



# Dell PowerEdge M610

The Dell™ PowerEdge™ M610 offers a robust and scalable enterprise platform that can help you simplify and save on IT expenses.

## Strong IT foundation

To build the most efficient data center solutions, Dell sought input from IT professionals. You asked for reliability, scalability, energy efficiency, and a lower total cost of ownership (TCO). Our M610 blade servers deliver, becoming the cornerstone of a high-performance data center capable of keeping pace with your changing business demands.

## Purposeful design

Designed with your needs in mind, the M610 uses the Intel® Xeon® processor 5500 and 5600 series. These processors adapt to your software in real time, processing more tasks simultaneously. Using Intel® Turbo Boost Technology, the M-Series blades can increase performance during peak usage periods. When demand decreases, Intel® Intelligent Power Technology helps reduce operating costs and energy usage by proactively putting your server into lower power states.

The M610 delivers quick virtualization with software from leading industry vendors by offering optional integrated SD storage or internal USB for embedded hypervisors, and includes the features necessary to meet the demands for performance, high availability and redundancy in modern data centers, such as a large memory capacity of up to 192GB of total RAM.

## Scalability for growth

As your application needs increase, M610 blades allow you to scale up to 192 cores and 3072GB of memory per 10U chassis, with opportunities for even greater capacities in the future.

To keep pace with changing requirements, you can effectively scale I/O application bandwidth with end-to-end 10Gbe or Fibre Channel solutions. Use NPIV and Port Aggregator modes on a variety of switches to virtualize Ethernet or Fibre Channel ports for integration into heterogeneous fabrics. By harnessing Dell's FlexIO modular switches, you can cost-effectively scale your I/O needs, adding ports and functionality through expansion modules—including 10Gb uplinks and stacking ports—instead of needing to buy complete new switches. Dell provides a range of solutions for building on your investment to avoid costly “rip and replace” scenarios.

## Smart investment

The M610 is a foundational component of smart M-Series blade solutions that can help protect your infrastructure investments, simplify your IT environment, and drive real and sustainable savings in power efficiency and productivity. Features include:

- A future-ready, passive midplane capable of supporting multiple generations of blade servers and a full array of upcoming I/O technologies
- FlexIO eliminates “rip and replace” blade switch upgrades; modularity is built into the switches

- FlexAddress™ technology simplifies efforts and interactions between server and networking teams by providing slot-assigned, persistent WWN/iSCSI/MAC addresses for maintenance, without additional management tools or proprietary hardware
- Energy Smart Technologies, including ultra-efficient fans and power supplies for outstanding energy efficiency

With savings in time and money previously needed for maintenance, you free up resources that can be used for true innovation.

## Simplified systems management

The next generation Dell™ OpenManage™ suite offers enhanced operations and standards-based commands designed to integrate with existing systems for effective control.

## Lifecycle controller

Lifecycle Controller is the engine for advanced systems management integrated on the server. Lifecycle Controller simplifies administrator tasks so you can perform a complete set of provisioning functions such as system deployment, system updates, hardware configuration and diagnostics from a single intuitive interface called Unified Server Configurator (USC) in a pre-OS environment. This eliminates the need to use and maintain multiple pieces of disparate CD/DVD media.

The Dell PowerEdge M610 blade server helps cut operating expenses through energy efficiency, product flexibility, and efficient use of data center space.

