



# POWEREDGE MX840C

## Scalable, high-performance modular server for demanding data-intensive workloads

PowerEdge MX840c, designed for the PowerEdge MX kinetic infrastructure ecosystem, provides dense four-socket compute, memory and storage for the modern data center.

Powerful and flexible, four-socket double-width compute sled powered by up to four 28-core 2<sup>nd</sup> Generation Intel® Xeon® Scalable processors. PowerEdge MX840c features a large memory footprint with up to 48 DDR4 DIMMs slots. It supports up to eight 2.5-inch SAS/SATA (HDD/SDD) or Express Flash NVMe PCIe SSD drives. The PowerEdge MX7000 chassis supports up to four MX840c servers.

- Exceptionally broad memory configuration capacities of up to 3TB (RDIMM) or 6.1TB (LRDIMM); support up to 192GB NVDIMM for large in-memory applications
- Supports up to 24 slots for Intel® Optane™ DC persistent memory DCPMM (12.2TB) with a maximum total capacity of 15.36TB per server
- Choice of optional M.2 Boot Optimized Storage Solution (BOSS) or Internal Dual microSD Module (IDSDM), to streamline operating system and data storage
- Option of Express Flash NVMe PCIe SSD for high performing direct attached storage requirements

### Simplify management and intelligently automate

All PowerEdge server feature the embedded, agent-free integrated Dell Remote Access Controller (iDRAC) 9 with Lifecycle Controller (LC) to simplify server systems management. Dell EMC OpenManage Enterprise – Modular Edition (OME-Modular) provides comprehensive in-system management within the PowerEdge MX7000 server chassis. Delivering key abilities of OpenManage Enterprise systems management, OME-Modular unified web/RESTful API interface manages the entire PowerEdge MX environment, including computer, storage and networking.

- Deploy, monitor, manage, configure, update, troubleshoot and remediate Dell EMC servers from any location, regardless of operating system or hypervisor presence or state.
- Speed systems management performance with enhanced iDRAC9 processor, up to four times better performance over the prior generation.

### Securely run IT operations and workloads

PowerEdge server security is built-in, not bolted-on. The MX840c delivers an immutable silicon-based chain of trust and combines it with comprehensive management tools to provide robust layers of security across hardware and firmware. The result is an integrated Cyber-Resilient Architecture that provides a hardened server design to protect, detect and recover from cyber-attacks.

- Signed firmware updates using SHA-256 hashing with 2048-bit RSA encryption for signature for all key server components
- System Lockdown (requires OpenManage Enterprise) to prevent unauthorized configuration or firmware changes to a server when using Dell EMC tools
- System erase to, with proper authentication, securely and quickly erase data form local storage (HDD/SSD/NVMs) and embedded flash devices

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- 4-Socket compute sled for PowerEdge MX, ideal for demanding, database-driven workloads
- High performance and scalability with exceptionally large memory and highly expandable storage
- Embedded iDRAC9 for easy lifecycle management

