

# Dell EMC PowerEdge server portfolio: platforms and solutions

Servers are the bedrock of the modern appliance. With consistent, scalable and industry-leading design, Dell EMC servers can help you tackle any workload, from traditional applications to cloud and converged platforms. Build your vision, control your IT life cycle and surround your business with security. Ignite innovation in your organization with the 14th generation of Dell EMC PowerEdge – the No. 1 rack servers in the world.

### Dell EMC award-winning PowerEdge portfolio

- Dell EMC PowerEdge rack servers
- Dell EMC PowerEdge tower servers
- Dell EMC PowerEdge FX Series
- Dell EMC PowerEdge VRTX
- Dell EMC PowerEdge blade servers
- Dell EMC PowerEdge C Series

#### OEM-specific programs

- Dell EMC OEM server appliance branding
- Dell EMC OEM software branding
- Dell EMC OEM-ready program
- Dell EMC OEM XL program

### Dell Technologies' collective force of innovative enterprise solutions



# Next-generation Dell EMC PowerEdge server technologies

Dell EMC PowerEdge servers provide a scalable business architecture, intelligent automation and integrated security for your workloads from traditional applications and virtualization to cloud-native workloads. They deliver the same user experience, and the same integrated management experience across all of our servers, so you have one way to patch, manage, update, refresh and retire servers across the entire data center.

#### Transformation simplified.

The No. 1 platform for hyper-converged architectures is now even better. Enjoy an easy on-ramp to hybrid cloud environments with a scalable cloud foundation, designed for modern workloads and able to adapt to changing business realities.

#### Productivity automated.

Spend less time on routine maintenance and more time on strategic priorities with intelligent management. Enable consistent management across OS/hypervisors with agent-free architecture. Reduce support resolution times by up to 90% with embedded support assist.

#### Protection throughout.

Security is built deep into the hardware and firmware right from the start. In-chip automation and trust engine keeps your systems secure, and server configuration lockdown and secure system erase help PowerEdge meet NIST FIPS 140-2 cryptographic standards.



## Dell EMC PowerEdge servers: the industry's latest technologies combined with Dell EMC's unique innovations

- New OEM-inspired features Give global customers what they need with unprecedented storage density and flexibility, Dell EMC branded XL, tower options, reduced complexity for global customers, improved features and systems management access.
- NVDIMM for persistent memory PowerEdge with NVDIMM dramatically increases speed of access and performance for applications like SQL
- Multi vector cooling Breakthroughs in cooling increase efficiencies and enhance enablement of non-standard adapters
- GPUs Off the shelf, PowerEdge can now support 33% more instances and up to 192 VDI users per server
- Scripting APIs and mobile monitoring iDRAC9 delivers increased automation through powerful scripting APIs such as Redfish RESTful API
- System Security Lockdown PowerEdge has new security settings that shut down updates to protect server configuration / firmware from malicious changes
- Lifecycle optimization The Dell EMC OEM XL program offers enhanced predictability around hardware configurations, so you can better control resources and manage your product lifecycles.

### Accelerate your time to market when you leverage Dell EMC OEM expertise.

For engineering teams that prioritize performance, design and customer experience, Dell EMC OEM delivers proven, customizable Tier-1 infrastructure, so you can optimally run your IP and deliver uninterrupted performance your customers and end users expect.

#### We help you make it your own.

- Start with high-quality standard Dell EMC technologies.
- Configure and customize to achieve your vision (even small lot sizes).
- Strengthen your brand while reducing cost and complexity.



• Branding — Proudly display your logo and brand look on the bezel, chassis, BIOS splash screen, and iDRAC screens.



• Longevity — Choose extended lifecycle (XL) products to maximize longevity and minimize disruptive technology changes.



• Ruggedness - Opt for platforms designed to withstand extreme shock, vibration and/or temperatures.



