

A close-up, low-angle shot of a Dell PowerEdge server rack. The server units are dark grey or black, with a prominent Dell logo on the top of one unit. The lighting is dramatic, highlighting the textures and lines of the server hardware.

Dell PowerEdge server portfolio:  
platforms and solutions  
for enterprise applications



# Dell PowerEdge server portfolio: platforms and solutions for enterprise applications



As the foundation for a complete, adaptive IT solution, Dell PowerEdge servers deliver superior agility and reliability, outstanding operational efficiencies and top performance at any scale. With its next-generation servers, Dell is making server innovations more affordable and accessible, putting more power into the hands of more people than ever before.



- Next-generation PowerEdge technologies
- Future-ready PowerEdge solutions
- Application environments
  - Unified communications and collaboration  
Dell solutions for Microsoft Exchange, Lync and Sharepoint
  - Business processing and decision support
  - High-performance computing
  - Virtualization and cloud computing computing
- PowerEdge platforms: traditional infrastructure
  - PowerEdge rack servers
  - PowerEdge tower servers
- PowerEdge platforms: converged infrastructure
  - PowerEdge VRTX
  - PowerEdge M-series blade servers
  - PowerEdge C series
- Dell's comprehensive enterprise solutions

# Next-generation PowerEdge server technologies



The 13th generation of PowerEdge servers represents Dell's most advanced lineup of rack, tower and converged infrastructure platforms and is designed for the widest range of web, enterprise and hyperscale applications. Delivering new levels of flexibility, efficiency and performance, these systems allow IT organizations to:

## Build a scalable, adaptable infrastructure

The flexible, adaptable portfolio of PowerEdge servers can be used as modular building blocks to create an agile, future-ready infrastructure, from the remote office to a large-scale data center.

## Manage from anywhere with more automation and new access options

Dell's OpenManage™ portfolio of systems management tools continues to make enterprise management easier and more efficient with increased automation, simpler tools and mobile device access.

## Increase application performance with scalable, efficient in-server storage

Versatile, powerful in-server storage allows you to accelerate performance of targeted applications with flexible configurations designed to maximize your data center efficiency.



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

- **More processing power** — The Intel® Xeon® processor E5-2600 v3 product family gives a boost to virtualized environments and performance-hungry business applications.
- **High-capacity, low-power memory** — DDR4 memory technology accelerates workloads such as enterprise resource planning and database applications.
- **Scalable, efficient local storage** — Wide range of in-server storage options enables all-flash configurations, in-box hybrid tiered solutions, and low-cost dense capacity platforms, matching server-based storage with application requirements for best performance and value.
- **Simplified, intelligent management** — OpenManage tools accelerate time-to-production with enhanced local access, new mobile devices for secure monitoring of the data center from your handheld device and new automated processes to save time and costs spent on daily tasks.
- **Energy efficiency** — Innovative power and cooling technologies such as Dell Fresh Air 2.0 allow data centers to run at constant temperatures of up to 40°C/104°F, reducing cooling demands and enabling significant operational cost savings.

# Future-ready PowerEdge solutions for any size enterprise



Today's application and end-user demands compel many businesses to seek the benefits of the performance and efficiency typically delivered by hyperscale solutions. IT managers are looking for consistent, stable architectures and scalable server platforms optimized for their specific applications. But many customers don't find these solutions affordable or accessible and continue to look for flexible designs that can help advance their business.

## Applying efficiencies of hyperscale business to general-purpose computing

Dell brings learned efficiencies from our industry-leading hyperscale business into the general-purpose computing of data centers and office IT environments. Dell's next generation of PowerEdge servers provides an industry-leading server platform designed for performance and flexibility with unmatched systems management and versatile onboard storage configurations optimized for key enterprise applications.

## Portfolio optimized for key applications

From general-purpose to distributed applications, the PowerEdge server portfolio offers choices for any size enterprise. As applications drive the infrastructure designs, PowerEdge servers fulfill the needs of various IT environments with a range of offerings designed for efficiency, simplicity and performance.

Key application environments	
<b>Unified communications and collaboration (UC&amp;C)</b>	Empower users to be more productive and engaged while lowering communications costs. With large memory, high bandwidth and flexible local storage options, PowerEdge servers enable business continuity, performance and quality of experience for enterprise telephony, messaging, conferencing and collaborative applications.
<b>Business processing and decision support</b>	Accelerate performance and improve the reliability of your business-critical applications with a range of platforms that enable IT to support data-intensive applications, including decision support, analytics, enterprise resource planning (ERP) and customer relationship management (CRM).
<b>High-performance computing (HPC)</b>	Deliver faster and more predictable results to compute-intensive applications that rely on HPC cluster performance, whether in scientific research, financial markets or commercial big data. With the latest-generation processors, higher I/O, more GPU options and ultra-dense designs, PowerEdge servers support a broad range of technical computing needs.
<b>Virtualization and cloud computing</b>	Optimize your virtualization and cloud environments for improved VM density, streamlined management and enhanced performance. In-server hybrid storage and increased networking bandwidth provide a scalable, software-defined virtual storage platform.



