What's New with Dell PowerEdge 12th Generation Servers?

The latest Dell™ PowerEdge™ servers are a direct response to the needs of today's data centers. After listening closely to customers, Dell produced a family of servers and systems management tools that help address the key challenges that IT organizations face around the world. Think of them as servers designed by you, and engineered by Dell.

Dell PowerEdge servers help you accomplish more by improving system performance, increasing throughput capacity, and turning data into insights faster. The Dell PowerEdge 12th generation server portfolio can span effectively from the edge of your network to the core of your datacenter, and address a myriad of needs from the smallest business to even the largest of organizations. PowerEdge platforms are designed in order to maximize available memory capacity as a priority, because memory is a crucial component in getting more performance from a system. More memory means faster processing and more effective virtualization environments. Integrated, comprehnsive and easy-to-use management tools enhance IT capabilities to deploy, update, monitor and maintain these systems throughout their lifecycle.

I/O optimization

To further optimize overall system performance, Dell has increased the I/O capacity on PowerEdge servers to provide greater flexibility and to address bottlenecks in connectivity. More expansion slots open up the possibilities for faster data access. Dell's new Select Network Adapter family—a collection of modular network interface daughter cards available on our core performance systems—even lets you choose the right integrated network without using up a valuable, additional PCI slot. You can pick between multiple speeds, vendors and technology options—such as switch independent partitioning, which allows you to share and manage bandwidth on 10GbE connections—and even upgrade your integrated network adapter later as your needs evolve.

Greater performance

Powering Dell's newest PowerEdge servers are the latest Intel® Xeon® processor E5-4600, E5-2600, and E5-2400 families. Designed to deliver the best combination of performance, built-in capabilities and cost-effectiveness, they power a wide range of flexible and dynamic platforms built to address any workload, from simple edge-of-network infrastructure to virtualization and cloud computing, to design automation or real-time financial transactions.

Easy, complete systems management

Dell has streamlined and automated the most common system administrator tasks by embedding second generation systems management technology, Integrated Dell Remote Access Controller 7 (iDRAC7) with Lifecycle Controller, into the latest generation of PowerEdge servers. The Dell OpenManage™ systems management portfolio of tools simplifies managing the server lifecycle of deployment, updates, monitoring, and maintenance. Using OpenManage solutions, IT administrators can manage Dell servers in physical, virtual, local and remote environments, operating in-band or out-of-band, with or without a systems management software agent.

No compromise virtualization

Virtualization is one of the key design tenets for Dell PowerEdge 12th generation servers. With powerful processors, large memory footprints, high I/O bandwidth and flexible networking options, PowerEdge servers are a great solution for organizations looking to consolidate the inevitable server sprawl that results from explosive growth, or wanting to centralize their operations with a virtual desktop infrastructure (VDI) solution, or just wanting to run more applications virtualized on a single server hardware platform. With PowerEdge servers, choose from industry-leading hypervisors and take advantage of the integration of Dell's Virtual Integrated System (VIS) solution to enable complex virtualization environments in just a few mouse clicks, managing both physical and virtual assets.

Optimized energy management

The latest PowerEdge servers also offer greater efficiency in terms of power and energy with many platforms offering class-leading or industry-leading performance per watt—every component is optimized for the most efficient operation. Dell servers are engineered for minimum power consumption and optimized to run at higher operating temperatures.

Ensuring reliability

Dell is committed to provide secure, continual access to the IT services that power your business. With reliability, availability and serviceability (RAS) features like hot-pluggable fans, disks and power supply units, even redundant failsafe hypervisors for the virtualization environment, Dell PowerEdge servers keep your data center running with rock-steady reliability.

In addition, PowerEdge servers implement a number of security features to protect your servers and data from accidental loss or malicious intrusions. You can authenticate the integrity of updates using digitally signed firmware, safeguard access to passwords and certificates with iDRAC Credential Vault and protect access to data at rest with automatic encryption and self-encrypting disks.

Transitioning to the new PowerEdge server line

This guide describes what you need to know about the new features of Dell PowerEdge 12th generation servers and the major differences between previous generations of servers to help you successfully transition to the latest technology. The following table provides a list of end-of-life PowerEdge systems and replacement systems.

End-of-life systems[1]	
PowerEdge M610	PowerEdge T710
PowerEdge M710	PowerEdge R810
PowerEdge M710HD	PowerEdge R310
PowerEdge R610	PowerEdge R410
PowerEdge R710	PowerEdge R510
PowerEdge M610	PowerEdge T310
PowerEdge T610	PowerEdge T410

[1]End-of-life systems will be discontinued beginning September 2012.

Replacement systems	Release date
PowerEdge M620 PowerEdge R620 PowerEdge R720 PowerEdge R720xd PowerEdge T620	March 2012
PowerEdge R820 PowerEdge M420 PowerEdge M520 PowerEdge R320 PowerEdge R420 PowerEdge R520	May 2012
PowerEdge M820 PowerEdge T320 PowerEdge T420	June 2012

Important transition information

New features of Dell PowerEdge 12th generation servers include:

- New Intel Xeon processor E5-4600 product family (4-socket, Sandy Bridge EP), E5-2600 product family (2-socket, Sandy Bridge EN), E5-2400 product family (1- or 2-socket, Sandy Bridge EN), Xeon E5-1410 Processor and Pentium 1400 product family (1-socket only)
- Enhanced memory scalability with load reduced DDR3 DIMM (LRDIMM) technology
- Support for PCI Express® (PCIe) 3.0
- PCIe x16 support for graphics processing unit (GPU) on R620, R720, T320, T420, and T620 for VDI or high performance computing (HPC) implementations
- Agent-free management with new iDRAC7 with Lifecycle Controller
- Digital license keys and 30-day trial evaluations available after point-of-sale for iDRAC7 with Lifecycle Controller Express or Enterprise (series 300-900)
- Dell Repository Manager for creating deployment disks and customized repositories
- Next-generation RAID controllers with improved performance, non-volatile cache, and optional CacheCade™ capability
- Integration of Intel Node Manager power management infrastructure
- Dell's failsafe virtualization redundant hypervisor infrastructure
- PowerEdge Select Network Adapter infrastructure

- Switch independent partitioning technology
- Dell Express Flash PCIe solid-state drives (SSD)
- Updated rail kits and cable management arms
- Improved energy efficiency

Previous-generation features that are **not supported** on the new systems include:

- iDRAC6
- Previous generation of Intel processors
- Previous generation of hard-drive carriers (blades)
- Previous generation of rail kits and cable management arms
- Previous generation of software images
- Previous generation of RAID controllers

The following sections compare the features of similar current- and previous-generation PowerEdge servers.

