

POWEREDGE R940

Scale-up powerhouse for mission critical workloads



The PowerEdge R940 is designed to power your mission critical applications and real-time decisions. With four sockets and up to 12 NVMe drives, the R940 provides scalable performance in just 3U.

Breathtaking performance for mission-critical workloads

The scalable business architecture of the Dell EMC PowerEdge R940 can deliver the most mission critical workloads. With automatic workload tuning for many workloads, configuration is quick. Combined with up to 15.36TB of memory and 13 PCIe Gen 3 slots, the R940 has all the resources to maximize application performance and scale for future demands.

- Maximize storage performance with up to 12 NVMe drives and ensure application performance scales easily.
- Optimized for software defined storage with a special 2-socket configuration delivering 50% more UPI bandwidth compared to a regular 2-socket server.
- Free up storage space using internal M.2 SSDs optimized for boot.
- Eliminate bottlenecks with up to 15.36TB of memory in 48 DIMMS, 24 of which can be Intel® Optane™ persistent memory PMem.

Automate maintenance with Dell EMC OpenManage

The Dell EMC OpenManage™ portfolio helps deliver peak efficiency for PowerEdge servers, delivering intelligent, automated management of routine tasks. Combined with unique agent-free management capabilities, the PowerEdge R940 is simply managed, freeing up time for high profile projects.

- Simplify management with the OpenManage Enterprise™ console, with customized reporting and automatic discovery.
- Take advantage of QuickSync 2 capabilities and gain access to your servers easily through your phone or tablet.

Rely on PowerEdge with built-in security

Every PowerEdge server is designed as part of a cyber resilient architecture, integrating security into the full server life cycle. The R940 leverages new security features built-into every new PowerEdge server strengthening protection so you can reliably and securely deliver accurate data to your customers no matter where they are. By considering each aspect of system security, from design to retirement, Dell EMC ensures trust and delivers a worry-free, secure infrastructure without compromise.

- Rely on a secure component supply chain to ensure protection from factory to the data center.
- Maintain data safety with cryptographically signed firmware package and Secure Boot.
- Protect your server from malicious malware with iDRAC9 Server Lockdown mode (requires Enterprise or Datacenter license).
- Wipe all data from storage media including hard drives, SSDs and system

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- High bandwidth dual socket option optimized for virtualized environments
- 13 PCIe Gen. 3 slots

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Features	Technical Specification	
Processor	Up to four 2 nd Generation Intel® Xeon® Scalable processors, up to 28 cores each	
Memory	48 DDR4 DIMM slots, Supports RDIMM /LRDIMM, up to 2933MT/s, 6TB max Up to 12 NVDIMM, 384GB Max Up to 24 Intel® Optane™ persistent memory PMem, max 12.28TB, (15.36TB max with PMem and LDRIMM) Supports registered ECC DDR4 DIMMs only	
Storage controllers	Internal Controllers: PERC H330, H730P, H740P, HBA330 External Controllers: H840, 12 Gbps SAS HBA Software RAID:S140	
Internal boot	Boot Optimized Storage Subsystem (BOSS):HWRAID 2 x M.2 SSDs 240GB, 480GB Internal Dual SD Module ¹	
Drive bays	Front drive bays: Up to 24 x 2.5" SAS/SATA (HDD/SSD) with up to 12 NVMe PCIe SSD, max 184.32TB	
Power supplies	Platinum 1100W, 1100W 380VDC, 1600W, 2000W, 2400W Gold 1100W-48VDC	Hot plug power supplies with full redundancy option 8 hot plugs fans with full redundancy
Dimensions	Form factor: Rack (3U)	Height: 130.3mm (5.13") Width: 434mm (17.08") Depth: 784.2mm (30.8") Weight: 49.9kg (110lbs.) *Dimensions do not include bezel
Embedded management	IPMI 2.0 compliant iDRAC9, iDRAC Direct, iDRAC RESTful with Redfish Quick Sync 2 wireless module (optional)	
Bezel	Optional LCD or security bezel	
OpenManage™ Software	OpenManage Enterprise	OpenManage Mobile OpenManage Power Center
Integrations and connections	Integrations: Microsoft® System Center VMware® vCenter™ BMC Truesight Red® Hat Ansible Modules	Connections: Nagios Core & Nagios XI Micro Focus Operations Manager I IBM Tivoli Netcool/OMNIBus
Security	TPM 1.2/2.0 optional Cryptographically signed firmware Secure Boot	Silicon Root of Trust System Lockdown (requires iDRAC Enterprise or Datacenter) Secure erase
I/O & Ports	Network daughter card options 4x 1GbE, 4x 10GbE, 2x 10GbE+2x 1GbE, or 2x 25GbE Front ports: 1 x Dedicated iDRAC Direct USB, 2 x USB 3.0, 1 x VGA Rear ports: 1 x Dedicated iDRAC network port, 1 x Serial, 2 x USB 3.0, 1 x VGA Video card: 2 x VGA Up to 13 x Gen3 slots, (3 x8 + 10 x16)	
Supported operating systems	Canonical® Ubuntu® Server LTS Citrix® Hypervisor Microsoft Windows Server® LTSC with Hyper-V Oracle® Linux	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	Dell EMC ProSupport Plus for critical systems or Dell EMC ProSupport for premium hardware and software support for your PowerEdge solution. Consulting and deployment offerings are also available. Contact your Dell EMC representative today for more information.	

¹ ESXi (only OS supported)

Recommended services

ProSupport Plus with SupportAssist provides proactive and predictive support for critical systems. ProSupport provides comprehensive hardware and software support. Get more from your technology starting on day one with ProDeploy Enterprise Suite deployment offers. For more information, visit Dell.com/itlifecycleservices.

End-to-end technology solutions

Reduce IT complexity, lower costs and eliminate inefficiencies by making IT and business solutions work harder for you. You can count on Dell EMC for end-to-end solutions to maximize your performance and uptime. A proven leader in Servers, Storage and Networking, Dell EMC Services deliver innovation at any scale. And if you're looking to preserve cash or increase operational efficiency, Dell EMC Financial Services™ has a wide range of options to make technology acquisition easy and affordable. Contact your Dell EMC Sales Representative for more information.*

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