# Unified communications and collaboration

## Dell solutions for Microsoft Exchange



### Enhanced messaging, calendar and contacts

Microsoft® Exchange 2013 and the Microsoft Outlook® 2013 client are key elements of the industry's most comprehensive UC&C solution. Together, they enable email, calendar, contacts and voicemail on a wide range of phones, tablets, notebooks and desktop devices with enhanced security for mobility initiatives.

### Application requirements

While Exchange has evolved to enable very large mailboxes, many legacy deployments are not capable of handling the demands placed on processor, network and storage systems. Modern Exchange environments require in-memory cache for faster response times, flexible memory capacities for a range of implementations and a streamlined architecture to support Microsoft's managed availability strategy. Access to large local storage delivers capacity and performance advantages.

### PowerEdge servers for Microsoft Exchange

Email volume and security threats are stretching older infrastructures to the limit. Organizations are at risk of losing business continuity, data and reputation, especially if running older versions of Exchange. Designed to tackle storage capacity and performance challenges associated with today's email, PowerEdge servers can provide more, larger and better performing mailboxes on a single server, enabling:

- Reduced time managing small mailboxes
- Faster response times
- Greater capacity for archiving, data protection and enterprise search
- Non-disruptive scalability with high-capacity internal storage
- High availability and greater uptime with combined server/storage components
- Improved availability and responsiveness with agent-free, automated and embedded systems management that can monitor performance of the most critical components as well as overall system performance.

### Ideal for single server or clustered Exchange environments

For Exchange environments that utilize local storage, the PowerEdge R730xd delivers massive internal storage capacity in just 2U of rack space. Combined with Dell Storage MD1400 DAS storage arrays, the R730xd can offer even more mailbox capacity to deliver the most economical solution for Exchange deployments.

R730xd



### Ideal for shared storage environments

Blade servers like the PowerEdge M630 and rack-optimized 1U R630 or 2U R730 provide the performance, memory density, flexible I/O and networking options that shared-storage Exchange environments demand. When combined with Dell Storage Fibre Channel or iSCSI SAN arrays, they can deliver the response times and scalability needed for large scale communications infrastructures.

M1000e  
with M630



R630



R730



### Ideal for remote and small offices

Designed for single-server small and medium-sized businesses, the PowerEdge T630 tower delivers the storage scalability and performance that growing Exchange environments require.

T630



VRTX



For multiple server environments, the compact PowerEdge VRTX integrated solutions platform with up to four M520, M620 or M630 server nodes and extensive internal storage capacity delivers data center capabilities with the ease and automation that remote or branch offices require.

# Unified communications and collaboration

## Dell solutions for Microsoft Lync



### Real-time communications

Instant messaging, presence awareness, audio and video conferencing, mobility support and enterprise voice are unified in Microsoft Lync® so that your users can instantly and intuitively engage others to solve a problem or act on an opportunity. Combined in a comprehensive UC&C solution with Microsoft Exchange and Microsoft SharePoint®, Lync can empower your workers to achieve faster, better outcomes.

### Application requirements

The shift to a more mobile and dispersed workforce using latency-sensitive enterprise voice and video conferencing means that many existing infrastructures may need performance, memory and throughput boosts to avert quality problems for users. The often virtualized Lync environments require high floating point operations for CPU throughput, high bandwidth for memory load transfers and high compute power for adding concurrent users without performance degradation.

### PowerEdge servers for Microsoft Lync

The next-generation PowerEdge servers offer up to 18 cores per processor, higher memory bandwidth and modular network options to provide:

- Increased hardware consolidation and related IT efficiencies
- More concurrent users
- Higher performance and lower latency for a better quality experience in real-time communications
- Network interface options to eliminate unnecessary “forklift” upgrades
- Future-ready scalability to add more users and features such as enterprise voice
- Improved availability and responsiveness with agent-free, automated, embedded systems management that monitors performance of the most critical application components as well as overall system performance.

### Recommended for Lync shared database backend

The PowerEdge R730 is an excellent platform for Lync backend infrastructure roles where high availability is crucial, such as phone and messaging databases. The R730 offers scalable memory density, expanded I/O and the raw performance required to support peak transaction loads.

R730



### Ideal for front end, edge or mediation

PowerEdge 2-socket servers, such as the R730, R630 or the M520 and M630 blades, are well suited for audio and video conferencing because of their large memory capacity and excellent I/O bandwidth. They provide highly scalable features to support peak demand requests and routing to databases.

R730



R630



M1000e with M630 or M520

### Recommended for small or remote offices

Designed for small and medium-sized businesses, as well as data centers, the PowerEdge T630 tower server delivers scalability and performance for A/V conferencing and other Lync roles in a virtualized environment. For large offices or branch offices, PowerEdge VRTX supports 2-socket M620 or M630 front-end, edge or mediation roles as well as 4-socket M820 backend database roles.