PowerEdge rack servers

Designed for exceptional performance on a wide range of applications, the new series of PowerEdge rack servers feature an increased memory footprint, the latest Intel Xeon processor E5 product families, powerful I/O, and expanded internal storage capabilities.

PowerEdge R820

Feature	PowerEdge R810	PowerEdge R820
Chassis	2U rack	2U rack
Processors	Intel Xeon processors 6500, 7500, E7-2800, E7-4800 and E7-8800 series	Intel Xeon processor E5-4600 product family
Internal interconnect	Intel QuickPath Interconnect	Intel QuickPath Interconnect
Memory	32 x DDR3 RDIMM and UDIMM	48 x DDR3 RDIMM, UDIMM, and LRDIMM
Hard drive bays	6 x 2.5" hot-plug	16 x 2.5" hot-plug
RAID controller	PERC H200, H700, H800	PERC H310, H710, H710P, H810 Dual PERC option
Express Flash PCIe SSD	Not supported	Up to 4
PCI slots	7 PCIe 2.0	7 PCIe 3.0
Embedded NIC	4 x 1GbE with optional TOE	Select Network Adapter minimum configuration: 4 x 1GbE optional: 2 x 10GbE
Power supplies	Hot-plug, redundant 1100W AC	Hot-plug, redundant, common power supply unit: 750W AC, 1100W AC, 1100W DC

Feature	PowerEdge R810	PowerEdge R820
Dell OpenManage Systems Management	Dell OpenManage Dell Management Console (DMC) Lifecycle Controller 1.x iDRAC6 (Express or Enterprise) with Lifecycle Controller 1.x	OpenManage Essentials Dell Management Console IT Assistant OMSA Agent OpenManage Power Center (requires iDRAC7 Enterprise with Lifecycle Controller) OpenManage Integrations and Connections iDRAC7 Express with Lifecycle Controller (standard option)
Internal GPU support	No	2 x 75W actively cooled GPUs
Power efficiency	Gold	Platinum
High Availability (HA)	Hot-plug drives Redundant cooling Hot-plug redundant PSUs	Hot-plug drives Hot-plug redundant cooling Hot-plug redundant PSUs Internal dual SD module

PowerEdge R720/R720xd

Feature	PowerEdge R710	PowerEdge R720	PowerEdge R720xd
Chassis	2U rack	2U rack	2U rack
Processors	Intel Xeon processors 5500 and 5600 series	Intel Xeon processor E5-2600 product family	Intel Xeon processor E5-2600 product family
Internal interconnect	Intel QuickPath Interconnect	Intel QuickPath Interconnect	Intel QuickPath Interconnect
Memory	18 x DDR3 RDIMM and UDIMM	24 x DDR3 RDIMM, UDIMM, and Load Reduced DDR3 DIMM (LRDIMM)	24 x DDR3 RDIMM, UDIMM, and LRDIMM
Hard drive bays	8 x 2.5", hot-plug or 6 x 3.5" hot-plug	16 x 2.5" hot-plug or 8 x 3.5" hot-plug	24 x 2.5" hot-plug + 2 x 2.5" back-access hot-plug or 12 x 3.5" hot-plug+ 2 x 3.5" back-access hot-plug
RAID controller	PERC 6/i, SAS 6/iR, PERC 6/E, H200, H700, H800	PERC S110, H310, H710, H710P, H810 (external); supports multiple (2) internal RAID controllers	PERC H310, H710, H710P, H810 (external); supports 1 internal RAID controller
Express Flash PCIe SSD	Not supported	Up to 4	Not supported
PCI slots	4 PCIe 2.0	7 PCIe 3.0	6 PCIe 3.0
Embedded NIC	4 x 1GbE with optional TOE	Select Network Adapter minimum configuration: 4 x 1GbE optional: 2 x 10GbE	Select Network Adapter minimum configuration: 4 x 1GbE optional: 2 x 10GbE
Power supplies	Hot-plug, redundant: 570W, 870W	Hot-plug, redundant, common power supply unit: 495W, 750W, 1100W, 1100W DC	Hot-plug, redundant, common power supply unit: 495W, 750W, 1100W, 1100W DC

Feature	PowerEdge R710	PowerEdge R720	PowerEdge R720xd
Dell OpenManage Systems Management	Dell OpenManage Dell Management Console (DMC) Lifecycle Controller 1.x iDRAC6 (Express or Enterprise) with Lifecycle Controller 1.x	OpenManage Essentials Dell Management Console IT Assistant OMSA Agent OpenManage Power Center (requires iDRAC7 Enterprise with Lifecycle Controller) OpenManage Integrations and Connections iDRAC7 Express with Lifecycle Controller (standard option)	OpenManage Essentials Dell Management Console IT Assistant OMSA Agent OpenManage Power Center (requires iDRAC7 Enterprise with Lifecycle Controller) OpenManage Integrations and Connections iDRAC7 Express with Lifecycle Controller (standard option)
Internal GPU support	No	2 x 300W or 4 x 150W	No
Power efficiency	Gold	Platinum	Platinum
High availability (HA)	Hot-plug drives Redundant cooling Hot-plug redundant PSUs	Hot-plug drives Hot-plug redundant cooling Hot-plug redundant PSUs Internal dual SD module	Hot-plug drives Hot-plug redundant cooling Hot-plug redundant PSUs Internal dual SD module

PowerEdge R620

Feature	PowerEdge R610	PowerEdge R620
Chassis	1U rack	1U rack
Processors	Intel Xeon processors 5500 and 5600 series	Intel Xeon processor E5-2600 product family
Internal interconnect	Intel QuickPath Interconnect	Intel QuickPath Interconnect
Memory	12 x DDR3 RDIMM and UDIMM	24 x DDR3 RDIMM, UDIMM, and LRDIMM
Hard drive bays	6 x 2.5" hot-plug	10 x 2.5" hot-plug
RAID controller	PERC 6/i, SAS 6/iR, PERC 6/E, H200, H700, H800	PERC S110, H310, H710, H710P, H810
Express Flash PCIe SSD	Not supported	Up to 2
PCI slots	2 + 1 PCIe 2.0	3 PCIe 3.0
Embedded NIC	4 x 1GbE with optional TOE	minimum configuration: 4 x 1GbE optional: 2 x 10GbE
Power supplies	Hot-plug, redundant: 502W, 717W	Hot-plug, redundant, common power supply unit: 495W, 750W, 1100W, 1100W DC

