



CUTTING-EDGE SOLUTIONS FOR TODAY AND TOMORROW

DELL™ POWEREDGE™ M-SERIES BLADE SERVERS



SIMPLIFYING IT

The Dell™ PowerEdge™ M-Series blade servers address the challenges of an evolving IT environment by delivering leading enterprise-class features and functionality. The M-Series delivers a unique array of options configured to meet the needs of your IT environment both now and in the future.

- Multiple blade form-factor choices
- Long life cycle providing better life cycle management and improved TCO
- Modular I/O switches for future scalability
- Breakthrough fan technologies for reduction in power consumption
- Configuration management via chassis management controller
- Persistent MAC/WWN/iSCSI addresses in a switch-agnostic environment

THE DELL DIFFERENCE

SIMPLE MANAGEABILITY

Dell recognizes the importance of simplifying IT management, which is why Dell's blade solutions deliver easy management functionalities. These features include the world's first fully modular blade enclosure, easy, expandable I/O switches, and an interactive LCD panel for deployment and local troubleshooting, with a deployment wizard for easy setup. With the addition of Dell's FlexAddress technology for persistent WWN/MAC addresses, PowerEdge M-Series blade servers allow you to focus on managing your organization, not your data center. At Dell, we launched FC8 and 10GbE and created the first blade chassis to have Quad Data Rate InfiniBand®.

INCREASED FLEXIBILITY

Designed to lead the industry in rapid and easy setup and deployment, Dell M-Series blade servers feature modular I/O switches, in addition to two 1Gb integrated NICs, for easy upgradeability and a passive midplane that can handle 40Gb/s on four mezzanine ports per half-height slot. These features provide you with an easy and effective solution for scaling your I/O infrastructure, which can deliver significant savings in time, cabling, and switch port costs.

ENERGY EFFICIENCY

The Dell M-Series blades are designed for energy efficiency and density to address the growing power consumption and space constraints in your data center. Continuing their sustained commitment and leadership in energy efficiency, Dell has created the most power-efficient mainstream blade solution on the market featuring active, dynamically scaled zoned cooling. From these fan technologies with active zoned cooling, to ultra-efficient power supplies that offer dynamic control and power monitoring, the M-Series will provide you with the outstanding power efficiency your data center needs from a single blade through a fully populated chassis.

FAST, INNOVATIVE DELL™ M-SERIES BLADES:

POWEREDGE M605, M805, AND M905: INNOVATIVE ENTERPRISE SERVER ARCHITECTURE

Designed for IT environments needing expanded virtualization and database capabilities, the Dell PowerEdge™ M805 and M905 full-height blade servers deliver increased performance, network connectivity, I/O capacity, database and virtualization capabilities, and improved energy efficiencies.

In addition to the full-height versions of the M-Series, the Dell PowerEdge M605 half-height blade server is equipped to streamline your data center today and scale to tackle the challenges of tomorrow. The M605 is designed to combat data center sprawl and IT complexity with the most energy-efficient, flexible, and manageable blade server solutions available to IT departments.

INTEGRATED PERFORMANCE

Featuring the latest AMD Opteron™ Quad-Core Processors, the M605, M805, and M905 can simplify IT by helping improve application performance, lower security risks, and reduce operational complexity. With optional factory-integrated virtualization capabilities, the M805 and M905 can help streamline virtualization deployment and provide ease-of-use in virtual environments.

OPTIMIZED ENERGY EFFICIENCY

Designed for greater energy efficiency and density, the PowerEdge M-Series addresses the growing power consumption and space constraints of your data center.



PowerEdge M805



PowerEdge M605

For businesses that require high performance while maintaining a low-energy footprint, the M-Series features AMD PowerNow!™ technology. Utilizing dynamic frequency and voltage support to deliver performance on demand, the M605, M805, and M905 can greatly reduce power consumption without compromising performance.

Dell PowerEdge M-Series blades provide a simplified, cost-effective solution for data center flexibility and energy efficiency, all while reducing the complexity of managing computing resources.

RELIABLE MODULAR COMPUTING

POWEREDGE M1000e: THE NEXT GENERATION OF BLADE CHASSIS

The Dell™ PowerEdge™ M1000e Modular Blade Enclosure is a breakthrough in enterprise server architecture. Flexible and scalable, the M1000e is designed to support future generations of blade servers regardless of processor/chipset architecture and I/O needs. This future support includes enabling multiple generations of servers living in the same chassis.

EASY TO USE, EASY TO MANAGE

Using centralized chassis management controllers, the M1000e provides redundant, secure access paths for IT administrators to manage multiple enclosures and blades from a single console. One of the only blade solutions with an integrated KVM switch, the M1000e enables easy setup and deployment and seamless integration into an existing KVM infrastructure without requiring dongles or extra switches. This makes the PowerEdge M1000e one of the easiest blade solutions to deploy and manage.