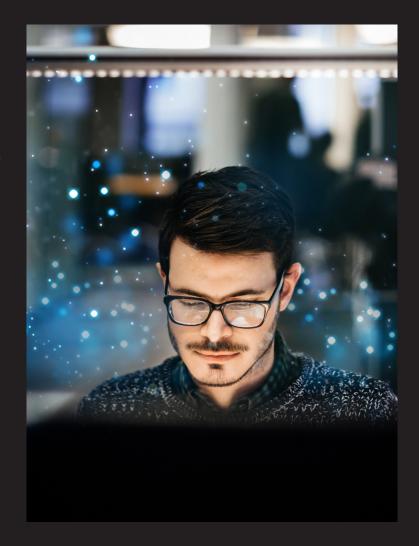
• Security — Take advantage of enhanced security features to lockdown appliances and prevent unauthorized access.



• Integration — We can add your image, applications, peripherals, even non-Dell hardware as the application is being built.

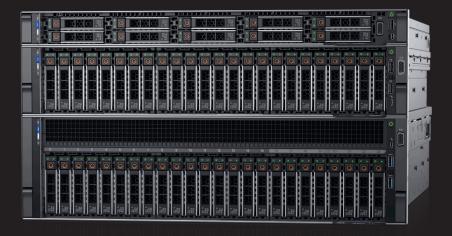


• Fullfillment — Specify custom packaging, labels and manuals— and ship the finished product to you or directly to your customers



# Dell EMC PowerEdge rack servers

Secure, scalable and easy to implement.



These 1-, 2- and 4-socket rack servers are designed to increase solution simplicity, handle modern workloads, and deliver intelligent management and meet the latest in cryptographic security standards.

# Dell EMC PowerEdge tower servers

Worry-free infrastructure with zero compromises.



These 1- and 2-socket tower servers deliver an easy on-ramp to hybrid cloud environments, agent-free architecture for consistent management, and secure system management.

Platform	Description	Processor(s)	Memory	PCI slots	Communications	Hard drives	OEM platform options
R940	Performance 3U, 4-socket server designed to power mission critical applications and real-time decisions. With four sockets and up to 12 NMVe drives, the R940 provides scalable performance in just 3U.	Up to four Intel® Xeon® SP; up to 28 cores per socket	Up to 48 DDR4 DIMMs Up to 2667MT/s	13 PCle 3.0	4 x 1Gb 4 x 10Gb 2 x 10Gb+2x 1Gb 2 x 25Gb	<ul> <li>Up to 24 x 2.5' SAS/ SATA (HDD/SSD)</li> <li>Up to 12 NVMe PCle SSD</li> </ul>	OEM-Ready
R740xd	Performance 2U, 2-socket server delivering a perfect balance between storage scalability and performance. The 2U two-socket platform is ideal for software defined storage, service providers or as virtual desktop infrastructure. Carrier-grade configuration available.	Up to two Intel® Xeon® SP; up to 28 cores per socket	Up to 24 DDR4 DIMMs Up to 2667MT/s	8 PCle 3.0	4 x 1GE 2 x 10GE + 2 x 1GE 4 x 10GE 2 x 25GE	Front bays: Up to 24 x 2.5 SAS/SATA (HDD/SSD), NVMe SSD or up to 12 x 3.5" SAS/SATA HDD  Mid bay: Up to 4 x 3.5" or up to 4 x 2.5" SAS/SATA (HDD/SSD)  Rear bays: Up to 4 x 2.5", SAS/SATA (HDD/SSD), NVMe SSD or up to 2 x 2.5" SAS/SATA (HDD/SSD) or up to 2 x 3.5" SAS/SATA HDD	OEM-Ready OEM XL Carrier-grade teleom
R740	Performance 2U, 2-socket server designed to accelerate application performance leveraging accelerator cards and storage scalability. The 2-socket, 2U platform has the optimum balance of resources to power the most demanding environments. Carrier-grade configuration available.	Up to two Intel® Xeon® SP; up to 28 cores per socket	Up to 24 DDR4 DIMMs Up to 2667MT/s	8 PCle 3.0	4 x 1GE 2 x 10GE + 2 x 1GE 4 x 10GE 2 x 25GE	• Up to 16 x 2.5" SAS/ SATA (HDD/SSD) or up to 8 x 3.5" SAS/ SATA HDD	OEM-Ready OEM XL Carrier-grade telecom

