



Dell PowerEdge M905

The Dell™ PowerEdge™ M905, with its large memory capacity, multiple redundant fabrics and massive total throughput, is an excellent choice for the high-end applications driving modern data centers.

Built for virtualization and engineered to address the key challenges faced by IT personnel, Dell PowerEdge M905 full-height blade servers deliver leading enterprise-class functionality. With features including three highly available, fully redundant I/O fabrics, massive total throughput, and large RAM capacity, these PowerEdge servers are excellent for applications requiring large memory footprints.

Enhanced Virtualization Performance

The Dell PowerEdge M905 blade server was designed from the ground up for enhanced virtualization capabilities. It combines AMD Opteron™ processors with increased RAM capacity and massive I/O to deliver powerful performance for virtual environments.

For high-density virtualization environments demanding the highest available RAM and I/O, the PowerEdge M905 delivers 24 DIMM slots, up to 192GB total RAM, and highly available redundant throughput capacity. Combining an internal SD card for embedded hypervisors with a form factor that minimizes space intrusion, the M905 delivers robust virtualization, database, and application capabilities all in a four-socket server with three highly available I/O fabrics.

Simplified Virtualization

Designed to improve performance across the board for both virtualized and non-virtualized applications, the PowerEdge M905 features AMD's Rapid Virtualization Indexing, which can improve the performance of some virtualized applications by utilizing its Nested Page Table technology.

Further simplifying blade technology and virtualization in business data centers, this full-height blade server offers hypervisors from industry-leading vendors such as VMware®, Citrix® XenServer™, and Microsoft® Hyper-V™ technology. The PowerEdge M905 server provides the ability to begin migrating live virtual machines within minutes of installation in the chassis.

Expanded Network Connectivity

The M905 delivers three highly available, fully redundant fabrics which are necessary for true enterprise-class data access. The proliferation of external storage for ease of management demands this functionality to ensure organizations can always access their data. Dell designed these servers and the M1000e chassis to meet the critical needs of your data center.

Enhanced Energy Efficiency for Increased Productivity

For businesses that require the highest levels of performance while maintaining a low energy footprint, the PowerEdge M905 features AMD PowerNow!™ technology. Utilizing dynamic frequency and voltage support to deliver performance on demand, AMD processors can greatly reduce power consumption without

compromising performance.

The M905 can join other M-Series blade servers in the PowerEdge M1000e Modular Blade Enclosure, further assisting organizations in increasing capacity and lowering operating costs while delivering outstanding performance/watt. Built on Dell™ Energy Smart technology, the M1000e chassis is designed to be one of the most power-efficient blade solutions available. Energy Smart technologies in the M1000e include:

- Ultra-efficient power supplies that deliver high levels of efficiency (>91%) even at low utilization.
- Dynamic Power Supply Engagement that provides maximum power utilization based on system demands.
- Optimized airflow design with ultra-efficient dynamically scaling fans. Nine fans, deployed in three separate cooling zones, help ensure that only the amount of air required by the enclosure is circulated, helping to improve blade and overall data center efficiency.
- Lead-free chassis and blades, with low lead I/O module options.

The Dell Difference

Centralized networks can vastly improve the productivity of individuals and businesses. The PowerEdge M-Series is specifically designed to simplify deploying, managing, and maintaining networks for years to come. The M-Series offers industry-leading switch flexibility with Flex/IO and unmatched ease of use with FlexAddress™ for persistent WWN/MAC addresses.

Built for virtualization and engineered to address the key challenges faced by IT personnel, Dell PowerEdge M905 blade servers deliver leading enterprise-class functionality.

| Feature | Technical Specifications |
|--------------------------------|--|
| Processors | Up to Six-Core AMD Opteron 8000 series processors |
| Chipset | NVIDIA® MCP55 |
| Memory ¹ | 24 DIMM slots 1GB/2GB/4GB ECC DDR2 667/800MHz Options Support for up to 192GB1 using 24x8GB DIMMs |
| Drive Bays | Two 2.5" Hot-Swappable SAS/Solid State Drives |
| Storage ¹ | <p>Up to two Hot-Swappable Internal Drives: 2.5" SAS (10K rpm): 73GB, 146GB, 300GB, 600GB 2.5" SAS (15K rpm): 36GB, 73GB or 146GB 25GB2, 50GB2 Solid State Drive (SSD)</p> <p>Up to two Hot-Swappable Internal Drives: Up to 600GB2 per blade via two 2.5" 300GB hot-swappable SAS (10k rpm) hard drives</p> <p>External Storage Options: Dell™ EqualLogic™ PS5000 Series PowerVault™ NX1950 Unified Storage Solution PowerVault™ MD3000i</p> <p>Dell/EMC products: Dell/EMC fibre channel and/or iSCSI external storage, including Dell/EMC AX150i, CX300, CX3-10c, CX3-20, CX3-40, and CX3-80</p> |
| RAID Controller Options | SAS6/IR (Raid 0/1) hardware based CERC6/IR (Raid 0/1 w/ Cache) PERC 6i Modular (RAID 0/1 w/ battery-backed cache) PERC 6.2 Firmware |
| I/O Mezzanine Card Options | <p>1Gb & 10Gb Ethernet: Dual-Port Broadcom® Gb Ethernet w/ TOE (BCM-5709S) Quad-Port Intel Gb Ethernet (BCM-82576) Quad-Port Broadcom® Gb Ethernet (BCM-5709S) Dual-Port Broadcom® 10Gb Ethernet (BCM-57711) Brocade® BR1741M-k Dual-Port Mezzanine CNA</p> <p>10Gb Enhanced Ethernet & Converged Network Adapters (CEE/DCB): Dual-Port QLogic® Converged Network Adapter (QME8142) - Supports CEE/DCB 10GbE + FCoE</p> <p>Fibre Channel: 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>InfiniBand: Dual-Port Mellanox® ConnectX Quad Data Rate (QDR) InfiniBand Dual-Port Mellanox® ConnectX Dual Data Rate (DDR) InfiniBand</p> |
| Operating Systems | <p>Microsoft® Windows® Essential Business Server 2008 Microsoft® Windows Server® 2008 SP2, x86/x64 (x64 includes Hyper-V™) Microsoft® Windows Server® 2008 R2, x64 (includes Hyper-V™ v2) Microsoft® Windows® HPC Server 2008 Novell® SUSE® Linux® Enterprise Server Red Hat® Enterprise Linux® Sun® Solaris™</p> <p>Virtualization Options: Citrix® XenServer™ Microsoft® Hyper-V™ via Microsoft® Windows Server® 2008 VMware® vSphere™ 4.1 (including VMware ESX® 4.1 or VMware ESXi™ 4.1)</p> <p>For more information on the specific versions and additions, visit www.dell.com/OSsupport.</p> |
| Featured Database Applications | Microsoft® SQL Server® solutions (see Dell.com/SQL) Oracle® database solutions (see Dell.com/Oracle) |
| Power Supply | Supplied by Dell™ PowerEdge™ M1000e Blade Chassis |
| Video | ATI® RN50 (32MB Memory) |
| Systems Management | Dell OpenManage™ Software Tools Altiris™ Deployment Solution for Dell Blade Servers Integrated Dell Remote Access Controller (iDRAC) with: |
| Embedded Hypervisor | 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](#).

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.

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.

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