Feature	PowerEdge R610	PowerEdge R620
Dell OpenManage Systems Management	Dell OpenManage Dell Management Console (DMC) Lifecycle Controller 1.x iDRAC6 (Express or Enterprise) with Lifecycle Controller 1.x	OpenManage Essentials Dell Management Console IT Assistant OMSA Agent OpenManage Power Center (requires iDRAC7 Enterprise with Lifecycle Controller) OpenManage Integrations and Connections iDRAC7 Express with Lifecycle Controller (standard option)
Internal GPU support	No	1 x 75W
Power efficiency	Gold	Platinum
High Availability (HA)	Hot-plug drives Redundant cooling Hot-plug redundant PSUs	Hot-plug drives Hot-plug redundant cooling Hot-plug redundant PSUs Internal dual SD module

PowerEdge R520

Feature	PowerEdge R510	PowerEdge R520
Chassis	2U rack	2U rack
Processors	Intel Xeon processors 5500 and 5600 series	Intel Xeon processor E5-2400 product family
Internal interconnect	Intel QuickPath Interconnect	Intel QuickPath Interconnect
Memory	8 x DDR3 RDIMM and UDIMM	12 x DDR3 RDIMM and UDIMM
Hard drive bays	12 x 3.5" or 2.5" hot-plug	8 x 3.5" or 2.5" hot-plug
RAID controller	PERC 6/i, SAS 6/iR, S100, S300, H200, H700, H800	S110, H310, H710, H710P, H810
PCI slots	3 PCIe 2.0	4 PCIe 3.0
Embedded NIC	1 x 1GbE Dual Port LOM	1 x 1GbE Dual Port LOM
Power supplies	Non-redundant 480W AC Redundant and non-redundant hot-plug 750W AC	Non-redundant 550W AC Hot-plug, redundant 495W AC, 750W AC, 1100W AC, 1100W DC
Dell OpenManage Systems Management	Dell OpenManage Dell Management Console (DMC) Lifecycle Controller 1.x iDRAC6 (Express or Enterprise) with Lifecycle Controller 1.x	OpenManage Essentials Dell Management Console IT Assistant OMSA Agent OpenManage Power Center (requires iDRAC7 Enterprise with Lifecycle Controller) OpenManage Integrations and Connections Basic management (standard option)
Internal GPU support	No	No
Power efficiency	Gold	Platinum

Feature	PowerEdge R510	PowerEdge R520
High Availability (HA)	Hot-plug drives Hot-plug redundant cooling Hot-plug, redundant PSUs	Hot-plug drives Fan fault tolerance Hot-plug redundant PSUs Internal dual SD module

PowerEdge R420

Feature	PowerEdge R410	PowerEdge R420
Chassis	1U rack	1U rack
Processors	Intel Xeon processors 5500 and 5600 series	Intel Xeon processor E5-2400 product family
Internal interconnect	Intel QuickPath Interconnect	Intel QuickPath Interconnect
Memory	8 x DDR3 RDIMM and UDIMM	12 x DDR3 RDIMM and UDIMM
Hard drive bays	4 x 2.5" or 3.5" hot-plug	4 x 3.5" cabled or hot-plug 8 x 2.5" hot-plug
RAID controller	SAS 6/iR, PERC 6/i, 6/E, H200, H700, H800, S100, S300	PERC H310, H710, H710P, H810, S110
PCI slots	1 PCIe 2.0 + 1 storage slot	2 PCIe 3.0
Embedded NIC	1 x 1GbE Dual Port LOM	1 x 1GbE Dual Port LOM
Power supplies	Non-redundant 480W Redundant 500W	Non-redundant 550W Hot-plug, redundant 350W, 550W
Dell OpenManage Systems Management	Dell OpenManage Dell Management Console (DMC) Lifecycle Controller 1.x iDRAC6 (Express or Enterprise) with Lifecycle Controller 1.x	OpenManage Essentials Dell Management Console IT Assistant OMSA Agent OpenManage Power Center (requires iDRAC7 Enterprise with Lifecycle Controller) OpenManage Integrations and Connections Basic management (standard option)
Internal GPU support	No	No
Power efficiency	Gold	Platinum
High Availability (HA)	Hot-plug drives Hot-plug, redundant PSU	Hot-plug drives Hot-plug redundant power supply units Fan fault tolerance Fault resilient memory Internal dual SD module

PowerEdge R320

Feature	PowerEdge R310	PowerEdge R320
Chassis	1U rack	1U rack
Processors	Intel Xeon processors 3400 series Intel Core® i3 processor 500 series Intel Pentium® G6950 Intel Celeron® G1101	Intel Xeon processor E5-2400 product family Intel Xeon processor E5-1400 Intel Pentium processor 1400 product family
Internal interconnect	Intel DMI	Intel DMI 2.0
Memory	4 x DDR3 UDIMM 6 x DDR3 RDIMM	6 x DDR3 RDIMM and UDIMM
Hard drive bays	4 x 3.5" cabled or hot-plug	4 x 3.5" cabled or hot-plug 8 x 2.5" hot-plug
RAID controller	PERC 6/i, 6/E, S100, S300, H200, H700, H800	PERC S110, H310, H710, H810
PCI slots	2 PCIe 2.0	1 PCIe 3.0 and 1 PCIe 2.0
Embedded NIC	1 x 1GbE Dual Port LOM	1 x 1GbE Dual Port LOM
Power supplies	Non-redundant 350W Hot-plug, redundant 400W	Non-redundant 350W Hot-plug, redundant 350W
Dell OpenManage Systems Management	Dell OpenManage Dell Management Console (DMC) Lifecycle Controller 1.x iDRAC6 (Express or Enterprise) with Lifecycle Controller 1.x	OpenManage Essentials Dell Management Console IT Assistant OMSA Agent OpenManage Power Center (requires iDRAC7 Enterprise with Lifecycle Controller) OpenManage Integrations and Connections Basic management (standard option)
Internal GPU support	No	No
Power efficiency	Silver	Platinum
High Availability (HA)	Hot-plug drives Hot-plug redundant PSUs	Hot-plug drives Hot-plug redundant PSUs Memory sparing and memory mirroring Internal dual SD module

Dell continues to offer static rails (for lower-cost deployment) in addition to sliding rails (for in-rack serviceability) for most rack-mount platforms. New slim rail sets introduced with Dell PowerEdge 12th generation servers (1U and 2U) offer improved installation with a new drop-in design, compatibility between more server models, the ability to accommodate multiple chassis depths, and new native support for threaded-hole racks. All of these features combine to deliver a more consistent experience.

