



# Dell PowerEdge M820

The Dell™ PowerEdge™ M820 blade server delivers exceptional performance and scalability for core business applications or consolidated environments with no compromise on enterprise-class features.

The PowerEdge M820's scalability makes it a perfect fit for core business applications or consolidated workloads. Virtual environments supporting large numbers of sizeable virtual machines will find the M820 a perfect choice. With up to four Intel® Xeon® E5-4600 processors and up to 1.5TB of RAM per node—12TB of memory in just a single M1000e chassis—the M820's remarkable computational capability and memory scalability can address even the toughest demands. With Dell's Select Network Adapter, you can fully customize the I/O capabilities of the M820 to match the networking technology that's right for your applications.

## Ensure business continuity

Ensure maximum uptime with the fully redundant M-series power, cooling and networking infrastructure designed to provide the stability and resiliency our customers demand for Enterprise-class deployments. The M820's design matches Dell's commitment to reliability, with features such as multiple hardware RAID choices and our unique failsafe virtualization technology, which utilizes redundant SD media to provide failover capabilities 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 Dell PowerEdge servers.

## The PowerEdge M-series blade server line

Implement the right combination of features and performance scalability with the PowerEdge M-series blade servers that can handle tough workloads in any size data centers. In addition to the world-class management features provided in all PowerEdge servers, the M820 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. PowerEdge M-series blade servers use the redundant power, cooling, and networking infrastructure provided by the Dell M1000e blade enclosure, which is exceptionally easy to deploy and manage and maximizes power and cooling efficiency.

## PowerEdge M820

- Up to 4 Intel processors and 48 DIMMs
- Exceptional performance and scalability
- Impressive systems management capabilities
- Leverages M1000e enclosure

Feature	PowerEdge M820 technical specification
Form factor	Full-height blade
Enclosure	Dell™ PowerEdge™ M1000e Blade Enclosure
Processors	Intel® Xeon® processor E5-4600 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 <sup>1</sup>	Up to 1.5TB (48 DIMM slots): 4GB/8GB/16GB/32GB DDR3 up to 1600MT/s
Chipset	Intel C600 series
Primary storage <sup>1</sup>	<b>Hot-plug hard drive options:</b> Up to four 2.5" SAS, SSD, or up to two Express Flash PCIe SSD. <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 options	<p><b>Dell Select Network Adapter options:</b> Broadcom® 57810S-k Dual Port 10Gb KR blade NDC Intel X520-k Dual Port 10Gb KR blade NDC QLogic® QMD8262-k Dual Port 10Gb NDC</p> <p><b>1Gb/10Gb adapters:</b> 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-K Dual Port 10Gb Intel I350 Quad Port 1Gb Broadcom 5719 Quad Port 1Gb</p> <p><b>Fibre Channel:</b> QLogic QME2662 (FC16) Emulex® LPM16002B-D (FC16) QLogic QME2572 (FC8) Emulex LPe1205-M (FC8)</p> <p><b>InfiniBand:</b> Mellanox® ConnectX®-3 Dual Port FDR10</p>
I/O slots	Fully populated mezzanine card slots and switch modules yield three redundant I/O fabrics per blade.
RAID controller	<b>Internal controllers:</b> PERC H310 PERC H710 PERC H710P
Power supplies and fans	Supplied by M1000e Blade Enclosure
Remote management	iDRAC7 Express for Blades with Lifecycle Controller (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: <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	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®
Embedded hypervisor	Two internal SD cards dedicated for hypervisor One dedicated for vFlash media support
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> .	

<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/PowerEdge](http://Dell.com/PowerEdge)

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