



POWEREDGE R840

Turbocharge your data analytics

Designed to drive faster insights, the PowerEdge R840 delivers four-socket performance in a dense 2U design. Power your business-critical workloads with up to 24 direct-attached NVMe drives.

Maximize application performance and density

The R840 delivers consistent, high performance results for data-intensive applications and data analytic workloads. With powerful Intel® Xeon® Scalable processors and up to 112 cores, the R840 can quickly turn analytics into insights to drive your business forward faster. Create an optimal configuration of NVMe, SSD, HDD and GPU resources to address your most demanding workloads - all in a 2U chassis.

- Scale capacity and performance with up to 26 2.5" HDDs and SSDs, 62% more than the previous generation.¹
- Accelerate applications with up to 2 double-wide GPUs or up to 2 FPGAs.
- Speed data transfers with a fully integrated ultra path interconnect across all four sockets.
- Eliminate bottlenecks with up to 48 DIMMs, including up to 12 NVDIMMs.

Automate maintenance with Dell EMC OpenManage

Dell EMC OpenManage™ portfolio helps deliver peak efficiency for PowerEdge server customers, delivering intelligent, automated management of routine tasks. Combined with unique agent-free management capabilities, the R840 is easy to manage, and by doing routine work automatically, you can free up time for higher-value projects.

- Unify monitoring and management of your IT infrastructure with OpenManage Enterprise.
- Utilize a variety of OpenManage integrations and connections to take advantage of your existing IT management platform.
- Take advantage of QuickSync 2 capabilities and gain access to your servers easily through your phone or tablet.

Guard your data center with built in security

Every PowerEdge server is made with a cyber-resilient architecture, delivering security into all parts of a server's life cycle. The R840 uses these new security features so you can reliably and securely deliver the right data to where your customers are, no matter where they are. Dell EMC considers each part of system security, from design to end of life, to ensure trust and deliver worry-free systems.

- Rely on a secure component supply chain to ensure protection from factory to the data center.
- Maintain data safety with cryptographically signed firmware packages and Secure Boot.
- Prevent unauthorized or malicious change with Server Lockdown.
- Wipe all data from storage media including hard drives, SSDs and system memory quickly and securely with System Erase.

PowerEdge R840

Boost performance and minimize latency:

- Choose an all-flash configuration with up to 24 direct-attached NVMe drives
- Add up to 12 NVDIMMs of memory

¹ Based on Dell EMC internal analysis, Jan 2018, comparing to the previous Dell EMC PowerEdge R830.

PowerEdge R840

Features	Technical Specification	
Processor	Up to four Intel® Xeon® Scalable processors, up to 28 cores each	
Memory	48 DDR4 DIMM slots, Supports RDIMM /LRDIMM, up to 2666MT/s, 6TB max Up to 12 NVDIMMs, 384GB Max Supports registered ECC DDR4 DIMMs only	
Storage controllers	Internal Controllers: PERC H730P, H740P, H330 Software RAID (SWRAID) S140 Boot Optimized Storage Subsystem: HWRAID 2 x M.2 SSDs 120GB or 240 GB External PERC (RAID): H840 12Gbps SAS HBAs (non-RAID): External-12Gbps SAS HBA (non-RAID), Internal- HBA330 (non-RAID)	
Drive bays	Front drive bays: Up to 8x 2.5" SAS SATA (HDDs/SSDs) max 30TB, or up to 24 x 2.5" SAS/SATA (HDDs/SSDs) with up to 12 NVMe PCIe SSDs max 122TB, or up to 24 NVMe PCIe SSDs max 153TB Rear drive bays: Up to 2 x 2.5" SAS/SATA (HDDs/SSDs), max 7.68TB	
Power supplies	Platinum: 750W,1100W, 1600W, 2000W, 2400W Titanium: 750W DC: 1100W	Mix Mode/HVDC: 750W, 1100W ¹ Hot plug power supplies with full redundancy option 6 hot plugs fans with N +1 redundancy
Dimensions	Form factor: Rack (2U)	Chassis Length:482mm Chassis Weight: 36.6kg Chassis depth: 812mm
Embedded management	iDRAC9 with Lifecycle Controller iDRAC Direct	iDRAC RESTful API with Redfish Quick Sync 2 BLE/wireless
Bezel	Optional LCD bezel or security bezel	
OpenManage™ Software	OpenManage Enterprise OpenManage Essentials	OpenManage Mobile OpenManage Power Center
Integrations and connections	Integrations: Microsoft® System Center, VMware® vCenter™, BMC Software (available from BMC), Ansible by RedHat	Connections: Nagios Core & Nagios XI, Oracle Enterprise Manager, Microfocus Operations Manager i (OMi), IBM Tivoli Netcool/OMNibus
Tools	Dell EMC Repository Manager Dell EMC Update Package Dell EMC System Update Dell EMC Server Update Utility	iDRAC Service Module OpenManage Server Administrator OpenManage Storage Services
Security	TPM 1.2/2.0 optional Cryptographically signed firmware Silicon Root of Trust	Secure Boot System Lockdown Secure Erase
I/O & Ports	Network Daughter Card Options 4 x 1GE, 4 x 10GE, 2 x 10GE+2 x 1GE, or 2 x 25GE Front ports: Video, 2 x USB 2.0, 1 dedicated iDRAC Direct Micro-USB. (Optional 1 x USB 3.0 only offered on the 8-drive configuration).	Rear ports: Video, serial, 2 x USB 3.0 Internal port: 1 x USB 3.0 Video card: VGA PCIe: Up to 6 x Gen3 slots, (4x16 slots or 2x16 + 4x8 slots)
Accelerator Options	Up to 2 doublewide GPUs or up to 2 full-height FPGAs ²	GPU:Nvidia Tesla P100, P40, V100 See Dell.com/GPU for latest information.
Supported operating systems	Canonical® Ubuntu® LTS Citrix® XenServer® 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	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 .	

¹ Available in China only.

² GPUs/FPGAs not available with the 2 x 2.5" rear drive bay.

Learn more at Dell.com/PowerEdge

End-to-end technology solutions

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