Dell PowerEdge R750

Spec Sheet

General purpose server optimized to address the most demanding workloads

The Dell PowerEdge R750, is a full-featured enterprise server, delivering outstanding performance for the most demanding workloads.

Innovate at scale with challenging and emerging workloads

The Dell PowerEdge R750, powered by the 3rd Generation Intel® Xeon® Scalable processors is a rack server to address application performance and acceleration. The PowerEdge R750, is a dual-socket/2U rack server that delivers outstanding performance for the most demanding workloads. It supports 8 channels of memory per CPU, and up to 32 DDR4 DIMMs @ 3200 MT/s speeds. In addition, to address substantial throughput improvements the PowerEdge R750 supports PCIe Gen 4 and up to 24 NVMe drives with improved air-cooling features and optional Direct Liquid Cooling to support increasing power and thermal requirements. This makes the PowerEdge R750 an ideal server for data center standardization on a wide range of workloads including; Database and Analytics, High-performance computing (HPC), Traditional corporate IT, Virtual Desktop Infrastructure, and AI/ML environments that require performance, extensive storage and GPU support.

Increase efficiency and accelerate operations with autonomous collaboration

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

Protect your data assets and infrastructure with proactive resilience

The Dell PowerEdge R750 server is designed with a cyber-resilient architecture, integrating security deeply into every phase in the lifecycle, from design to retirement.

- Operate your workloads on a secure platform anchored by cryptographically trusted booting and silicon root of trust
- Maintain server firmware safety with digitally signed firmware packages
- Prevent unauthorized configuration or firmware change with system lockdown
- Securely and quickly wipe all data from storage media, including hard drives, SSDs and system memory with System Erase

PowerEdge R750

The Dell PowerEdge R750 offers compelling performance, high-speed memory and capacity, I/O bandwidth and storage to address data requirements – Ideal for:

- Traditional corporate IT
- Database and Analytics
- Virtual Desktop Infrastructure
- AI/ML and HPC

Feature	Technical Specifications
Processor	Up to two 3rd Generation Intel Xeon Scalable processors, with up to 40 cores per processor
Memory	• 32 DDR4 DIMM slots, supports RDIMM 2 TB max or LRDIMM 8 TB max, speeds up to 3200 MT/s • Up to 16 Intel Persistent Memory 200 series (BPS) slots, 8 TB max • Supports registered ECC DDR4 DIMMs only
Storage controllers	• Internal controllers: PERC H745, HBA355I, S150, H345, H755, H755N • Boot Optimized Storage Subsystem (BOSS-S2): HW RAID 2 x M.2 SSDs 240 GB or 480 GB • Boot Optimized Storage Subsystem (BOSS-S1) HW RAID 2 x M.2 SSDs 240 GB or 480 GB • External PERC (RAID): PERC H840, HBA355E
Drive Bays	Front bays: • Up to 12 x 3.5-inch SAS/SATA (HDD/SSD) max 192 TB • Up to 8 x 2.5-inch NVMe (SSD) max 122.88 TB • Up to 16 x 2.5-inch SAS/SATA/NVMe (HDD/SSD) max 245.76 TB • Up to 24 x 2.5-inch SAS/SATA/NVMe (HDD/SSD) max 368.84 TB Rear bays: • Up to 2 x 2.5-inch SAS/SATA/NVMe (HDD/SSD) max 30.72 TB • Up to 4 x 2.5-inch SAS/SATA/NVMe (HDD/SSD) max 61.44 TB
Power Supplies	• 700 W Titanium HLAC/240 mixed mode • 800 W Platinum AC/240 mixed mode • 1100 W Titanium AC/240 mixed mode • 1100 W DC -48 - -60 V • 1400 W Platinum AC/240 mixed mode • 1800 W Titanium HLAC/240 mixed mode • 2400 W Platinum AC/240 mixed mode • 2800 W Titanium HLAC/240 mixed mode
Cooling Options	Air cooling, optional processor liquid cooling
Fans	• Standard fan/High performance SLVR fan/High performance GOLD fan • Up to six hot plug fans
Dimensions	• Height – 86.8 mm (3.41 inches) • Width – 482 mm (18.97 inches) • Depth – 758.3 mm (29.85 inches) - without bezel 772.14 mm (30.39 inches) - with bezel
Form Factor	2U rack server
Embedded Management	• iDRAC9 • iDRAC Service Module • iDRAC Direct • 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 (x8 PCIe lanes)
GPU Options	Up to two double-width 300 W, or three single-width 150 W, or six single-width 75 W accelerators
Ports	Front Ports • 1 x Dedicated iDRAC Direct micro-USB • 1 x USB 2.0 • 1 x VGA Rear Ports • 1 x USB 2.0 • 1 x Serial (optional) • 1 x USB 3.0 • 2 x RJ-45 • 1 x VGA (optional for liquid cooling configuration) Internal Ports • 1 x USB 3.0
PCIe	Up to 8 x PCIe Gen4 slots (up to 6 x16) with support for SNAP I/O modules

Feature	Technical Specifications
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.
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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