Feature	PowerEdge M610 technical specification
<b>Processors</b>	Quad-core or six-core Intel® Xeon® processors 5500 and 5600 series
<b>Chipset</b>	Intel 5520
<b>Memory<sup>1</sup></b>	Up to 192GB (12 DIMM slots): 1GB/2GB/4GB/8GB/16GB ECC DDR3 up to 1333MHz
<b>Drive bays</b>	Two 2.5" SAS/Solid State hot-swappable drives
<b>Storage<sup>1</sup></b>	<p><b>Hot-plug hard drive options:</b> 2.5" SAS SSD, SATA SSD, SAS (15K, 10K), nearline SAS (7.2K), SATA (7.2K)</p> <p><b>Maximum internal storage:</b> Up to 1.8TB per blade</p> <p><b>External storage:</b> For information about Dell external storage options, visit <a href="http://Dell.com/Storage">Dell.com/Storage</a>.</p>
<b>RAID controller options</b>	<p><b>Internal:</b> PERC H200 Modular (6Gb/s) PERC H700 Modular (6Gb/s) with 512MB battery-backed cache; 512MB, 1GB Non-Volatile battery-backed cache SAS 6/iR Modular CERC 6/i Modular PERC 6/i Modular with 256MB battery-backed cache</p>
<b>I/O mezzanine card options</b>	<p><b>1Gb and 10Gb Ethernet:</b> Dual-Port Broadcom® Gb Ethernet with TOE (BCM-5709S) Quad-Port Intel Gb Ethernet (82576) Quad-Port Broadcom Gb Ethernet Dual-Port Broadcom 10Gb Ethernet (BCM-57711) Brocade® BR1741M-k Dual-Port Mezzanine CNA</p> <p><b>10Gb Enhanced Ethernet and Converged Network Adapters (CEE/DCB):</b> Dual Port Intel 10Gb Enhanced Ethernet Server Adapter X520-DA2 (FCoE Ready for Future Enablement) Dual-Port QLogic® Converged Network Adapter (QME8142) –Supports CEE/DCB 10GbE + FCoE Dual-Port QLogic Converged Network Adapter (QME8242-k) – Supports 10GbE + NPAR</p> <p><b>Fibre Channel:</b> Dual-Port QLogic FC8 Fibre Channel Host Bus Adapter (HBA) (QME2572) Dual-Port Emulex® FC8 Fibre Channel Host Bus Adapter (HBA) (LPe1205-M) Emulex 8 or 4 Gb/s Fibre Channel Pass-Through Module</p> <p><b>InfiniBand:</b> Dual-Port Mellanox® ConnectX Quad Data Rate (QDR) InfiniBand Dual-Port Mellanox ConnectX Dual Data Rate (DDR) InfiniBand</p>
<b>Operating systems</b>	<p>Microsoft® Windows Server® 2008 SP2, x86/x64 (x64 includes Hyper-V®) Microsoft Windows Server 2008 R2 SP1, x64 (includes Hyper-V v2) Microsoft Windows® HPC Server 2008 Novell® SUSE® Linux® Enterprise Server Red Hat® Enterprise Linux Oracle® Solaris™</p> <p><b>Virtualization options:</b> Citrix® XenServer™ Microsoft Hyper-V through Microsoft Windows Server 2008 VMware® vSphere™ 4.1 (including VMware ESX® 4.1, VMware ESXi™ 4.1, or ESXi 5.0)</p> <p>For more information on the specific versions and additions, visit <a href="http://Dell.com/OSsupport">Dell.com/OSsupport</a>.</p>
<b>Featured database applications</b>	<p>Microsoft SQL Server® solutions (see <a href="http://Dell.com/SQL">Dell.com/SQL</a>) Oracle database solutions (see <a href="http://Dell.com/Oracle">Dell.com/Oracle</a>)</p>
<b>Power supply</b>	Supplied by Dell PowerEdge™ M1000e Blade Chassis
<b>Video</b>	Matrox® G200 with 8MB of cache
<b>Systems management</b>	<p>Dell™ OpenManage™ BMC, IPMI 2.0 compliant Unified Server Configurator Lifecycle Controller iDRAC6 Enterprise with optional vFlash media Remote Management: iDRAC6 Enterprise with optional vFlash media</p>
<b>Embedded hypervisor</b>	Optional Embedded SD Media

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

<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.

## Dell Services

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 TCO.

Discover more at [Dell.com/Blades](http://Dell.com/Blades)

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