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.

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**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.

**Innovative management with intelligent automation**

The Dell OpenManage portfolio simplifies and automates server lifecycle 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.
## 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

**Rack support**
ReadyRails™ II sliding rails for tool-less mounting in 4-post racks with square or unthreaded round holes or tool-less 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™

**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.

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

Learn more at Dell.com/PowerEdge

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