PowerEdge tower servers

Driving innovative capabilities throughout the tower product line, the newest PowerEdge tower servers feature enterprise-class high availability features along with increased memory capacity, greater I/O bandwidth and flexibility, expanded internal storage capabilities, redundant failsafe hypervisors, support for optional internal GPUs, and the latest Intel Xeon processors. For installation flexibility, the newest tower servers are also rackable.

PowerEdge T620

Feature	PowerEdge T610	PowerEdge T710	PowerEdge T620
Chassis	Tower or 5U rack	Tower or 5U rack	Tower or 5U rack[1]
Processors	Intel Xeon processors 5500 and 5600 series	Intel Xeon processors 5500 and 5600 series	Intel Xeon processor E5-2600 product family
Internal interconnect	Intel QuickPath Interconnect	Intel QuickPath Interconnect	Intel QuickPath Interconnect
Memory	12 x DDR3 RDIMM and UDIMM	18 x DDR3 RDIMM and UDIMM	24 x DDR3 RDIMM, UDIMM, LRDIMM
Hard drive bays	8 x 2.5" hot-plug or 8 x 3.5" hot-plug	16 x 2.5" hot-plug or 8 x 3.5" hot-plug	32 x 2.5" hot-plug or 12 x 3.5" hot-plug
RAID controller	PERC 6/i, SAS 6/iR, 6/E, H200, H700, H800	PERC 6/i, SAS 6/iR, 6/E, H200, H700, H800	PERC S110, H310, H710, H710P, H810
Express Flash PCIe SSD	Not supported	Not supported	Up to 4
PCI slots	5 + 1 PCIe 2.0	6 + 1 PCIe 2.0	7 PCIe 3.0
Embedded NIC	2 x 1GbE LOM with TOE	4 x 1GbE LOM with TOE	2 x 1GbE Dual Port LOM with TOE
Power supplies	Hot-plug, redundant: 570W, 870W	Hot-plug, redundant: 1100W	Hot-plug, redundant, common power supply unit: 495W, 750W, 1100W
Dell OpenManage Systems Management	Dell OpenManage Dell Management Console (DMC) Lifecycle Controller 1.x iDRAC6 (Express or Enterprise) with Lifecycle Controller 1.x	Dell OpenManage Dell Management Console (DMC) Lifecycle Controller 1.x iDRAC6 (Express or Enterprise) with Lifecycle Controller 1.x	OpenManage Essentials Dell Management Console IT Assistant OMSA Agent OpenManage Power Center (requires iDRAC7 Enterprise with Lifecycle Controller) OpenManage Integrations and Connections iDRAC7 Express for Blades with Lifecycle Controller (standard option)
Internal GPU support	Not supported	Not supported	Up to 4 single-width or double-width cards
Power efficiency	Gold	Gold	Platinum
High Availability (HA)	Hot-plug drives Optional redundant cooling Hot-plug redundant PSUs	Hot-plug drives Hot-plug redundant cooling Hot-plug redundant PSUs	Hot-plug drives Optional redundant cooling Hot-plug redundant PSUs Internal dual SD module

[1]T620 rackable version is available at time of initial order (not field convertible).

PowerEdge T420

Feature	PowerEdge T410	PowerEdge T420
Chassis	5U tower	5U rackable tower[1]
Processors	Intel Xeon processors 5500 and 5600 series	Intel Xeon processor E5-2400 product family

Feature	PowerEdge T410	PowerEdge T420
Internal interconnect	Intel QuickPath Interconnect	Intel QuickPath Interconnect
Memory	8 x DDR3 RDIMM and UDIMM	12 x DDR3 RDIMM and UDIMM
Hard drive bays	6 x 3.5"or 2.5" hot-plug or cabled	16 x 2.5" hot-plug or 8 x 3.5"/2.5" hot-plug or 4 x 3.5" cabled
RAID controller	PERC 6/i, SAS 6/iR, PERC 6/E, H200, H700, H800, S100, S300	PERC S110, H310, H710, H710P, H810
PCI slots	4 PCIe 2.0 + 1 PCIe 1.0	4 PCIe 3.0 + 2 PCIe 2.0
Embedded NIC	2 x 1GbE with optional TOE	2 x 1GbE Dual Port LOM with optional TOE
Power supplies	Non-redundant 525W Hot-plug, redundant 580W	Non-redundant 550W Hot-plug, redundant 495W, 750W, 1100W
Dell OpenManage Systems Management	Dell OpenManage Dell Management Console (DMC) Lifecycle Controller 1.x iDRAC6 (Express or Enterprise) with Lifecycle Controller 1.x	OpenManage Essentials Dell Management Console IT Assistant OMSA Agent OpenManage Power Center (requires iDRAC7 Enterprise with Lifecycle Controller) OpenManage Integrations and Connections Basic management (standard option)
Internal GPU support	No	Up to 2 single-width or 1 double-width card
Power efficiency	Gold	Platinum
High Availability (HA)	Hot-plug drives Hot-plug redundant PSU	Hot-plug drives Hot-plug redundant power supply units Fan fault tolerance Fault-resilient memory Internal dual SD modules

[1]Optional kit available for field conversion from tower to rackable unit.

PowerEdge T320

Feature	PowerEdge T310	PowerEdge T320
Chassis	5U tower	5U rackable tower[1]
Processors	Intel Xeon processors 3400 series	Intel Xeon processor E5-2400 product family
Internal interconnect	Intel DMI	Intel DMI 2.0
Memory	6 x DDR3 RDIMM or 4 x DDR3 UDIMM	6 x DDR3 RDIMM and UDIMM
Hard drive bays	4 x 3.5"or 2.5" hot-plug or cabled	16 x 2.5" or 8 x 2.5"/3.5" hot-plug or 4 x 3.5" cabled
RAID controller	PERC 6/i, SAS 6/iR, PERC 6/E, H200, H700, H800, S100, S300	PERC S110, H310, H710, H710P, H810
PCI slots	5 PCIe 2.0	3 PCIe 3.0 + 2 PCIe 2.0

Feature	PowerEdge T310	PowerEdge T320
Embedded NIC	2 x 1GbE Dual Port LOM with optional TOE	2 x 1GbE Dual Port LOM with optional TOE
Power supplies	Non-redundant 375W Hot-plug, redundant 400W	Non-redundant 350W Hot-plug, redundant 495W, 750W
Dell OpenManage Systems Management	Dell OpenManage Dell Management Console (DMC) Lifecycle Controller 1.x iDRAC6 (Express or Enterprise) with Lifecycle Controller 1.x	OpenManage Essentials Dell Management Console IT Assistant OMSA Agent OpenManage Power Center (requires iDRAC7 Enterprise with Lifecycle Controller) OpenManage Integrations and Connections Basic management (standard option)
Internal GPU support	No	1 single-width or 1 double-width card
Power efficiency	Silver	Platinum
High Availability (HA)	Hot-plug drives Hot-plug, redundant PSU	Hot-plug drives Soft redundant cooling Hot-plug, redundant PSU Fault resilient memory Internal dual SD module

[1]Optional kit available for field conversion from tower to rackable unit.