Platform	Description	Processor(s)	Memory	PCI slots	Embedded NICs	Hard drives	OEM platform options
R640	Performance 1U, 2-socket server provides the ideal platform for dense scale-out data center computing. The R640 combines density, performance and scalability to optimize application performance and data center density.	Up to two Intel® Xeon® SP; up to 28 cores per socket	Up to 24 DDR4 DIMMs Up to 2667MT/s	3 PCle 3.0	4 x 1GE 2 x 10GE + 2 x 1GE 4 x 10GE 2 x 25GE	<ul> <li>Front drive bays: Up to 10 x 2.5" SAS/ SATA (HDD/SSD) with up to 8 NVMe SSD or up to 4 x 3.5 SAS/SATA HDD</li> <li>Rear drive bays: Up to 2 x 2.5" SAS/SATA (HDD/SSD), NVMe SSD</li> </ul>	OEM-Ready OEM XL Carrier-grade telecom
R530	Powerful 2U, 2-socket rack server designed for core medium business databases and applications, and for consolidation and virtualization.	Intel Xeon processor E5-2600 v4 product family; up to 18 cores per socket	Up to 12 DDR4 DIMMs	5 PCle slots, including 3 PCle 3.0	1 dual-port 1GbE NIC	• Up to 8 x 3.5" HDDs	OEM-Ready
R430	1U, 2-socket rack server that delivers performance, density and internal expandability for customized workloads.	Intel Xeon processor E5-2600 v4 product family; up to 20 cores per socket	Up to 12 DDR4 DIMMs	2 PCle 3.0	4 x 1GbE LOM	<ul> <li>Up to 10 x 2.5" SATA only</li> <li>Up to 8 x 2.5" SAS, SATA, SSD</li> <li>Up to 4 x 3.5" SAS, SATA, SSD</li> </ul>	OEM-Ready
R420xr Rugged Server	Enterprise-class, short-depth, 1U 2-socket rugged rack server built for military, telecom and harsh environments constrained by size, weight and power.	Intel Xeon processor E5-2400 v2 product family; up to 8 cores per socket	Up to 12 DDR3 DIMMs	Up to 2 PCle 3.0	1 dual-port 1GbE LOM	• Up to 4 x 2.5" SAS or SATA SSD	OEM-Ready Long life Carrier-grade telecom
R330	1U, 1-socket rack server with extensive internal storage capacity and enterprise-class high-availability features.	Intel Xeon processor E3-1200 v5 product family, Intel Core i3, Intel Pentium	Up to 4 DDR4 DIMMs	2 PCle 3.0	2 x 1GbE LOM	• 4 x 3.5" cabled plus optional 2 x 1.8" SSD cabled or 4 x 3.5" hot-plug or 8 x 2.5" hot-plug	OEM-Ready OEM XL
R230	1U, 1-socket entry rack server that delivers performance with expandable internal storage capacity.	Intel Xeon processor E3-1200 v5 product family, Intel Core i3, Intel Pentium	Up to 4 DDR4 DIMMs	2 PCle 3.0	2 x 1GbE LOM	· 2 x 3.5" cabled or 4 x 3.5" cabled or 4 x 3.5" hot-plug	OEM-Ready OEM XL