T630



VRTX



# Unified communications and collaboration

## Dell solutions for Microsoft SharePoint



### Collaboration, workflows and content management

Microsoft SharePoint provides unparalleled versatility as a framework for content collaboration, intranet portal and internet site creation, document management, business workflows and more. With SharePoint 2013, new social features build communities and deliver content and notifications based on user interest, while the enterprise search function across SharePoint, Lync and Exchange helps find information quickly. Integrated archiving and eDiscovery preserve data in-place across all platforms to help solve growing governance and compliance demands.

### Application requirements

From web serving to managing rapidly expanding data stores, older infrastructures may not be able to deliver the response times, storage capacity and high availability needed to support websites, business processing, content management and data management. SharePoint servers are often virtualized, so scalable memory and flexible I/O options to better support network and especially storage traffic are critical.

### PowerEdge servers for Microsoft SharePoint

Processing power to support more VMs and transactions, memory density and scalability, local storage capacity, tiered storage and networking choices make the next-generation of PowerEdge servers ideal for the wide range of SharePoint uses, delivering:

- Faster response times
- More concurrent users
- Improved throughput for Microsoft SQL Server® backend access
- Flexibility and scalability to support new uses
- Agent-free, automated embedded management that consumes no processor overhead, eliminating negative impact on application performance.

### Recommended for consolidated SharePoint deployments

Dell offers many 2- and 4-socket rack or blade platforms suitable for consolidated enterprise SharePoint deployments, supporting web, application and SQL database servers that make up the multi-tier architecture. In any consolidated SharePoint environment, availability and application performance are key.

R820



R730



R630



M820



M630

### Recommended for the largest SharePoint deployments

If greater virtual scalability or dedicated database servers are needed for the largest deployments, PowerEdge M820 and R920 4-socket servers have the memory expandability and I/O flexibility to run the backend database or consolidate even the most taxing server roles.

M820



R920



# Business processing and decision support

## Dell solutions for database, CRM and ERP



### Business-critical, data-intensive application

Businesses today increasingly rely on highly demanding, performance-hungry applications to deliver the information their customers and stakeholders demand. Business-critical, data-intensive applications such as ERP, CRM, analytics and collaborative decision support demand the highest levels of performance as these systems become core to the company's mission. To run these critical applications, enterprises are looking for an IT infrastructure that can handle growing, variable transaction volumes, can store massive amounts of data on scalable and cost-efficient storage, and can easily add new users while processing more transactions with lower latency.

### Oracle, Microsoft and SAP application requirements

The next generation of PowerEdge servers have been optimized for business computing and decision support applications based on Oracle®, Microsoft SQL Server, SAP® HANA or SAP ASE databases with enhanced in-server flash storage, a larger memory footprint, and greater memory bandwidth to deliver more OLTP or OLAP database transactions in less time for a greater number of concurrent users, with streamlined, more automated management.

### PowerEdge servers for business computing

Analytical and transactional processing power, memory density and scalability and massive local storage capacity including flash storage make the next generation PowerEdge servers ideal for the wide range of database, data warehouse and business processing applications, delivering

- Faster average transaction response times
- More concurrent users with higher number of transactions
- Improved throughput for data analysis applications
- Streamlined systems management
- Built-in reliability and high availability
- Easy scalability as data needs increase
- Improved availability and responsiveness with agent-free, automated systems management that can monitor the performance of the most critical server components, as well as overall system performance.

### Recommended for core data center infrastructure

Dell 4-socket servers represent the cutting-edge of business processing applications to handle your most critical data — from the flagship expandability and reliability of the PowerEdge R920, to the density of the 2U rack-optimized R820 or M820. Achieve additional acceleration of OLAP with SanDisk DAS Cache for local or DAS storage, or OLTP workloads using Fluid Cache for SAN in shared storage environments.

R920



R820



M820



### Ideal for midrange environments

Dell's 2-socket lineup for business processing is nearly as capable as the 4-socket lineup. PowerEdge R730, R630 and M630 deliver performance and memory density well suited for clustered database environments, such as Oracle® Real Application Clusters (Oracle RAC), while the R730xd delivers the large internal storage capacity that makes it the perfect choice for a self-contained database server.

R730



R630



R730xd



M1000e with M630



### Ideal for remote or small offices

With massive shared storage, a large amount of flash and support for M520, M620, M630 and M820 compute nodes, the PowerEdge VRTX converged infrastructure platform, designed for office environments, drives all classes of applications from front-end web tech to backend database.

For single-server deployments, the T630 delivers the performance and capacity needed to drive your business forward.

VRTX



T630





# High-performance computing

## Dell solutions for technical and research computing



### Performance needed for compute-intensive environments

High-performance computing (HPC) is at the cutting edge of industry and academia, and the capabilities of HPC clusters are critical to the success of compute-intensive applications such as scientific research, commercial big data, medical imaging, financial trading, oil and gas exploration or data warehousing.

