



POWEREDGE R830

A high-performance four-socket, 2U rack server, the Dell EMC PowerEdge R830 is designed for scalable database applications and dense virtualization deployments.

Manage data overload and expanding virtual environments in midsized and large enterprises with the extreme processing power and massive memory density of the PowerEdge R830 rack server. A compute-intensive performance platform with highly scalable memory (up to 3TB) and impressive I/O capabilities, the R830 offers the Intel® Xeon® processor E5-4600 v4 product family, with up to 22 cores per processor, to readily handle demanding workloads, like enterprise resource planning (ERP), data warehousing, e-commerce, Virtual Desktop Infrastructure (VDI), databases and data node high-performance computing (HPC).

Versatility

Versatility makes the R830 an ideal platform for a variety of compute-intensive, memory-bound or I/O-centric workloads. Whether it's Oracle® RAC or Microsoft® SQL®, available resources can be fine-tuned to maximize application performance and boost CPU utilization with support for NVMe PCIe add-in cards. The R830 also delivers superior resources for dense virtualization environments with redundant embedded hypervisors that ensure uptime for fail-safe virtualization deployments.

Scalable, balanced performance

With up to 16 x 2.5-inch SSDs or HDDs and up to 3TB of DDR4 memory, the R830 seamlessly scales to optimize workloads and maximize the CPU, making it an ideal foundation for scale-out four-socket workloads and dense virtualization deployments.

Innovative management with intelligent automation

PowerEdge servers let you construct and manage highly efficient infrastructures for data centers and small businesses. Accelerate time-to-production with automated deployment processes that use fewer manual steps and reduce human error. Improve IT productivity in the data center with innovative at-the-server management tools, like iDRAC Quick Sync and iDRAC Direct to deliver in-depth system health status and speed deployment. Optimize data center energy usage with improved performance-per-watt and more granular control of power and cooling.

Innovative management with intelligent automation

The Dell OpenManage portfolio simplifies and automates server life cycle management tasks by leveraging the incomparable agent-free capabilities of the embedded Dell Remote Access Controller (iDRAC) with Lifecycle Controller. With this technology, server deployment, configuration and updates are streamlined across the OpenManage portfolio and through integration with third-party management solutions. Monitoring and control of Dell EMC and third-party data center hardware is provided by OpenManage Essentials, and with anytime, anywhere mobile access through OpenManage Mobile. OpenManage Essentials now also delivers Server Configuration Management capabilities that automate one:many bare-metal server and OS deployment, providing quick and consistent replication of configurations and ensuring compliance to a predefined baseline configuration with automated drift detection.

PowerEdge R830

- Up to 22 cores per CPU
- Up to 48 DDR4 DIMMS
- Up to 16 x 2.5" HDDs

Feature	PowerEdge R830 technical specification	
Form factor	2U rack	
Dimensions	H: 86.8 mm (3.417 in), W: 482.4 mm (18.99 in), D: 811.06 mm (31.93 in) with PSU and bezel D: 776.46 mm (30.59 in) PSU without bezel	
Processor	Intel® Xeon® processor E5-4600 v4 product family	
Chipset	Intel C612	
Memory	(48 DIMM slots): 8GB/16GB/32GB/64GB DDR4, RDIMM, LRDIMM up 2400MT/s	
Storage	16 x 2.5" SATA/SAS SSD, SAS HDD (15K, 10K), nearline SAS HDD (7.2K)	
Drive bays	Up to 16 x 2.5"	
I/O slots	7 PCIe slots: • 2 x16 half-length, full-height • 1 x8 half-length, full-height • 3 x8 half-length, half-height • 1 x8 half-length, full-height for the RAID controller	
RAID controllers	Internal controllers: PERC H330, PERC H730, PERC H730P External HBAs (RAID): PERC H830 External HBAs (non-RAID): 12Gbps SAS HBA	
Communications	Broadcom® 5720 quad-port 1GbE Base-T (no TOE or iSCSI offload) Broadcom 57800S dual-port 10GbE Base-T with 2 1GbE (TOE and iSCSI offload available on 10GbE ports) Broadcom 57800S dual-port 10GbE SFP+ with 2 1GbE (TOE and iSCSI offload available on 10GbE ports) Intel I350 quad-port 1GbE Base-T (no TOE or iSCSI offload) Intel X540 dual-port 10GbE Base-T with 2 1GbE (FCoE capability enabled on the 10GbE ports)	
Power supplies	Platinum 750W AC, auto-ranging; Platinum 1600W AC, auto-ranging; hot-plug redundant 1100W AC	
Systems management	Systems management: IPMI 2.0 compliant; Dell OpenManage Essentials; Dell OpenManage Mobile; Dell OpenManage Power Center Remote management: iDRAC8 with Lifecycle Controller, iDRAC8 Express (default), iDRAC8 Enterprise (upgrade) 8GB vFlash media (upgrade), 16GB vFlash media (upgrade) iDRAC Quick Sync	Dell OpenManage Integrations: • Dell OpenManage Integration Suite for Microsoft® System Center • Dell OpenManage Integration for VMware® vCenter™ Dell OpenManage Connections: • HP Operations Manager, IBM Tivoli® Netcool® and CA Network and Systems Management • Dell OpenManage Plug-in for Oracle® Database Manager
Rack support	ReadyRails™ II sliding rails for tool-less mounting in 4-post racks with square or unthreaded round holes or tooled mounting in 4-post threaded hole racks, with support for optional tool-less cable management arm.	
Operating systems	Microsoft Windows Server® 2012 R2 Microsoft Windows Server 2012 Novell® SUSE® Linux Enterprise Server Red Hat® Enterprise Linux® VMware vSphere® ESXi® For more information on the specific versions and additions, visit Dell.com/OSsupport .	Optional embedded hypervisors: Microsoft Windows Server with Hyper-V® Citrix® XenServer® VMware vSphere ESXi
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

ProSupport Plus with SupportAssist provides proactive and predictive support for critical systems. ProSupport provides comprehensive hardware and software support. Get more from 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 Financial Services™ has a wide range of options to make technology acquisition easy and affordable. Contact your Dell Sales Representative for more information.*

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 Financial Services™ has a wide range of options to make technology acquisition easy and affordable. Contact your Dell Sales Representative for more information.*

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