Dell PowerEdge M420

The Dell™ PowerEdge™ M420 quarter-height blade server delivers unprecedented computational density, allowing up to 32 individually serviceable blade servers per chassis, with no compromise on enterprise-class features.

Enjoy remarkable computational density with the PowerEdge M420, capable of deploying 32 server nodes in just 10U of rack space. Scaling up to 16 processor cores and 192GB of RAM, each M420 couples processing power and memory capacity with tremendous I/O throughput, with up to four ports of 10Gb ethernet available in an exceptionally compact, individually serviceable form factor. From entry and mid-tier business applications, to high node-count virtual environments, and even distributed workloads such as cloud or high perfromance computing (HPC) environments, the M420 provides advantages for virtually any data center where a large number of computational nodes need to be deployed in minimal space.

Ensure business continuity

Dell's no-compromise approach towards enterprise-class features on our M-series blade servers is not limited by the M420's ultra-dense form-factor. The fully redundant and individually serviceable M420 platform offers such capabilities as hardware RAID and hot-pluggable dual solid-state drives in order to ensure maximum uptime. Dell's unique failsafe virtualization technology even extends the redundancy and resiliency of the M420 to virtual environments, offering a redundant, failover-capable infrastructure for embedded hypervisors.

Improve operational efficiency

Help manage your servers using the Dell OpenManage™ portfolio, including Dell's exclusive Integrated Dell Remote Access Controller (iDRAC) with Lifecycle Controller. iDRAC, an embedded systems management feature, allows Dell servers to be managed in physical, virtual, local and remote environments, either in-band or out-of-band and with or without a systems management software agent. OpenManage also integrates and connects to leading third-party systems management solutions you may already use, allowing you to maintain a single point of control and capitalize on your existing investment. OpenManage simplifies the lifecycle of deploying, updating, monitoring, and maintaining your PowerEdge servers.

PowerEdge M-series blade server line

Implement the right combination of features and performance scalability with the PowerEdge M-series blade servers, which can handle tough workloads in any size data centers. In addition to the world-class management features provided in all PowerEdge servers, the M420 also takes advantage of the capabilities of the M1000e Chassis Management Controller (CMC). The CMC allows M-series blades to be managed individually or as groups, in single or multiple chassis, and within a data center or in multiple geographically dispersed locations around the globe without requiring a single agent or additional hardware. In addition to the existing networking infrastructure, the new Dell Force10 MXL 10Gb switch provides next-generation port density and bandwidth for exceptional throughput. PowerEdge M-series blade servers use the redundant power and cooling infrastructure provided by the Dell M1000e blade enclosure, which is exceptionally easy to deploy and manage, and maximizes power and cooling efficiency.

PowerEdge M420

- Ultra-dense, quarter-height blade

- Individually serviceable

- Hot-plug solid-state drives and hardware RAID

- Impressive systems management capabilities

- Leverages M1000e enclosure

Feature	PowerEdge M420 technical specification
Form factor	Quarter-height blade
Enclosure	Dell™ PowerEdge™ M1000e Blade Enclosure
Processors	Intel® Xeon® processor E5-2400 product family
Internal interconnect	Intel QuickPath Interconnect (QPI): 6.4GT/s, 7.2GT/s, 8.0GT/s
Cache	2.5MB per core; core options: 4, 6, 8
Memory[1]	Up to 192GB (6 DIMM slots): 2GB/4GB/8GB/16GB/32GB DDR3 up to 1600MT/s
Chipset	Intel C600
Primary storage[1]	**Hot-plug hard drive options:** Up to two 1.8" uSATA SSD drives (50GB and 200GB) **External storage:** For information about Dell external storage options, visit Dell.com/Storage.
USB ports	2 front
NIC/LOM	Embedded Broadcom® 57810S-k Dual Port 10Gb LOM
I/O mezzanine card options	**Ethernet:** Broadcom 5719 Quad Port 1Gb Intel I350 Quad Port 1Gb **1Gb/10Gb adapters:** Brocade® BR1741M-k Dual Port 10Gb CNA QLogic® QME8262-k Dual Port 10Gb KR CNA Broadcom 57810S-k Dual Port 10Gb KR Intel Ethernet X520-x/k Dual Port 10Gb Intel I350 Quad Port 1Gb Broadcom 5719 Quad Port 1Gb **Fibre channel:** QLogic QME2662 (FC16) Emulex® LPm16002B-D (FC16) QLogic QME2572 (FC8) Emulex LPe1205-M (FC8) **InfiniBand:** Mellanox® ConnectX®-3 SFF FDR10
I/O slots	One PCIe 3.0 x8 fully populated mezzanine card slot and switch modules yields 2 redundant I/O fabrics per blade
RAID controller	Internal controller: PERC H310
Power supplies and fans	Supplied by M1000e Blade Enclosure
Remote management	iDRAC7 with Lifecycle Controller for Blades (default), iDRAC7 Enterprise with Lifecycle Controller (upgrade option)
Systems management	IPMI 2.0 compliant Dell OpenManage™ Essentials and Dell Management Console Dell OpenManage Power Center Dell OpenManage Connections: • OpenManage Integration Suite for Microsoft® System Center • Dell plug-in for VMware® vCenter™ • HP Operations Manager, IBM Tivoli® Netcool®, and CA Network and Systems Management
Operating systems	Microsoft Windows Server® 2012 Microsoft Windows Server 2012 Essentials Microsoft Windows Server 2008 R2 SP1, x64 (includes Hyper-V® v2) Novell® SUSE® Linux Enterprise Server Red Hat® Enterprise Linux® **Virtualization options:** Citrix® XenServer® VMware® vSphere® ESX™ and ESXi™ Red Hat Enterprise Virtualization® For more information on the specific versions and additions, visit Dell.com/OSsupport.
Embedded hypervisor	Two internal SD cards dedicated for hypervisor or one SD card dedicated for vFlash media support

For more information about the Dell blade solution, see the PowerEdge M1000e Technical Guide or the M1000e Blade Chassis Specification Sheet.

[1] GB means 1 billion bytes and TB equals 1 trillion bytes; actual capacity varies with preloaded material and operating environment and will be less.

Learn more at Dell.com/PowerEdge