### Application requirements

Requirements vary for specific workloads: head node servers, which manage the compute nodes in the cluster, require I/O flexibility for external storage options, ability to connect to multiple networks (private, enterprise, and application networks) and HA reliability; compute nodes require high I/O to storage, memory density to support caching and minimize I/O, high performance processors and RAS features. For design applications that involve renderings and modelling, accelerators are critical.

### PowerEdge servers for high-performance computing

Dell PowerEdge servers deliver outstanding performance to compute-intensive HPC environments. With the latest generation of Intel processors, more GPU and internal solid-state storage options and ultra-dense designs, these servers readily support a variety of technical computing workloads, enabling:

- Double the number of floating point operations per cycle
- Faster movement of data in and out of memory
- Faster storage access for reduced latency
- Expanded accelerator options with Intel Xeon Phi™, NVIDIA® Tesla® and AMD® FirePro™
- Agent-free, automated embedded management that consumes no processor overhead, eliminating negative impact on application performance
- Enhanced management for Linux users with the Dell OpenManage Nagios® plug-in.

### Ideal for midrange environments

The 2-socket, 2U R730 or 1U R630 servers are ideal for managing the entire cluster thanks to a very high processor core count, high availability, flexible, low-latency I/O options and robust peripheral support with PCIe expansion slots. These nodes can also be effectively used as login nodes and storage gateways, which can utilize SanDisk DAS Cache for even greater storage performance

R730



R630



### Recommended for compute nodes

For the greatest levels of density, the 1U 2-socket R630 is a great building block for commercial HPC deployments due to its compute density, large memory footprint, RAS features and SSD support.

For the supercomputing centers for which blades are the preferred computational form factor because of the ultra-efficient converged infrastructure, the M630 blade server delivers high memory and flexible I/O combined with power and cooling and management efficiencies.

Another great building block in commercial HPC deployments, the 2U R730 provides a broad support for acceleration technology, expandability with PCI Express® (PCIe) slots, large compute power and memory and very fast storage.

R630



M1000e with M630



R730



# Virtualization and cloud computing

## Dell solutions for infrastructure optimization



### Large scale benefits of virtualization

From a few virtual machines running on a single physical computer to a whole server farm across multiple root servers, virtualization optimizes investments in hardware and network infrastructure by reducing server sprawl. Virtualization helps you realize large-scale benefits such as improved utilization, optimized support resources, reduced floor space and power costs, along with providing a robust infrastructure that can deliver greater availability and resiliency.

### Application requirements

Workloads such as desktop virtualization or private cloud rely on efficient and high-performance IT infrastructures. In VDI deployments, consolidation, density and performance are critical. Virtualization platforms must deliver performance with high core counts, substantial memory density, and flexible I/O to be able to assign appropriate levels of system resources to VMs.

### PowerEdge servers for virtualized environments

Dell PowerEdge servers deliver outstanding performance to virtualized environments with up to 18 processing cores per socket, high memory densities and flexible I/O, enabling:

- Non-disruptive scalability
- Better support for graphics-intensive applications in VDI
- More VMs per server
- Flexible allocation of resources among VMs with switch independent partitioning technology
- Full support and compatibility with the virtual storage solutions such as VMware® Virtual SAN™ and Microsoft Storage Spaces.
- Maximized application uptime with automatic failover of redundant hypervisors and failsafe memory fault isolation
- Streamlined management and control with Dell OpenManage Integration Suite for Microsoft System Center and Dell OpenManage Integration for VMware vCenter™ virtualization consoles.

### Recommended for virtual and private cloud data centers

For large scale virtualization that demands the highest performance and density of VMs per computation node, the 4-socket PowerEdge R920 is the best choice. Ideal for random I/O workloads, the R920 delivers unmatched I/O performance and throughput for mission-critical applications.

R920



For space-constrained environments, the ultra-dense 1U, 2-socket R630 can deliver high memory and extreme I/O performance with all-flash configurations in half the space of comparable servers.

R630



The M1000e blade server solution is available for enterprises looking for converged infrastructure efficiency and power and cooling costs savings.

M1000e with M630 or M520



Achieve additional acceleration for VDI workloads with Fluid Cache for SAN in shared storage environments.

### Recommended for virtual desktop environments

With up to 1.5TB of memory and I/O optimized for virtual desktop infrastructure, the R730 server delivers optimal VDI scalability. Expanded GPU options support graphics-intensive VDI implementations, such as CAD/CAM for better performance. When populated with the M620 or M630 blade nodes, PowerEdge VRTX becomes a versatile and powerful platform for remote or branch office VDI.

R730



VRTX



### Recommended for virtual software-defined storage

Compatible with software-defined storage solutions, such as Microsoft Storage Spaces, VMware Virtual SAN or OpenStack™ Ceph, this server is a great virtualized storage platform. When combined with Dell Storage MD1400 Series DAS storage arrays, it can create an even larger pool of cost-efficient virtualized storage.