Only Dell provides complete scale-on-demand switch designs. With the M-Series' additional I/O slots and switch options, you have the flexibility needed to meet your increasing and demanding I/O requirements. The M1000e helps reduce the cost and complexity of managing computing resources so you can focus on growing your business and managing your organization. Convenient features such as redundant centralized chassis management controllers, dynamic power management, real-time power reporting, and integrated KVM technology for concurrent remote access to all blades make server management quick and easy. Plus when you order a chassis/blade solution, every PowerEdge blade server is fully tested and then installed at the factory.

BLADE ENCLOSURES BUILT FOR MAXIMUM ENERGY EFFICIENCY

Built on Dell's Energy Smart technology, the M1000e is one of the most power-efficient blade solutions on the market.

All Dell M-Series Blades are fully compatible in the M1000e enclosure to help increase capacity, lower operating costs, and deliver better performance/watt than blade competitors.¹ The M1000e enclosure takes advantage of Energy Smart thermal design efficiencies, such as ultra-efficient power supplies and dynamic power-efficient fans with optimized airflow design to efficiently cool the chassis and enable better performance in a lower power envelope.

DELL SUPPORT AND SERVICES

Dell Services and ProSupport options align with the way organizations use technology — rapidly responding to their needs and helping to protect their investment, productivity, and sensitive data. We can also provide enhanced proactive support options to help reduce the risk and complexity of managing infrastructure.

FLEXADDRESS, THE SIMPLE LOW-COST WAY TO LIMIT DOWNTIME

FlexAddress delivers persistent network and storage identities, equipping your data center to handle predictable or even unplanned changes — increase, upgrade, or remove servers without affecting the network. Dell's patent pending FlexAddress technology allows any M-Series blade enclosure to lock the World Wide Name (WWN) of the Fibre Channel controller and Media Access Control (MAC) of the Ethernet and iSCSI controller into a blade slot, instead of residing on the blade's hardware as was done in the past. By moving the network and storage identity from the server hardware to the chassis, customers are now able to upgrade and replace components or the entire server without needing to remap or rezone the new server and components. FlexAddress can be implemented in four easy steps. Just select the slots and fabrics you want FlexAddress to be enabled on and the Chassis Management Controller handles everything from there, no matter what I/O modules you choose. Simple, efficient, and effective integration. Simplified IT at its best.



WITHOUT COMPROMISE

POWEREDGE M610 AND M710: STRENGTHEN YOUR IT FOUNDATION

The Dell™ PowerEdge™ M-Series blade servers help cut operating expenses through energy efficiency, product flexibility, and efficient use of data center space. When combined with Dell's best-in-class storage, management, and support offerings, the result is a total enterprise solution that can help you simplify and save on IT expenses. Our next-generation M610 and M710 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, these M-Series blades use the Intel® Xeon® 5500 Series Processors. This processor series adapts to your software in real time, processing more tasks simultaneously. In addition, with Intel® Turbo Boost Technology, the M-Series blades can increase performance during peak usage periods.

To enhance virtualization and database performance, the M610 is designed with 50% more memory capacity than its predecessor. This increased memory capacity saves money by enabling you to use smaller, less-expensive DIMMs to meet your computing needs.

The new full-height PowerEdge M710 delivers full-fabric redundancy (on all three fabrics) for exceptional I/O capacity. Dell's innovative expansion to a full-height form factor enables a significant increase in the total memory capacity of the M710: 18 DIMMs slots and up to 144GB of total RAM.

Both the M610 and M710 include:

- Advanced Systems Management capabilities via the Unified Server Configurator and iDRAC6 Enterprise
- Internal SD card port for the optional embedded hypervisor capability
- Integrated USB port



PowerEdge M710



PowerEdge M610

SCALABILITY FOR GROWTH

As your application needs increase, M-Series blades allow you to scale up to 128 cores and 1536GB 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 FC8 solutions. Virtualize I/O within your M-Series chassis using Cisco's Virtual Blade Switch technology, and manage up to nine Cisco® Ethernet switches as a single switch. Additionally, use NPIV and Port Aggregator modes on a variety of switches to virtualize ethernet or fibre channel ports for integration into heterogeneous fabrics. You can do all this, and still use our FlexAddress technology for persistent WWN/MAC/iSCSI addresses. No limitations.

SIMPLY PUT:

DELL M-SERIES BLADES
DESIGN LEADERSHIP
FOR THE FUTURE

SIMPLIFY YOUR NETWORK AT DELL.COM/PowerEdge

¹ 25% performance/watt claim based on a Principled Technologies report commissioned by Dell, SPECjbb2005 performance and power consumption on Dell, HP, and IBM blade servers — December 2007, comparing 16 blade chassis configurations of the Dell PowerEdge M600 and HP ProLiant BL460c.

