PowerEdge M830

The PowerEdge M830 is a 4-socket converged platform designed to boost application performance, consolidation, and time-to-value in datacenter or remote office applications by delivering vast amounts of compute, memory, and storage resources that are easy to deploy and manage.

Enhance IT workload performance

Up to 72 Intel® processor cores and 48 DIMMS of DDR4 memory offer tremendous computational horsepower for heavy-use workloads in exceptionally demanding database, technical computing and virtualized environments. Get results faster from memory-intensive workloads with DDR4 DIMMs offering 15 percent higher MT/s than DDR3. Feed your IO-intensive workloads with up to 240Mbits of throughput using 24 x 10GbE ports connected to three redundant, low-latency fabrics. Accelerate data-intensive workloads using 12 in-chassis SSDs, with expansion options of up to 25 HDDs (37TB).

Converge IT resources

Save expenses with physical and software-defined consolidation that optimizes application delivery using flexibly tailored IT. Meet business objectives by powering critical workloads with converged solutions designed specifically for data center and small-office environments. Reduce infrastructure sprawl by converging management modules, switches, power and network cabling, disk enclosures, and feature-dense 4S servers into a single chassis. Save floor space, power and cooling costs, and licensing fees by using core-dense M830s to create a software-defined environment from legacy infrastructure. Utilize vast local SSD and memory resources to develop software-defined standalone edge networking and DAS storage with VMware VSAN and Virtual Distributed Switch technologies.

Expedite time to value

Reduce configuration, maintenance, imaging and deployment time and costs by standardizing on a single 4-socket E5-4600v3 platform in existing VRTX or M1000e chassis for remote offices and data centers. Protect software-defined compute, storage and networking with Dell Fault Resilient Memory and redundant embedded hypervisor. Automate operations with agent-free, 1-to-many systems management tools that pre-provision LAN and SAN resources and assist with BIOS, firmware and driver updates. Enable zero-touch discovery and configuration with template-based provisioning.

Simplify and automate your IT management tasks

Manage your blades as you like with the Dell Chassis Management Controller (CMC) — the single, embedded interface for multi-chassis management included with Dell shared infrastructure platforms. The powerful features of the CMC let you manage your M830 blades individually or collectively in groups, in one or multiple chassis, and in one or more locations in your network. Leveraging the incomparable agent-free capabilities of the PowerEdge embedded integrated Dell Remote Access Controller (IDRAC) with Lifecycle Controller 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 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 PowerEdge bare-metal server and OS deployments, quick and consistent replication of configurations and ensure compliance to a predefined baseline with automated drift detection.

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- Up to 57 cores per U using the latest Intel Xeon E5-4600 v3 processors
- Up to 48 DIMMs provide up to 3TB of DDR4 memory per blade
- Up to 12 1.8" SSDs with I/O throughput of up to 240Mbits using 24 x 10GbE ports

Feature	PowerEdge M830 technical specification
Form Factor	Full-height blade with up to 8 nodes in a 10U M1000e chassis; up to two nodes in a VRTX chassis
Processor	Intel® Xeon® processor E5-4600 v3 product family
Processor Sockets	4
Dimensions	**Height:** 15.2 inch (197.92 mm), **Width:** 2 inch (50.35 mm), **Depth:** 19.2 inch (564.9 mm)
Cache	2.5MB per core; core options: 6, 10, 12, 14, 16, 18
Chipset	Intel C610 series chipset
Memory	Up to 1.5TB (48 DIMM slots): 4GB/8GB/16GB/32GB DDR4 up to 2133MT/s
RAID Controllers	**Internal controllers:** PERC S130 (SW RAID), PERC H330, PERC H730, PERC H730P
Primary Storage	**Hot-plug hard drive options:** PowerEdge Express Flash NVMe PCIe SSD, SATA HDD/SSD or SAS HDD/SSD 12 x 1.8" SSD, 4 x 2.5" SATA HDD/SSD or SAS HDD/SSD, 2 x 2.5" PCIe SSD and 2 x 2.5" SATA HDD/SSD or SAS HDD/SSD
On-board Network Adapters	2 x PCIe 3.0 (x8) Dell Select Network Adapters **Select Network Adapter options:** Broadcom 5720 1Gb Quad Port KR Blade Network Daughter Card QLogic 57840S 10Gb Quad Port KR Blade Network Daughter Card QLogic 57810S-k Dual port 10Gb KR Blade Network Daughter Card Emulex OneConnect OCm14102-U4-D, Dual Port 10GbE, KR CNA Network Daughter Card Emulex dual-port 10GB KR Blade Network Daughter Card Intel i350 Quad Port 1 Gigabit, KR Blade Network Daughter Card Intel x520-k dual-port 10Gb KR Blade Network Daughter Card
I/O Expansion Options	4 x PCIe 3.0 (x8) mezzanine cards **Mezzanine card options:** Broadcom® 5719 quad-port 1Gb NIC Broadcom 5720 dual-port 1Gb NIC Broadcom 57810 dual-port 10Gb DA/SFP+ CNA Broadcom 57810 dual-port 10Gb Base-T network adapter Intel Ethernet I350 dual-port 1Gb server adapter Intel Ethernet I350 quad-port 1Gb server adapter Intel Ethernet X540 dual-port 10GBASE-T server adapter Mellanox® ConnectX®-3 dual-port 10Gb Direct Attach/SFP+ server network adapter Mellanox ConnectX-3 dual-port 40Gb Direct Attach/QSFP server network adapter Emulex® LPE 12000, single-port 8Gb Fibre Channel HBA Emulex LPE 12002, dual-port 8Gb Fibre Channel HBA Emulex LPe16000B, single-port 16Gb Fibre Channel HBA Emulex LPe16002B, dual-port 16Gb Fibre Channel HBA Emulex OneConnect OCe14102-U1-D 2-port PCIe 10GbE CNA Emulex OneConnect OCe14102-U1-D 2-port PCIe 10GbE CNA QLogic® 2560, single-port 8Gb Optical Fibre Channel HBA QLogic 2562, dual-port 8Gb Optical Fibre Channel HBA Qlogic 2660, single-port 16GB, Fibre Channel HBA, full height Qlogic 2662, dual-port 16GB, Fibre Channel HBA, full height
Power supplies	**Chassis level** – M1000e 2700W Platinum and 3000W Titanium PSU options
Video Card	**Video Type:** Integrated Integrated Matrox G200 with iDRAC8 **Video Memory:** 16 MB shared with iDRAC8 application memory
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) **Dell OpenManage Integrations:** Dell OpenManage Integration Suite forMicrosoft® 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
Operating System	Microsoft® Windows Server® 2008 R2 Microsoft Windows Server 2012 Microsoft Windows Server 2012 R2 Microsoft Windows® HPC Server 2008 Novell® SUSE® Linux Enterprise Server Red Hat® Enterprise Linux VMware® ESX®
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

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