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# 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 performance 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	M1000e Blade Enclosure
Processors	Intel® Xeon® processor E5-2400 product family
Internal interconnect	Intel QuickPath Interconnect (QPI): 6.4 GT/s; 7.2 GT/s; 8.0 GT/s
Cache	2.5MB per core; core options: 4, 6, 8
Memory <sup>1</sup>	Up to 6 DIMM slots and 4GB/8GB/16GB/32GB DDR3 up to 1600MHz
Chipset	Intel C600
Primary storage <sup>1</sup>	<b>Hot-plug hard drive options:</b> Up to two 1.8" SATA SSD (50GB or 200GB) <b>External storage:</b> For information about Dell external storage options, visit <a href="http://Dell.com/Storage">Dell.com/Storage</a> .
USB ports	2 front
I/O mezzanine card options	<p><b>Ethernet:</b> Broadcom® Dual Port 10Gb Ethernet (BCM57810S) LOM Intel Dual Port X520 Ethernet 10GbE KX4-KR Broadcom 5719 QP 1GbE Intel I350 QP 1GbE</p> <p><b>10Gb Enhanced Ethernet and Converged Network Adapters (CEE/DCB/FCoE):</b> Brocade® BR1741M Dual Port 10GbE Converged Network Adapter Broadcom 57810S Dual Port 10GbE KR Converged Network Adapter QLogic® Dual Port Converged Network Adapter QLogic (QME8262-K) KR</p> <p><b>Infiniband:</b> Mellanox® Connect-X3 SFF DDR/QDR Mellanox Connect-X3 SFF FDR</p> <p><b>Fibre channel:</b> QLogic Dual Port FC8 Fibre Channel Host Bus Adapter (HBA) (QME2572) Emulex® LightPulse FC8 Fibre Channel HBA Embedded (LPE1205-M)</p>
I/O slots	Fully populated mezzanine card slots and switch modules yield three redundant I/O fabrics per blade.
RAID controller	Internal controller: PERC H310
Power supplies and fans	Supplied by Dell™ PowerEdge™ M1000e Blade Enclosure
Remote management	iDRAC7 with Lifecycle Controller for Blades (default), iDRAC7 Enterprise with Lifecycle Controller (upgrade option)
Systems management	<p>IPMI 2.0 compliant Dell OpenManage™ Essentials and Dell Management Console Dell OpenManage Power Center Dell OpenManage Connections:</p> <ul style="list-style-type: none"> <li>OpenManage Integration Suite for Microsoft® System Center</li> <li>Dell plug-in for VMware® vCenter™</li> <li>HP Operations Manager, IBM Tivoli® Netcool®, and CA Network and Systems Management</li> </ul>
Operating systems	<p>Microsoft Windows Server® 2008 R2 SP1, x64 (includes Hyper-V™ v2) Microsoft Windows® Small Business Server 2011 SUSE® Linux® Enterprise Server Red Hat® Enterprise Linux</p> <p><b>Virtualization options:</b> Citrix® XenServer™ VMware® vSphere For more information on the specific versions and additions, visit <a href="http://Dell.com/OSsupport">Dell.com/OSsupport</a>.</p>
Embedded hypervisor	Two internal SD cards dedicated for hypervisor One dedicated for vFlash media support
<b>For more information about the Dell blade solution, see the <a href="#">PowerEdge M1000e Technical Guide</a> or the <a href="#">M1000e Blade Chassis Specification Sheet</a>.</b>	

<sup>1</sup> GB means 1 billion bytes and TB equals 1 trillion bytes; actual capacity varies with preloaded material and operating environment and will be less.

## Global services and support

Dell Services can help reduce IT complexity, lower costs, and eliminate inefficiencies by making IT and business solutions work harder for you. The Dell Services team takes a holistic view of your needs and designs solutions for your environment and business objectives while leveraging proven delivery methods, local talent, and in-depth domain knowledge for the lowest total cost of ownership.

Learn more at [Dell.com/Partner/PowerEdge](http://Dell.com/Partner/PowerEdge)

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