PowerEdge blade servers

Designed for even the most-taxing environments, the latest PowerEdge blade servers present a range of capabilities from unprecedented memory density and superb performance to exceptional density and new levels of efficiency, with no compromise on enterprise-class features.

PowerEdge M820

Feature	PowerEdge M910	PowerEdge M820
Chassis; enclosure	Full-height blade; PowerEdge M1000e Blade Enclosure	Full-height blade; PowerEdge M1000e Blade Enclosure
Processors	Intel Xeon processors 6500 and 7500 series Intel Xeon processors E7-2800, E7-4800, and E7-8800 product family	Intel Xeon processor E5-4600 product family
Internal interconnect	Intel QuickPath Interconnect	Intel QuickPath Interconnect
Memory	32 x DDR3 RDIMM and UDIMM	48 x DDR3 RDIMM, UDIMM, and LRDIMM
Hard drive bays	2 x 2.5" hot-plug	4 x 2.5" hot-plug
Embedded NIC	4 x 1GbE LOM	2 Dual Port Select Network Adapters: 3 options of 4 x 10GbE
RAID controller	PERC H200, H700, S100	PERC H310, H710, H710P
Express Flash PCIe SSD	No	Up to 2
I/O	4 PCIe 2.0 x8 mezz. card slots	4 x PCIe 3.0 x8 mezz. card slots
Optional SD port	Yes (RIPS)	Yes (redundant hypervisor)

Feature	PowerEdge M910	PowerEdge M820
Dell OpenManage Systems Management	Dell OpenManage Dell Management Console Lifecycle Controller 1.x iDRAC6 (Express or Enterprise) with Lifecycle Controller 1.x, Chassis Management Controller (CMC) 3.x	OpenManage Essentials Dell Management Console IT Assistant OMSA Agent OpenManage Power Center (requires iDRAC7 Enterprise with Lifecycle Controller) OpenManage Integrations and Connections iDRAC7 Express for Blades with Lifecycle Controller (standard option)

PowerEdge M620

Feature	PowerEdge M610	PowerEdge M710HD	PowerEdge M620
Chassis; enclosure	Half-height blade; PowerEdge M1000e Blade Enclosure	Half-height blade; PowerEdge M1000e Blade Enclosure	Half-height blade; PowerEdge M1000e Blade Enclosure
Processors	Intel Xeon processors 5500 and 5600 series	Intel Xeon processors 5500 and 5600 series	Intel Xeon processor E5-2600 product family
Internal interconnect	Intel QuickPath Interconnect	Intel QuickPath Interconnect	Intel QuickPath Interconnect
Memory	12 x DDR3 RDIMM and UDIMM	18 x DDR3 RDIMM and UDIMM	24 x DDR3 RDIMM, UDIMM, and LRDIMM
Hard drive bays	2 x 2.5" hot-plug	2 x 2.5" hot-plug	2 x 2.5" hot-plug
Embedded NIC	2 x 1GbE LOM	4 x 1GbE LOM	Dual Port Select Network Adapter: 3 options of 2 x 10GbE
RAID controller	PERC 6/i, SAS6/iR, PERC6/E, S100, H200, H700	Embedded PERC H200	S110, H310, H710, H710P
Express Flash PCIe SSD	No	No	Yes
I/O	2 PCIe 2.0 x8 mezz. card slots	2 PCIe 2.0 x8 mezz. card slots	2 x PCIe 3.0 x8 mezz. card slots
Optional SD port	Yes (RIPS)	Yes	Yes (redundant hypervisor)
Dell OpenManage Systems Management	Dell OpenManage Dell Management Console Lifecycle Controller 1.x iDRAC6 (Express or Enterprise) with Lifecycle Controller 1.x, Chassis Management Controller (CMC) 3.x	Dell OpenManage Dell Management Console Lifecycle Controller 1.x iDRAC6 (Express or Enterprise) with Lifecycle Controller 1.x, Chassis Management Controller (CMC) 3.x	OpenManage Essentials Dell Management Console IT Assistant OMSA Agent OpenManage Power Center (requires iDRAC7 Enterprise with Lifecycle Controller) OpenManage Integrations and Connections iDRAC7 Express for Blades with Lifecycle Controller (standard option)

PowerEdge M520

Feature	PowerEdge M610	PowerEdge M620	PowerEdge R420	PowerEdge M520
Chassis; enclosure	Half-height blade; PowerEdge M1000e Blade Enclosure	Half-height blade; PowerEdge M1000e Blade Enclosure	1U rack	Half-height blade; PowerEdge M1000e Blade Enclosure
Processors	Intel Xeon processors 5500 and 5600 series	Intel Xeon processor E5-2600 product family	Intel Xeon processor E5-2400 product family	Intel Xeon processors E5-2400 product family