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Features	Technical Specification	
Processor	Two or four 2 <sup>nd</sup> Generation Intel™ Xeon™ Scalable Processors, up to 28 cores per processor Intel® C628 Chipset with optional Intel® QuickAssist Technology	
Memory	48 DIMM slots in total; supports DDR4 RDIMMs, LRDIMMs; up to 2933 MT/s speeds, 3TB maximum (RDIMM), 6TB maximum (LRDIMM)	
Persistent Memory	12 DIMM slots support NVDIMM-N; up to 2933 MT/s, 192GB maximum Supports up to 24 slots for Intel® Optane™ DC persistent memory DCPMM (12.2TB) with a maximum total capacity of 15.36TB per server	
Availability	ECC	
Controllers	Internal controllers: S140 Software RAID, HBA330 Internal SAS HBA, PERC H730P Adapter, PERC H745P Adapter, HBA330 mini-mezzanine SAS HBA Internal boot options: Choice of optional Boot Optimized Storage Solution (BOSS) (2 X M.2 SDDs) or Internal Dual SD Module (IDSMD)	
Drive Bays	Front: Up to 8 x 2.5" SAS/SATA (HDD/SDD) or NVMe PCIe SSD	
Power Supplies	MX7000 chassis: up to 6 3000W; PSU and grid redundancy support	
Fans	MX7000 chassis: 5 rear and 4 front-accessible hot-swap fans	
Dimensions (LxWxD)	610.39mm (24.03 inches) x 250.2mm (9.8 inches) x 85.5mm (3.37 inches)	
Embedded mgmt	<p><b>MX7000 chassis:</b> OpenManage Enterprise Modular Edition (OME-Modular); up to 2 redundant MX9002m management modules Unified control: single management point for server, storage and networking Intelligent automation: Operational template methodology and comprehensive RESTful API Quick Sync 2 Bluetooth Low Energy (BLE)/wireless module</p> <p><b>On compute sled:</b> As every other PowerEdge server, the integrated Dell Remote Access Controller (iDRAC) 9 with Lifecycle Controller (LC) iDRAC Direct iDRAC RESTful API with Redfish</p>	
OpenManage™ SW	OpenManage Enterprise OpenManage Essentials	OpenManage Mobile (OMM) OpenManage Power Center (OMPC)
Integrations & Connections	<p><b>Integrations:</b> Microsoft® System Center VMware® vCenter™ BMC Software (available from BMC) Ansible by Red Hat</p>	<p><b>Connections:</b> Nagios Core and Nagios XI Oracle Enterprise Manager Microfocus Operations Manager (OM) and Operations Manager i (OMi) IBM Tivoli Netcool/OMNibus</p>
Security	TPM 1.2/2.0 (optional) Cryptographically signed firmware Silicon Root of Trust	Secure Boot System Lockdown (requires OpenManage Enterprise) System Erase
Embedded NIC		
Networking Options (NDC)	MX7000 chassis Fabric options: up to 2 pair redundant general purpose switch or pass-through modular bays (Fabrics A and B); redundant pair of storage specific switch bays (Fabric C) Up to 25Gbe, 32Gbps Fibre Channel, 12Gbps SAS	
GPU Options		
Front Ports	1 USB 3.0 port external port	
Internal Ports	1 x USB 3.0 internal port	
Video	Integrated VGA controller in iDRAC, VGA over LAN	
PCIe	4 PCIe 3.0 x 16 mezzanine slots (Fabric A and B) 2 PCIe 3.0 x 16 mini-mezzanine slots (Fabric C)	
OS	Canonical® Ubuntu® Server LTS Citrix Hypervisor™ Microsoft Windows Server® with Hyper-V Red Hat® Enterprise Linux	SUSE® Linux Enterprise Server VMware® ESXi® For specifications and interoperability details, see <a href="http://Dell.com/OSsupport">Dell.com/OSsupport</a> .

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Features	Technical Specification
OEM-ready	From bezel to BIOS to packaging, your servers can look and feel as if they were designed and built by you. For more information, visit <a href="http://Dell.com/OEM">Dell.com/OEM</a> .
Recommended support	Dell ProSupport Plus for critical systems or Dell ProSupport for premium hardware and software support for your PowerEdge solution. Consulting and deployment offerings are also available. Contact your Dell representative today for more information. Availability and terms of Dell Services vary by region. For more information, visit <a href="http://Dell.com/itlifecycleservices">Dell.com/itlifecycleservices</a> .
Dell Financial Services	Deliver results with easy financing. Explore financial options that move at the speed of business. For more information, visit <a href="http://Dell.com/global-financial-services">Dell.com/global-financial-services</a> .

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

### End-to-end technology solutions

Reduce IT complexity, lower costs and eliminate inefficiencies by making IT and business solutions work harder for you. You can count on Dell for end-to-end solutions to maximize your performance and uptime. A proven leader in Servers, Storage and Networking, Dell Enterprise Solutions and Services deliver innovation at any scale. And if you're looking to preserve cash or increase operational efficiency, Dell Financial Services™ has a wide range of options to make technology acquisition easy and affordable. Contact your Dell Sales Representative for more information.\*\*

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