R730xd



# PowerEdge rack and tower servers



## PowerEdge rack servers

Performance, availability and density with rack-optimized designs for mid-sized and larger businesses



A complete portfolio of 1-, 2- and 4-socket rack servers designed to reduce complexity in building and managing a data center. PowerEdge rack servers deliver excellent performance and functionality, and outstanding reliability while ensuring superior customer value.

## PowerEdge tower servers






Excellent performance, extensive capacity for growth and simplified management



A portfolio of 1- and 2-socket tower servers that delivers powerful performance, extensive expandability and reliability, helping users to drive business success.

# PowerEdge rack servers







Platform	Description	Processor(s)	Memory	PCI slots	Embedded NICs	Hard drives
<b>R920</b> 	Compute-intensive 4U, 4-socket rack server with highly scalable memory and impressive I/O capabilities — designed for mission-critical enterprise applications.	Intel Xeon processor E7-4800 v2, E7-8800 v2 or E7-2800 v2 product family; up to 15 cores per socket	Up to 96 DIMMs Up to 1600MT/s	10 PCIe 3.0	4 x 1GbE 2 x 10GbE	Up to 24 x 2.5" HDDs or 16 HDDs Up to 8 Express Flash NVMe PCIe SSDs
<b>R820</b> 	High-performance, 2U, 4-socket rack server designed for dense virtualization and scalable database applications.	Intel Xeon processor E5-4600 v2 product family; up to 8 cores per socket	Up to 48 DIMMs Up to 1866MT/s	7 PCIe 3.0	4 x 1GbE 2 x 10GbE	Up to 16 x 2.5" HDD or SSD drives
<b>R730xd</b> 	A performance 2U, 2-socket rack server that offers highly dense, flexible storage options — including in-box tiering and a massive internal storage capacity designed for future scale out.	Intel Xeon processor E5-2600 v3 product family; up to 18 cores per socket	Up to 24 DDR4 DIMMs Up to 2133MT/s	6 PCIe 3.0	4 x 1GbE 2 x 10GbE	18 x 1.8" + 8 x 3.5" + 2 x 2.5" (back) 24 x 2.5" HDD + 2 x 2.5" (rear) or 24 x 2.5" HDD 12 x 3.5" HDD + 4 x 3.5" (internal) + 2 x 2.5" (back) 12 x 3.5" HDD + 2 x 2.5" (rear) 12 x 3.5" HDD Up to 4 NVMe Express Flash PCIe SSDs
<b>R730</b> 	A performance 2U, 2-socket rack server delivers tremendous functional flexibility with a combination of compute power, large memory and very fast storage.	Intel Xeon processor E5-2600 v3 product family; up to 18 cores per socket	Up to 24 DDR4 DIMMs Up to 2133MT/s	7 PCIe 3.0	4 x 1GbE 2 x 10GbE	Up to 16 x 2.5" HDDs or up to 8 x 3.5" HDDs Up to 2 optional GPU accelerators
<b>R630</b> 	A performance 1U, 2-socket rack server that delivers incredible density across a range of resources enabling highly flexible data center scaling.	Intel Xeon processor E5-2600 v3 product family; up to 18 cores per socket	Up to 768GB Up to 1600MT/s	3 PCIe 3.0	4 x 1GbE 2 x 10GbE	Up to 24 x 1.8" HDDs or 10 x 2.5" HDDs or 8 x 2.5" HDDs Up to 4 NVMe Express Flash PCIe SSDs








# PowerEdge rack servers



Platform	Description	Processor(s)	Memory	PCI slots	Embedded NICs	Hard drives
<b>R520</b> 	Powerful 2U, 2-socket rack server designed for core medium business databases and applications, and for consolidation and virtualization.	Intel Xeon processor E5-2600 v2 product family; up to 8 cores per socket	Up to 12 DDR3 DIMMs Up to 1600MT/s	4 PCIe 3.0-enabled	1 dual-port 1GbE NIC	Up to 24 x 2.5" HDDs or 16 HDDs Up to 8 Express Flash NVMe PCIe SSDs
<b>R420</b> 	1U, 2-socket rack server delivers performance, density and internal expandability for customized workloads.	Intel Xeon processor E5-2400 v2 product family; up to 8 cores per socket	Up to 12 DDR3 DIMMs Up to 1600MT/s	2 PCIe 3.0-enabled	1 x 1GbE or 10GbE NIC	Up to 16 x 2.5" HDD or SSD drives
<b>R320</b> 	1U, 1-socket rack server with balanced compute power, scalability and cost in a compact chassis.	Intel Xeon processor E5-2400 v2 or E5-1410 product family; up to 8 cores per socket	Up to 6 DDR3 DIMMs Up to 1600MT/s	1 PCIe 2.0 and 1 PCIe 3.0-enabled	1 x 1GbE or 10GbE NIC	Up to 24 x 2.5" HDD + 2 x 2.5" (back) or 16 x 3.5" HDD + 2 x 2.5" (back) or 12 x 3.5" or 18 x 1.8" + 8 x 3.5" Up to 4 NVMe Express Flash PCIe SSDs
<b>R220</b> 	1U, 1-socket rack server delivers performance, data storage and protection in a short-depth chassis optimized for constrained spaces.	Intel Xeon processor E3-1200 v3 product family; up to 4 cores per socket; Intel Pentium®, Intel Celeron®	Up to DDR3 DIMMs Up to 1600MT/s	2 x 1GbE	2 x 1GbE LOM	Up to 16 x 2.5" HDDs or up to 8 x 3.5" HDDs Up to 2 optional GPU accelerators