Feature	PowerEdge M610	PowerEdge M620	PowerEdge R420	PowerEdge M520
Internal interconnect	Intel QuickPath Interconnect	Intel QuickPath Interconnect	Intel QuickPath Interconnect	Intel QuickPath Interconnect
Memory	12 x DDR3 RDIMM and UDIMM	24 x DDR3 RDIMM, UDIMM, and LRDIMM	12 x DDR3 RDIMM and UDIMM	12 x DDR3 RDIMM and UDIMM
Hard drive bays	2 x 2.5" hot-plug	2 x 2.5" hot-plug	4 x 3.5" cabled or hot-plug 8 x 2.5" hot-plug	2 x 2.5" hot-plug
Embedded NIC	2 x 1GbE LOM	Dual Port Select Network Adapter, 3 options of 2 x 10GbE	1 x 1GbE Dual Port LOM	4 x 1GbE Dual Port LOM
RAID	PERC 6/i, SAS6/iR, PERC6/E, S100, H200, H700	S110, H310, H710, H710P	S110, H310, H710, H710P, H810	S110, H310, H710, H710P
Express Flash support	Not supported	Up to 2	Not supported	Not supported
I/O	2 PCIe 2.0 x8 mezzanine card slots	2 x PCIe 3.0 x8 mezzanine card slots	2 PCIe 3.0	2 x PCIe 3.0 x8 mezzanine card slots
Optional SD port	Yes (redundant hypervisor + vFlash media)	Yes (redundant hypervisor + vFlash media)	Yes (redundant hypervisor + vFlash media)	Yes (redundant hypervisor + vFlash media)
Dell OpenManage Systems Management	Dell OpenManage Dell Management Console Lifecycle Controller 1.x iDRAC6 (Express or Enterprise) with Lifecycle Controller 1.x, Chassis Management Controller (CMC) 3.x	OpenManage Essentials Dell Management Console IT Assistant OMSA Agent OpenManage Power Center (requires iDRAC7 Enterprise with Lifecycle Controller) OpenManage Integrations and Connections iDRAC7 Express for Blades with Lifecycle Controller (standard option)	OpenManage Essentials Dell Management Console IT Assistant OMSA Agent OpenManage Power Center (requires iDRAC7 Enterprise with Lifecycle Controller) OpenManage Integrations and Connections Basic management (standard option)	OpenManage Essentials Dell Management Console IT Assistant OMSA Agent OpenManage Power Center (requires iDRAC7 Enterprise with Lifecycle Controller) OpenManage Integrations and Connections iDRAC7 Express for Blades with Lifecycle Controller (standard option)

PowerEdge M420

The PowerEdge M420 represents a new category, the 'quarter-height' blade. The M420 delivers unprecedented computational density by allowing up to 32 independent and individually serviceable Enterprise-class server nodes to be deployed in a single M1000e chassis. Its combination of performance, density, and efficiency makes it a perfect fit for data centers that are space-constrained or simply wish to take advantage of the economic benefits that such density can provide, and can handle such varied applications as mid-tier databases, high node-count virtual environments, or even distributed workloads such as cloud computing or HPC.

Feature	PowerEdge M620	PowerEdge M520	PowerEdge M420
Chassis; enclosure	Half-height blade; PowerEdge M1000e Blade Enclosure	Half-height blade; PowerEdge M1000e Blade Enclosure	Quarter-height blade; PowerEdge M1000e Blade Enclosure
Processors	Intel Xeon processor E5-2600 product family	Intel Xeon processors E5-2400 product family	Intel Xeon processors E5-2400 product family
Internal interconnect	Intel QuickPath Interconnect	Intel QuickPath Interconnect	Intel QuickPath Interconnect
Memory	24 x DDR3 RDIMM, UDIMM, and LRDIMM	12 x DDR3 RDIMM and UDIMM	6 x DDR3 RDIMM

Feature	PowerEdge M620	PowerEdge M520	PowerEdge M420
Hard drive bays	2 x 2.5" hot-plug	2 x 2.5" hot-plug	2 x 1.8" hot-plug
Embedded NIC	Dual Port Select Network Adapter, 3 options of 2 x 10GbE	4 x 1GbE Dual Port LOM	2 x 10GbE Dual Port LOM
RAID	S110, H310, H710, H710P	S110, H310, H710, H710P	H310
Express Flash PCIe SSD	Up to 2	Not supported	Not supported
I/O	2 x PCIe 3.0 x8 mezzanine card slots	2 x PCIe 3.0 x8 mezzanine card slots	1 x PCIe 3.0 x8 mezzanine card slots
Optional SD port	Yes (redundant hypervisor + vFlash media)	Yes (redundant hypervisor + vFlash media)	Yes (redundant hypervisor + vFlash media)
Dell OpenManage Systems Management	OpenManage Essentials Dell Management Console IT Assistant OMSA Agent OpenManage Power Center (requires iDRAC7 Enterprise with Lifecycle Controller) OpenManage Integrations and Connections iDRAC7 Express for Blades with Lifecycle Controller (standard option)	OpenManage Essentials Dell Management Console IT Assistant OMSA Agent OpenManage Power Center (requires iDRAC7 Enterprise with Lifecycle Controller) OpenManage Integrations and Connections iDRAC7 Express for Blades with Lifecycle Controller (standard option)	OpenManage Essentials Dell Management Console IT Assistant OMSA Agent OpenManage Power Center (requires iDRAC7 Enterprise with Lifecycle Controller) OpenManage Integrations and Connections iDRAC7 Express for Blades with Lifecycle Controller (standard option)

New Intel Xeon processors

Featuring Intel Xeon processors E5-4600, E5-2600 and E5-2400 product families, the new line of PowerEdge servers are capable of handling the widest possible range of applications, everything from the edge-of-network to the most demanding workloads at the core of your data center, all while being conscious that power efficiency and performance per watt are crucial to modern IT organizations. The following table compares the latest and previous generations of Intel Xeon processors supported by PowerEdge servers.

Processors for 1-socket servers

Class	Feature	Processors for 1-socket 11th generation servers		Processors for 1-socket 12th generation servers		
		Intel Celeron, Pentium & Core i3 Processors	Intel Xeon processors 3400 series	Intel Xeon processors 1400 series	Intel Xeon processors E5-1410	Intel Xeon processors E5-2400 product family
Advanced Performance-oriented with highest functionality and optimal server ROI	**Frequency**	Not available	Not available	Not available	Not available	2.1–2.3GHz
	Cores					8
	Cache					20MB
	Max DDR3 memory speed					1600MT/s
	TDP					95W
	Turbo/HT					Turbo 2.0, HT
Standard Best balance of	**Frequency**	Not available	Not available	Not available	2.8GHz	1.9-2.4GHz

Class	Feature	Processors for 1-socket 11th generation servers		Processors for 1-socket 12th generation servers		
		Intel Celeron, Pentium & Core i3 Processors	Intel Xeon processors 3400 series	Intel Xeon processors 1400 series	Intel Xeon processors E5-1410	Intel Xeon processors E5-2400 product family
performance, value, and advanced features	Cores				4	6
	Cache				10MB	15MB
	Max DDR3 memory speed				1333MT/s	1333MT/s
	TDP				80W	95W
	Turbo/HT				Turbo 2.0, HT	Turbo 2.0, HT
Basic Cost-efficient with basic features	Frequency	2.26–3.20GHz	1.86–2.26GHz	2.6-2.8GHz	Not available	1.8-2.4GHz
	Cores	2	2–4	2		4
	Cache	2–4MB	4MB	5MB		10MB
	Max DDR3 memory speed	Up to 1333MT/s	800MT/s	1066MT/s		1066MT/s
	TDP	Up to 73W	80W	80W		80W
	Turbo/HT	No Turbo, no HT	No Turbo, no HT	No Turbo, no HT		No Turbo, no HT
Low power Focused on energy efficiency with lowest power and best performance per watt	Frequency	Not available	Not available	Not available	Not available	1.8-2.0GHz
	Cores					6 to 8
	Cache					Up to 20MB
	Max DDR3 memory speed					Up to 1600MT/s
	TDP					60-70W
	Turbo/HT					Turbo 2.0, HT
Frequency optimized Ideal for HPC and technical computing with the highest frequency processor offering	Frequency	Not available	Not available	Not available	Not available	Not available
	Cores					
	Cache					
	Max DDR3 memory speed					
	TDP					
	Turbo/HT					

