innovate at scale with challenging and emerging workloads

The Dell EMC PowerEdge R450 is a 1U, two-socket entry-level server that offers the best value for organizations seeking updated processing, I/O, and storage capabilities in a dense form factor. It lets you:

• Add additional power: Adds additional power with up to two 3rd generation Intel Xeon Scalable processors with up to 24 cores per socket
• Built with faster memory: Supports up to 16 DDR4 RDIMMS at 2933 MT/sec
• Improve throughput, reduce latency with up to 2 PCIe Gen4 slots
• Include flexible local storage: Offers up to 8x 2.5-inches HDDs or SSDs; or up to 4x 3.5-inches HDDs or SSDs
• Support distinctive needs: Perfect for smaller infrastructures and light virtualization demands

Increase efficiency and accelerate operations with autonomous compute infrastructure

The Dell EMC 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 EMC OpenManage portfolio is the key to your innovation engine, unlocking the tools and automation that help you scale, manage, and protect your technology environment.

• Built-in telemetry streaming, thermal management, and RESTful API with Redfish offer streamlined visibility and control for better server management
• Intelligent automation lets you enable cooperation between human actions and system capabilities for added productivity
• Integrated change management capabilities for update planning and seamless, zero-touch configuration and implementation
• Full-stack management integration with Microsoft, VMware, ServiceNow, Ansible and many other tools

Built-in proactive resilience through a complete portfolio of solutions

From the silicon and supply chain all the way to asset retirement, know that your servers are safe and secure with innovative Dell EMC and Intel technologies. We give you the confidence of cyber resilience with enterprise class security that minimizes risk for any organization, from small business to hyperscale.

• Start strong with platform security features, even before the server is built, including Secured Component Verification and Silicon Root of Trust
• Stay strong with continuous innovations that bolster cyber resilience, like OpenManage Secure Enterprise Key Manager and Automatic Certificate Enrollment
• Outmaneuver threats with intelligence, automation, and recovery tools that include iDRAC9 Telemetry, BIOS live scanning, and Rapid OS recovery

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Power your innovation with the Dell EMC PowerEdge R450, the 1U 2-socket server that's built for high density and added value.

• Small IT Infrastructure
• Light VM (virtual machine density)
• Small Business Specific

Feature	Technical Specifications	
Processor	Up to two 3rd Generation Intel Xeon Scalable processors, with up to 24 cores per processor	
Memory	Memory 16 DDR4 DIMM slots, supports RDIMM max 1 TB, speeds up to 2933 MT/s Supports registered ECC DDR4 DIMMs only	
Storage controllers	• Internal controllers (RAID): PERC H345, PERC H355, HBA355i, PERC H745, PERC H755, S150 • Internal Boot: Internal Dual SD Module or Boot Optimized Storage Subsystem (BOSS-S2): HWRAID 2x M.2 SSDs • External PERC (RAID): PERC H840 • External HBA (non-RAID) HBA355e	
Drive Bays	Front bays: • Up to 4 x 3.5-inch SAS/SATA (HDD/SSD) max 64 TB • Up to 8 x 2.5-inch SAS/SATA (HDD/SSD) max 61.4 TB	
Power Supplies	• 1100 W DC / -48–(-60) V • 800 W Platinum AC 100-240 VAC or 240 VDC Mixed mode, hot-swap redundant • 600 W Platinum AC 100-240 VAC or 240 VDC Mixed mode, hot-swap redundant	
Cooling options	Air cooling	
Fans	• Standard (STD) fans or High performance SLVR fans • Up to seven cold swap fans	
Dimensions	• Height – 42.8 mm (1.7 inches) • Width – 482 mm (18.97 inches) • Depth – 734.95 mm (28.92 inches) – without bezel 748.79 mm (29.47 inches) – with bezel	
Form Factor	1U rack server	
Embedded Management	• iDRAC9 • iDRAC Direct • iDRAC RESTful API with Redfish • iDRAC Service Module • Quick Sync 2 wireless module	
Bezel	Optional LCD bezel or security bezel	
OpenManage Software	• OpenManage Enterprise • OpenManage Power Manager plugin • OpenManage SupportAssist plugin • OpenManage Update Manager plugin	
Mobility	OpenManage Mobile	
Integrations and Connections	OpenManage Integrations • BMC Truesight • Microsoft System Center • Red Hat Ansible Modules • VMware vCenter and vRealize Operations Manager	OpenManage Connections • IBM Tivoli Netcool/OMNIbus • IBM Tivoli Network Manager IP Edition • Micro Focus Operations Manager • Nagios Core • Nagios XI
Security	• Cryptographically signed firmware • Secure Boot • Secure Erase • Silicon Root of Trust • System Lockdown (requires iDRAC9 Enterprise or Datacenter) • TPM 1.2/2.0 FIPS, CC-TCG certified, TPM 2.0 China NationZ	
Embedded NIC	2 x 1 GbE LOM	
Network Options	1 x OCP 3.0	
GPU Options	Not supported	
Ports	Front Ports • 1 x Dedicated iDRAC Direct micro-USB • 1 x USB 3.0 • 1 x VGA	Rear Ports • 1 x USB 2.0 • 1 x Serial (optional) • 1 x iDRAC ethernet port • 1 x USB 3.0 • 2 x Ethernet • 1 x VGA
	Internal Ports • 1 x USB 3.0 (optional)	
PCIe	2 x PCIe Gen4 slots • 2 x16 Gen4 low profile (each slot with optional right-angle riser)	
Operating System and Hypervisors	• Canonical Ubuntu Server LTS • Citrix Hypervisor • Microsoft Windows Server with Hyper-V • Red Hat Enterprise Linux • SUSE Linux Enterprise Server • VMware ESXi For specifications and interoperability details, see Dell.com/OSsupport.	

Feature	Technical Specifications
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/OEM.

Recommended support and services

Dell ProSupport Plus for critical systems or Dell ProSupport for premium hardware and software support for your PowerEdge solution. Consulting and deployment offerings are also available. Contact your Dell representative today for more information. Availability and terms of Dell Services vary by region. For more information, visit Dell.com/ServiceDescriptions.

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