## Dell EMC PowerEdge tower servers

Platform	Description	Processor(s)	Memory	PCI slots	Embedded NICs	Hard drives	OEM platform options
T630	High-performance 5U, 2-socket rackable tower server with a versatile mix of configuration options, performance and scalability, and massive internal storage capacity.	Intel Xeon processor E5-2600 v4 product family; up to 22 cores per socket; up to 4 GPU accelerators	Up to 24 DDR4 DIMMs	6 PCle 3.0 1 PCle 2.0	4 x 1GbE 2 x 10 GbE	<ul> <li>Up to 32 x 2.5" or 18 x 3.5" HDDs</li> <li>Up to 4 optional PowerEdge Express Flash PCle SSDs</li> </ul>	OEM-Ready
T430	Rackable 2-socket tower server that delivers performance, expandability and reliability with room to grow in a quiet office setting.	Intel Xeon processor E5-2600 v4 product family	Up to 12 DDR4 DIMMs	6 PCle 3.0	2 x 10 GbE LOM	Up to 4 x 3.5"     cabled SAS or SATA drives, or up to 8 hot-plug 3.5" drives, or up to 16 hot-plug 2.5" SAS or SATA drives	OEM-Ready
T330	Rackable 1-socket tower server with extensive internal storage capacity and enterprise-class, high-availability features.	Intel Xeon processor E3-1200 v5 product family, Intel Core i3, Intel Pentium	Up to 4 DDR4 DIMMs	4 PCle 3.0	2 x 10 GbE LOM	・8 x 3.5" hot-plug	OEM-Ready
T130	Compact, quiet and reliable 1-socket tower server with ample performance headroom, data storage capacity and I/O bandwidth to grow.	Intel® Xeon® processor E3-1200 v5 product family, Intel Core i3, Intel Pentium	Up to 4 DDR4 DIMMs	4 PCle 3.0	2 x 10 GbE LOM	• 4 x 3.5" cabled	OEM-Ready

### Dell EMC PowerEdge portfolio

# Dell EMC PowerEdge FX Series

Individually tailored IT platform for enterprise data centers



With industry-leading design, the Dell EMC PowerEdge FX series integrates servers, DAS storage, networking and management in a 2U chassis.

## Dell EMC PowerEdge VRTX

Integrated solutions platform for remote and branch offices



A converged platform designed from the ground up, the Dell EMC PowerEdge VRTX integrates servers, storage, networking and management into a single office-optimized chassis to deliver greater simplicity, efficiency and versatility.

# Dell EMC PowerEdge M Series

Dense modular IT with central management



Designed for data centers in need of maximum density, efficiency and manageability, the Dell EMC PowerEdge M Series integrates servers, storage, networking and management into a single chassis to deliver greater simplicity, efficiency and versatility.

# Dell EMC PowerEdge C Series

Flexible, scale-out cloud and HPC solutions



A complete portfolio of hyperscale-inspired shared systems capable of housing multiple server nodes, the Dell EMC PowerEdge C Series is optimized for distributed workloads, ultra-dense scaled-out environments and cloud deployments.

## Dell EMC PowerEdge FX chassis

Platform	Description	Power supplies	Cooling fans	I/O modules	Management modules
FX2	2U chassis that houses flexible modules of IT resources — servers, DAS storage and I/O — while offering the efficiency of shared power, cooling, management and PCle slots. The switched configuration, the PowerEdge FX2s, supports up to eight low-profile PCle 3.0 expansion slots. The unswitched FX2 configuration is a lower-cost alternative that does not have expansion slots.	Choice of up to 2 hot-pluggable power supplies	8 hot-pluggable, redundant fan modules	Up to 2 pass-through I/O modules (standard), IOAs (optional) for simpler cabling, east/west traffic and LAN/SAN convergence	Choice of rack or chassis management (CMC), integrated, redundant management fabric