# PowerEdge tower servers



Platform	Description	Processor(s)	Memory	PCI slots	Embedded NICs	Hard drives
<b>T630</b> 	A 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 v3 or E5-1600 v3 product family; up to 18 cores per socket; up to 4 GPU accelerators	Up to 24 DDR4 DIMMs Up to 1600MT/s	6 PCIe 3.0 1 PCIe 2.0	4 x 1GbE 2 x 10GbE	Up to 32 x 2.5" or 18 x 3.5" HDDs Up to 4 optional PowerEdge Express Flash PCIe SSDs
<b>T420</b> 	Rackable 2-socket tower server delivers performance, expandability, and reliability with a room to grow in a quiet office setting.	Intel Xeon processor E5-2400 v2 product family; up to 8 cores per socket	Up to 12 DDR3 DIMMs Up to 1600MT/s	4 PCIe 3.0 2 PCIe 2.0	1 dual-port embedded 1GbE NIC	Up to 4 x 3.5" SAS or SATA drives or up to 8 hot-plug 2.5" or 3.5" drives or up to 16 hot-plug 2.5" SAS, SATA, SSDs
<b>T320</b> 	Rackable 1-socket tower server delivers performance, capacity and reliability for small businesses and organizations.	Intel Xeon processor E5-2400 v2 product family; up to 8 cores per socket; Intel Pentium processor 1410	Up to 6 DDR3 DIMMs Up to 1600MT/s	3 PCIe 3.0 2 PCIe 2.0	1 dual-port embedded 1GbE NIC	Up to 4 cabled 3.5" SAS or SATA drives or up to 8 hot-plug 3.5"/2.5" or up to 16 hot-plug 2.5" SAS, SATA, or SSD drives
<b>T110 II</b> 	Rackable 1-socket tower server ideal as first server for small businesses.	Intel Xeon processor E3-1200 v2 product family, Intel Pentium, Intel Celeron	Up to 4 DDR3 DIMMs Up to 1600MT/s	4 PCIe 2.0	1 single-port 1GbE NIC	Up to 6 cabled 2.5" SATA SSD or SAS drives or up to 4 cabled 3.5" SAS or SATA drives
<b>T20</b> 	1-socket mini tower server packs large internal storage capacity and performance to deliver efficient and worry-free operation in a small or home office.	Intel Xeon processor E3-1225 v3 product family; up to 4 cores per socket, Intel Pentium G3220; Intel Celeron	Up to 4 DDR3 DIMMs Up to 1600MT/s	1 PCIe 3.0 2 PCIe 2.0 1 PCIe 2.0 1 PCI slot	1 dual-port embedded 10/100/1000 NIC	Up to 4 x 3.5" SATA drives and up to 2 x 2.5" SATA drives

# PowerEdge converged infrastructure



## PowerEdge M series

Dense modular IT with central management



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

## PowerEdge VRTX

Integrated solutions platform for remote and branch offices



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

## 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 PowerEdge C series is optimized for distributed workloads, ultra-dense scaled-out environments and cloud deployments.

# PowerEdge M1000e blade chassis



Chassis	Description	Power supplies	Cooling fans	I/O modules	Management modules
<b>M1000e</b> 	A 10U fully modular blade enclosure for up to 8 full-height, 16 half-height or 32 quarter height 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, Cisco®, Brocade® and Mellanox®	1 standard or 2 redundant Chassis Management Controllers (CMCs); optional integrated KVM switch for "crash cart" management


## PowerEdge blade servers

Platform	Description	Processor(s)	Memory	PCI slots	Embedded NICs	Hard drives
<b>M820</b> 	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 processor E5-4600 v2 product family; up to 12 cores per socket	Up to 48 DDR3 DIMMs Up to 1866MT/s	4 PCIe 3.0	2 x quad-port modular 10GbE NIC	Up to 4 hot-plug 2.5" SAS, SSD or 4 PCIe Express Flash SSDs
<b>M630</b> 	Half-height 2S blade server designed for maximum performance, high density and power efficiency. Up to 16 in an M1000e chassis	Intel Xeon processor E5-2600 v3 product family up to 18 cores per socket	Up to 24 DDR4 DIMMs Up to 2133MT/s	2 PCIe 3.0 mezzanine I/O expansion slots	1 x quad-port modular 10GbE NIC	Up to 2 hot-plug 2.5" SAS, SATA, SSD drives or up to 4 x 1.8" SSD drives
<b>M520</b> 	Half-height 2S blade server delivers balance of value and performance for mainstream business applications. Up to 16 in an M1000e.	Intel Xeon processor E5-2400 v2 product family; up to 10 cores per socket	Up to 12 DDR3 DIMMs Up to 1600MT/s	2 PCIe 3.0 mezzanine card slots	1 x quad-port modular 1GbE NIC	Up to 2 hot-plug 2.5" SAS, SATA or SSD drives
<b>M420</b> 	Quarter-height 2S blade server delivers unprecedented computational density with enterprise-class features. Up to 32 in an M1000e	Intel Xeon processor E5-2400 v2 product family; up to 10 cores per socket	Up to 6 DDR3 DIMMs Up to 1600MT/s	1 PCIe 3.0 mezzanine card slot	1 x dual-port modular 10GbE NIC	Up to two hot-plug 1.8" SSDs