Processors for 2-socket servers

Class	Feature	Processors for 2-socket 11th generation servers		Processors for 2-socket 12th generation servers	
		Intel Xeon processors 5500 series	Intel Xeon processors 5600 series	Intel Xeon processors E5-2600 product family	Intel Xeon processors E5-2400 product family
Advanced Performance-oriented with highest functionality and optimal server ROI	Frequency	2.66–2.93GHz	2.66–3.46GHz	2.0–2.9GHz	2.1–2.3GHz
	Cores	4	6	8	8
	Cache	8MB	12MB	20MB	20MB

Class	Feature	Processors for 2-socket 11th generation servers		Processors for 2-socket 12th generation servers	
		Intel Xeon processors 5500 series	Intel Xeon processors 5600 series	Intel Xeon processors E5-2600 product family	Intel Xeon processors E5-2400 product family
	QPI speed	6.4GT/s	6.4GT/s	8.0GT/s	8.0GT/s
	Max DDR3 memory speed	1333MT/s	1333MT/s	1600MT/s	1600MT/s
	TDP	95W	95–130W	95–135W	95W
	Turbo/HT	Turbo, HT	Turbo, HT	Turbo 2.0, HT	Turbo 2.0, HT
Standard Best balance of performance, value, and advanced features	**Frequency**	2.26–2.53GHz	2.40–2.53GHz	2.0–2.5GHz	1.9-2.4GHz
	Cores	4	4 to 6	6	6
	Cache	8MB	12MB	15MB	15MB
	QPI speed	5.86GT/s	5.86GT/s	7.2GT/s	7.2GT/s
	Max DDR3 memory speed	1066MT/s	Up to 1333MT/s	1333MT/s	1333MT/s
	TDP	80W	80W	95W	95W
	Turbo/HT	Turbo, HT	Turbo, HT	Turbo 2.0, HT	Turbo 2.0, HT
Basic Cost-efficient with basic features	**Frequency**	1.86–2.26GHz	1.6–2.26GHz	1.8-2.4GHz	1.8-2.4GHz
	Cores	2 to 4	4	4	4
	Cache	4MB	Up to 12MB	10MB	10MB
	QPI speed	4.8GT/s	4.8GT/s	6.4GT/s	6.4GT/s
	Max DDR3 memory speed	800MT/s	1066MT/s	1066MT/s	1066MT/s
	TDP	80W	80W	80W	80W
	Turbo/HT	No Turbo, no HT	No Turbo, no HT	No Turbo, no HT	No Turbo, no HT
Low power Focused on energy efficiency with lowest power and best performance per watt	**Frequency**	2.13-2.40GHz	1.86-2.26GHz	1.8-2.0GHz	1.8-2.0GHz
	Cores	4	4 to 6	6 to 8	6 to 8
	Cache	Up to 8MB	12MB	Up to 20MB	Up to 20MB
	QPI speed	Up to 5.86GT/s	Up to 5.86GT/s	Up to 8.0GT/s	Up to 8.0GT/s
	Max DDR3 memory speed	Up to 1066MT/s	Up to 1333MT/s	Up to 1600MT/s	Up to 1600MT/s
	TDP	60W	40-60W	60-70W	60-70W
	Turbo/HT	Turbo, HT	Turbo, HT	Turbo 2.0, HT	Turbo 2.0, HT
Frequency optimized Ideal for HPC and technical computing with the highest frequency processor offering	**Frequency**	Not available for Intel Xeon processors 5500 Series	2.93-3.60GHz	2.6-3-3GHz	Not available Intel Xeon processors E5-2400 product family
	Cores		4	2 to 6	
	Cache		12MB	Up to 15MB	
	QPI speed		6.4GT/s	8.0GT/s	

Class	Feature	Processors for 2-socket 11th generation servers		Processors for 2-socket 12th generation servers	
		Intel Xeon processors 5500 series	Intel Xeon processors 5600 series	Intel Xeon processors E5-2600 product family	Intel Xeon processors E5-2400 product family
	Max DDR3 memory speed		Up to 1333MT/s	1600MT/s	
	TDP		95-130W	80-130W	
	Turbo/HT		Turbo, HT	Turbo 2.0, HT	

Processors for 4-socket servers

Class	Feature	Processors for 4-socket 11th generation servers		Processors for 4-socket 11th generation servers
		Intel Xeon processors 6500/6700 series	Intel Xeon processors E7 family	Intel Xeon processors E5-4600 product family
Advanced Performance-oriented with highest functionality and optimal server ROI	Frequency	2.0–2.6GHz	2.0–2.4GHz	2.4–2.7GHz
	Cores	8	10	8
	Cache	18–24MB	24–30MB	20MB
	QPI speed	6.4GT/s	6.4GT/s	8.0GT/s
	Max DDR3 memory speed	1066MT/s	1066MT/s	1600MT/s
	TDP	130W	130W	Up to 130W
	Turbo/HT	Turbo, HT	Turbo, HT	Turbo 2.0, HT
Standard Best balance of performance, value, and advanced features	Frequency	1.86–2.0GHz	2.0–2.13GHz	2.4–2.2GHz
	Cores	6	8	Up to 8
	Cache	Up to 18MB	Up to 24MB	Up to 16MB
	QPI speed	Up to 6.4GT/s	Up to 6.4GT/s	7.2GT/s
	Max DDR3 memory speed	Up to 1066MT/s	Up to 1066MT/s	1333MT/s
	TDP	105W	105W	95W
	Turbo/HT	Turbo, HT	Turbo, HT	Turbo 2.0, HT
Basic Cost-efficient with basic features	Frequency	1.73–1.86GHz	1.73–1.86GHz	2.0-2.2GHz
	Cores	4	6	Up to 6
	Cache	12MB	18MB	10-12MB
	QPI speed	4.8GT/s	4.8GT/s	6.4GT/s
	Max DDR3 memory speed	800MT/s	800MT/s	1066MT/s
	TDP	Up to 105W	Up to 105W	95W
	Turbo/HT	No Turbo, no HT	No Turbo, no HT	No Turbo, no HT
Low power Focused on	Frequency	1.86GHz	2.13GHz	2.7GHz

