Purpose built server designed to address emerging and highly intensive GPU workload

The Dell PowerEdge R750xa, is a purpose-built server designed to boost acceleration performance across the widest range of customer needs.

Innovate at scale with challenging and emerging workloads

The Dell PowerEdge R750xa, powered by the 3rd Generation Intel® Xeon® Scalable processors, is a dual-socket/2U rack server that delivers outstanding performance for the most demanding emerging and intensive GPU workloads. It supports 8 channels/CPU, up to 32 DDR4 DIMMs @ 3200 MT/s DIMM speed. In addition, to address substantial throughput improvements the PowerEdge R750xa supports PCIe Gen 4 and up to 8 SAS/SATA SSD or NVMe drives. With one platform that supports all of the PCIe GPUs in the PowerEdge portfolio, this makes the PowerEdge R750xa the ideal server for emerging workloads including AI-ML/DL Training and Inferencing, High-Performance Computing and virtualization environments.

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 R750xa 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 R750xa

The Dell PowerEdge R750xa offers compelling performance, high-speed memory and capacity and exceptional support for a wide range of GPU offering – Ideal for:

- AI/ML/DL Training and Inferencing
- High-Performance Computing
- Virtualization

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 4 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 • External PERC (RAID): PERC H840, HBA355E	
Drive Bays	Front bays: • Up to 8 x 2.5-inch SAS/SATA/NVMe (HDD/SSD) max 122.88 TB • Up to 6 x 2.5-inch NVMe (SSD) direct-attach max 92.1 TB	
Power Supplies	• 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	• 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 – 894.8 mm (35.22 inches) - without bezel 908.64 mm (35.77 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 four single-width 150 W or four double-width 300 W in the front and two single-width 75 W at the rear	
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 + 2 x8)	
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 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.

Dell Technologies on Demand

Consume technology, infrastructure and services any way you want with Dell Technologies on Demand, the industry's broadest end-to-end portfolio of flexible consumption and as-a-Service solutions. For more information, visit: www.delltechnologies.com/ondemand.

Discover more about PowerEdge servers

Learn more about our PowerEdge servers

Learn more about our systems management solutions

Search our Resource Library

Follow PowerEdge servers on Twitter

Contact a Dell Technologies Expert for Sales or Support

DELLTechnologies