## Dell EMC PowerEdge FX server nodes

Platform	Description	Server nodes	Memory	PCIe slots	Communications	Supported drives
FC830	Full-width, 4-socket server with massive memory scalability, expandable storage and powerful processing. Great for core applications and cutting-edge virtualization.	Up to 4 Intel Xeon E5- 4600 v4 processors; up to 22 cores per socket	Up to 48 DDR4 DIMMS (1.5TB) Up to 2400MT/s	Access to 4 PCle slots, up to 8 in certain configurations	Two NDCs supporting up to 2- or 4-port 10Gb or 4-port 1Gb	• Up to 8 x 2.5" HDD/ SSD or 16 x 1.8" SSD
FC630	Half-width 2-socket server best suited for hosting virtualization or running business intelligence applications and databases — ideal for private clouds; up to 4 in a 2U FX2 chassis.	Up to 2 Intel Xeon E5- 2600 v4 processors, up to 22 cores per socket	Up to 24 DDR4 DIMMs Up to 2400MT/s	Access to 2 PCle slots, up to 4 in certain configurations	One NDC supporting up to 2- or 4-port 10Gb or 4-port 1Gb	• Up to 2 x 2.5" HDD/ SSD or 8 x 1.8" SSD
FC430	Ultra-dense 2-socket, quarter-width mainstream server, ideal for distributed environments requiring multi-node reliability and efficiency, with an alternate version for low latency.	Up to 2 Intel Xeon E5- 2600 v4 processors; up to 18 cores per socket	Up to 8 DDR4 DIMMS ( 256GB) Up to 2400MT/s	Access to 1 PCle slot, up to 2 in certain configurations	LOM: 2 x 10GbE or 2 x 1Gb (optional InifiniBand version)	• Up to 2 x 1.8" SSD or 1 x 1.8" SSD (with an InfiniBand port)
FM120x4	Half-width server block that houses 4 separate microservers and provides a high-density, low-cost solution that is ideal for web serving and dedicated hosting, up to 4 in a 2U FX2 chassis (16 servers).	Each microserver has a single Intel Atom™ C2000 processor, up to 8 cores.	Up to 2 DDR3 DIMMs Up to 1600MT/s	No PCle support	2 x 1Gb LOMs	• Up to 2 x 1.8" SSD or 1 x 2.5" HDD/SSD

## Dell EMC PowerEdge FX storage block

Platform	Description	Server nodes	Memory	PCIe slots	Communications	Supported drives
FD332	Half-width storage block that enables up to 16 small form factor (SFF) 2.5" storage devices; up to 3 x FD332 per FX2 chassis.	PowerEdge RAID Controller 9 (PERC9), pass-through I/O; single or dual SAS controllers; mix and match for dual controllers (RAID/non-RAID)	N/A	N/A	N/A	· Up to 16 x hot-plug 2.5" HDD/SSD

## Dell EMC PowerEdge VRTX

Platform	Description	Server nodes	Memory	PCle slots	Embedded NICs	Supported drives
VRTX	Tower or 5U rackable platform that integrates up to 4 server nodes, storage, networking and management into a compact chassis optimized for office environments.	Up to 4 x 2S, half-height M520 server nodes Up to 4 x 2S, half-height M620 or M630 server nodes Up to 2 x 4S, full-height M820 server nodes Or a combination of server nodes	Dependent upon chosen server nodes	3 full-height and 5 half-length	1GbE internal switch module (standard) with 16 x 1GbE ports and 8 external ports Ethernet pass-through module with 8 external ports (optional)	Up to 12 x hot-plug     3.5" SAS or SSD drives     or up to 25 hot-plug     2.5" SAS or SSD drives



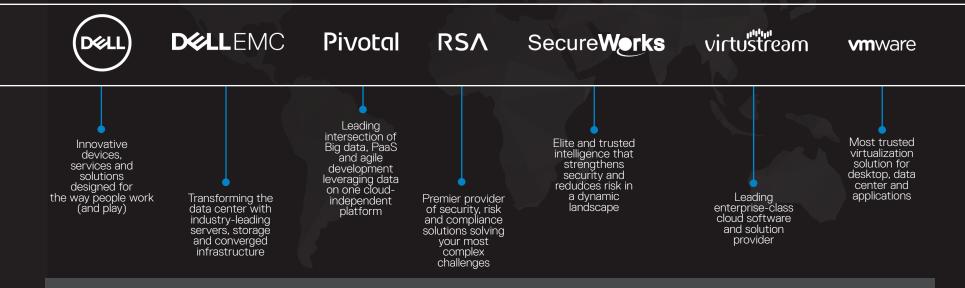
Chassis	Description	Power supplies	Cooling fans	I/O modules	Management modules
	10U fully modular blade enclosure for up to 8 full-height, 16 half-height or 32 quarter-height Dell EMC PowerEdge blade servers.	Choice of up to 6 hot-pluggable power supplies	9 hot-pluggable, redundant fan modules	Up to 6 I/O modules for 3 redundant fabrics; a choice of switches from Dell EMC, Cisco <sup>®</sup> , Brocade <sup>®</sup> and Mellanox <sup>®</sup>	1 standard or 2 redundant Chassis Management Controllers (CMCs); optional integrated KVM switch for "crash cart" management