# PowerEdge VRTX



Platform	Description	Server nodes	Memory	PCIe slots	Embedded NICs	Supported drives
<p data-bbox="197 354 260 375">VRTX</p> 	<p data-bbox="359 451 779 589">Tower or 5U rackable platform that integrates up to 4 server nodes, storage, networking and management into a compact chassis optimized for office environments.</p>	<p data-bbox="808 347 1024 427">Up to 4 x 2S, half-height M520 server nodes</p> <p data-bbox="808 444 1052 524">Up to 4 x 2S, half-height M620 or M630 server nodes</p> <p data-bbox="808 542 1024 621">Up to 2 x 4S, full-height M820 server nodes</p> <p data-bbox="808 639 1033 695">Or a combination of server nodes</p>	<p data-bbox="1071 464 1257 544">Dependent upon chosen server nodes</p>	<p data-bbox="1287 464 1425 544">3 full-height and 5 half-length</p>	<p data-bbox="1459 375 1633 662">1GbE internal switch module (standard) with 16 x 1GbE ports and 8 external ports Ethernet pass-through module with 8 external ports (optional)</p>	<p data-bbox="1684 464 1948 576">Up to 12 x hot-plug 3.5" SAS or SSD drives or up to 25 hot-plug 2.5" SAS or SSD drives</p>





# PowerEdge C series



Platform	Description	Processor(s)	Memory	PCIe slots	Embedded NICs	Supported drives
<b>C6220 II</b> 	Hyperscale-inspired 2U rack-mount shared infrastructure with up to 4 high-performance 2-socket server nodes for demanding scale-out and cloud workloads.	Intel Xeon processor E5-2600 v2 product family; up to 12 cores per socket	Up to 16 DDR3 DIMMs Up to 1866MT/s	1U-node version: <ul style="list-style-type: none"> <li>1 PCIe 3.0 x8</li> <li>1 PCIe 3.0 x16</li> </ul> 2U-node version: <ul style="list-style-type: none"> <li>1 PCIe 3.0 x8</li> <li>2 PCIe 3.0 x16</li> </ul>	1 embedded dual-port 1GbE 1GbE, 10GbE or Mellanox InfiniBand® options available	24 x 2.5" or 12 x 3.5" hot-plug hard drives
<b>C6105</b> 	Hyperscale-inspired 2U rack-mount shared infrastructure with up to 4 two-socket server nodes built to maximize performance-per-watt.	AMD® Opteron™ 4200/4300 series; up to 8 cores per socket	Up to 12 DDR3 DIMMs Up to 1333MT/s	1 PCIe 2.0 x8 3 PCIe 2.0 x16	1 embedded dual-port 1GbE 1GbE, 10GbE or InfiniBand options available	24 x 2.5" or 12 x 3.5" hot-plug hard drives
<b>C6145</b> 	Hyperscale-inspired 2U rack-mount shared infrastructure with up to 2 ultra-efficient 4-socket server nodes for exceptional performance-per-U.	AMD Opteron 6200 series; up to 16 cores per socket	Up to 32 DDR3 DIMMs Up to 1600MT/s	1 PCIe 2.0 x8 3 PCIe 2.0 x16 1 PCIe x16 host interface card	1 embedded dual-port 1GbE -1GbE, 10GbE or InfiniBand options available	24 x 2.5" or 12 x 3.5" hot-plug hard drives
<b>C410x</b> 	External 3U PCIe expansion chassis enables 1 to 8 servers to connect up to 16 PCIe devices to maximize density, energy and cost-efficiency.	N/A	N/A	16 PCIe 2.0 x16	N/A	N/A

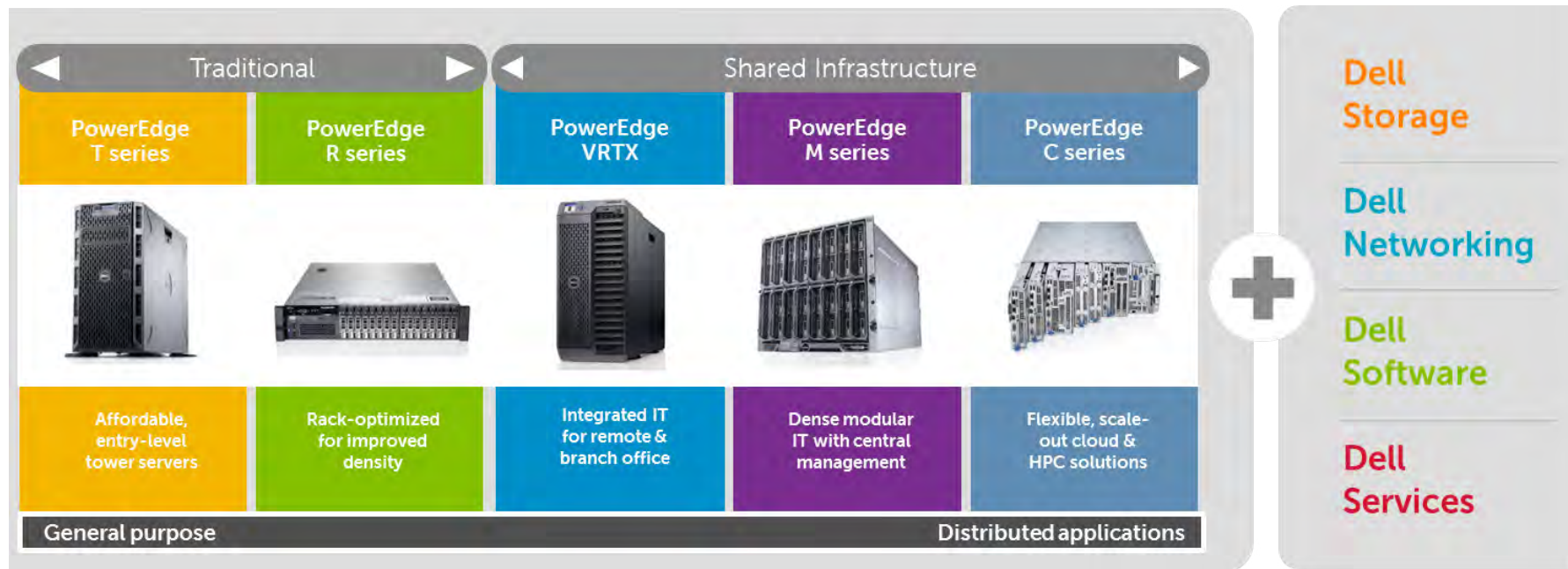
# PowerEdge C series



Platform	Description	Processor(s)	Memory	PCIe slots	Embedded NICs	Supported drives
<b>C8000 chassis</b> 	Ultra-dense 4U chassis for up to 8 single-wide or 4 double-wide compute, GPU or storage sleds (C8220, C8220X, C8000XD) for ultra-dense scale-out environments.	N/A	N/A	N/A	N/A	N/A
<b>C8220</b> 	Double-wide, hot-swap 2-socket compute/GPU sled for the C8000 chassis.	Intel Xeon processor E5-2600 v2 product family; up to 12 cores per socket	Up to 16 DDR3 DIMMs Up to 1866MT/s	Compute version: 3 PCIe 3.0 x8 GPU version: 2 PCIe 3.0 x16	1 embedded dual-port 1GbE	Compute version: <ul style="list-style-type: none"> <li>Up to 2 x 2.5" hot-plug SATA + 8 x 2.5" non-hot-plug SATA/SAS or,</li> <li>Up to 2 x 2.5" hot-plug SATA + 4 x 3.5" non-hot-plug SATA/SAS</li> </ul> GPU version: <ul style="list-style-type: none"> <li>Up to 2 x 2.5" non-hot-plug SATA/SAS</li> </ul>
<b>C8220X</b> 	A 2-socket double-wide, hot-swap sled with compute, GPU and storage options. Up to 4 x C8220Xs per C8000 chassis.	Intel Xeon processor E5-2600 product family; up to 12 cores per socket	Up to 16 DDR3 DIMMs Up to 1600MT/s	1 PCIe 2.0 x8 3 PCIe 2.0 x16 1 PCIe x16 host interface card	2x 1GbE with Intel I350	2 x 2.5" hot-plug hard drives + 8 x 2.5" or 4 x 3.5" non-hot-plug hard drives
<b>C8000XD</b> 	Double-wide, hot-swap storage sled for the C8000 chassis.	N/A	N/A	16 PCIe 2.0 x16	N/A	Up to 12 x 3.5" or 12 x 2.5" hot-plug SATA/SAS or, Up to 24 x 2.5" non-hot-plug SATA/SAS

# Dell's comprehensive enterprise solutions portfolio

## Workload-optimized solutions for any size enterprise



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

- Intelligent, self-optimized and auto-tiered SAN, NAS and DAS storage solutions
- Comprehensive suite of networking products for campus LANs, data centers and wireless networks
- Enterprise software for data center and cloud management, data protection, information management, mobile workforce management and security
- Professional services that simplify assessment, design, implementation, management and maintenance.

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