### Dell EMC PowerEdge blade servers

Platform	Description	Processor(s)	Memory	PCI slots	Embedded NICs	Hard drives	OEM Platform options
M830	Full-height, 4-socket blade server delivers exceptional performance and scalability for core business applications or consolidated environments. Up to 8 in an M1000e.	Intel Xeon E5-4600 v4 product family; up to 22 cores per socket	Up to 48 DDR4 DIMMs Up to 2400MT/s	4 PCle 3.0 mezzanine I/O expansion slots	1 x 2 or 4 port 10Gb or 4 port 1Gb modular SNA	• 4 x 2.5" hot-plug HDD/SSD or 2 x 2.5" PCle SSD and 2 x 2.5" HDD/SSD or 12 x 1.8" hot-plug SSD	N/A
M630	Half-height 2S blade server designed for maximum performance, high density and power efficiency. Up to 16 in an M1000e chassis. Carrier-grade configuration available.	Intel Xeon processor E5-2600 v4 product family up to 22 cores per socket	Up to 24 DDR4 DIMMs Up to 2400MT/s	2 PCle 3.0 mezzanine I/O expansion slots	1 x 2 or 4 port 10Gb or 4 port 1Gb modular SNA	<ul> <li>Up to 2 hot-plug</li> <li>2.5" SAS, SATA,</li> <li>SSD drives or</li> <li>up to 4 x 1.8"</li> <li>SSD drives</li> </ul>	Carrier-grade telecom

Platform	Description	Processor(s)	Memory	PCIe slots	Communications	Supported drives
C4130	Purpose-built, ultra-dense 1U rack server with industry-leading GPU compute capabilities to accelerate the most demanding HPC workloads flexibly and efficiently.	Up to 2 x Intel Xeon processor E5-2600 v4 product family Supports up to 4 300W NVIDIA® Tesla® GPUs or Intel Xeon coprocessors	Up to 16 DDR4 DIMMs Up to 2400MT/s	Up to 2 x low-profile PCle 3.0 (rear)	2 x 1GbE LOM Additional 1GbE, 10GbE or InfiniBand options available	<ul> <li>Up to 2 x 1.8" SATA SSD boot drives</li> <li>Optional data drive tray supports up to 4 x 2.5" SAS/SATA drives</li> </ul>
C6420	Ultra-dense, 4 x 2-socket independent server nodes in shared 2U chassis, optimized for HPC and scale-out workloads and hyperconverged solutions.	Up to two Intel® Xeon® SP; up to 28 cores per socket	Up to 16 DDR4 DIMMs Up to 2667MT/s	1x16 PCle 3.0 (low profile, half length) 1x8 PCle 3.0 Mezzanine (for storage controller) 1x16 PCle 3.0 OCP Mezzanine (for network controller)	1 x 1GE 2 x 10GE SFP+ (OCP Mezzanine)	• 24 x 2.5" with up to 8 NVMe PCle SSD or 12 x 3.5"

# **D¢LL**Technologies



# The Dell EMC PowerEdge server portfolio is the foundation of a comprehensive enterprise systems portfolio that includes:

- · Intelligent storage solutions
- · Comprehensive server virtualization software
- · Enterprise software for information management, data protection, mobile workforce transformation and security
- · Professional services that simplify assessment, design, implementation, management and maintenance

### Learn More at DellEMC.com/oem

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