Class	Feature	Processors for 4-socket 11th generation servers		Processors for 4-socket 11th generation servers
		Intel Xeon processors 6500/6700 series	Intel Xeon processors E7 family	Intel Xeon processors E5-4600 product family
energy efficiency with lowest power and best performance per watt	**Cores**	Up to 8	10	8
	Cache	Up to 24MB	30MB	20MB
	QPI speed	5.86GT/s	6.4GT/s	8.0GT/s
	Max DDR3 memory speed	978MT/s	1066MT/s	1600MT/s
	TDP	95W	105W	115W
	Turbo/HT	Turbo, HT	Turbo, HT	Turbo 2.0, HT
Frequency optimized Ideal for HPC and technical computing with the highest frequency processor offering	**Frequency**	2.93-3.60GHz	2.93-3.60GHz	2.9GHz
	Cores	6	8	6
	Cache	18MB	24MB	15MB
	QPI speed	5.86GT/s	6.4GT/s	7.2GT/s
	Max DDR3 memory speed	978MT/s	1066MT/s	1333MT/s
	TDP	130W	130W	130W
	Turbo/HT	Turbo, HT	Turbo, HT	Turbo 2.0, HT

GPU support

Providing accelerated performance for a variety of applications, including medical imaging, VDI and HPC implementations, GPU technology is supported on a number of PowerEdge systems, as detailed in the following table.

PowerEdge server	GPU card support (maximum)
M610x	Up to 2 single-width or 1 double-width GPU
R620	1 single-width 75W actively cooled GPU
R720	Up to 4 single-width, full-length, 150W GPUs or 2 double-width, full-length, 300W GPUs
R820	Up to 2 single-width 75W actively cooled GPU
T320	1 single-width or 1 double-width actively cooled GPU with a total 200W combined power draw
T420	Up to 2 single-width or 1 double-width actively cooled GPU with a total 200W combined power draw
T620	Up to 4 double-width actively cooled GPUs with a total 200W combined power draw

Increased memory capabilities

With increased memory capacity and DIMM density, the new PowerEdge server line offers greater flexibility with expandable memory options.

Memory types supported

The following table lists the memory types supported by the new PowerEdge servers. See server comparison tables for memory type availability for each server.

Feature	UDIMM	RDIMM	LRDIMM
Register	No	Yes	Yes
Buffer	No	No	Yes
Frequencies	800, 1066, or 1333MT/s	800, 1066, 1333, or 1600MT/s	1066 or 1333MT/s
Ranks supported	1 or 2	1, 2, or 4	4
Capacity per DIMM	2 or 4GB	2, 4, 8, 16, or 32GB	32GB
Maximum DIMMS per channel	2	3	3
DRAM technology	x8	x4 or x8	x4
Temperature sensor	Yes	Yes	Yes
ECC	Yes	Yes	Yes
SDDC	Yes (with advanced ECC mode)	Yes	Yes
Address parity	Yes	Yes	Yes

Memory frequency capabilities

The following table lists memory configuration and performance details for the new 2- or 4-socket processor-based PowerEdge servers with 3 DIMMs per channel (R620, R720, R720xd, R820, M620, M820* and T620), based on the population of the number and type of DIMMs per memory channel.

The next 3 memory frequency tables use the following acronyms: SR=single rank, DR=dual rank, QR=quad rank, UDIMM=unbuffered DIMM, RDIMM=registered DIMM, and LRDIMM=load reduced DIMM.

DIMM type	DIMM 0	DIMM 1	DIMM 2	# of DIMMs	Speed (MT/s)			
					800	1066	1333	1600
UDIMM	SR			1	•	•	•	
	DR			1	•	•	•	
	SR	SR		2	•	•	•	
	SR	DR		2	•	•	•	
	DR	DR		2	•	•	•	
RDIMM	SR			1	•	•	•	•
	DR			1	•	•	•	•
	QR			1	•	•		
	SR	SR		2	•	•	•	•
	SR	DR		2	•	•	•	

DIMM type	DIMM 0	DIMM 1	DIMM 2	# of DIMMs	Speed (MT/s)			
					800	1066	1333	1600
	DR	DR		2	•	•	•	•
	QR	SR		2	•			
	QR	DR		2	•			
	QR	QR		2	•			
	SR	SR	SR	3	•	•		
	SR	SR	DR	3	•	•		
	SR	DR	DR	3	•	•		
	DR	DR	DR	3	•	•		
LRDIMM	QR			1		•	•	
	QR	QR		2		•	•	
	QR	QR	QR	3		•		

*M820 does not support UDIMMs

The following table lists memory configuration and performance details for the new 1- or 2-socket processor-based PowerEdge servers with 2 DIMMs per channel (M520, R320, R420, R520, T320, and T420), based on the population of the number and type of DIMMs per memory channel.

DIMM type	DIMM 0	DIMM 1	# of DIMMs	Speed (MT/s)			
				800	1066	1333	1600
UDIMM	SR		1	•	•	•	
	DR		1	•	•	•	
	SR	SR	2	•	•	•	
	SR	DR	2	•	•	•	
	DR	DR	2	•	•	•	
RDIMM	SR		1	•	•	•	•
	DR		1	•	•	•	•
	QR		1	•	•		
	SR	SR	2	•	•	•	•
	SR	DR	2	•	•	•	
	DR	DR	2	•	•	•	•
	QR	SR	2	•	•		
	QR	DR	2	•	•		
	QR	QR	2	•	•		

The following table lists memory configuration and performance details for the new 2-socket processor-based PowerEdge server with 1 DIMM per channel (M420), based on the population of the number and type of DIMMs per memory channel.

DIMM type	DIMM 0	# of DIMMs	Speed (MT/s)			
			800	1066	1333	1600
RDIMM	SR	1			•	•
	DR	1			•	•
	QR	1			•	

New I/O options

Networking options for the new PowerEdge server line allow you to tailor your network throughput to match your application needs, enabling added I/O performance. The following tables list the supported I/O options.

Rack and tower server I/O support

Form factor	Device name	Speed	R820	R720	R720xd	R620	R520	R420	R320	T620	T420	T320
Select Network Adapter	Broadcom® 5720 4P Base-T	1Gb/s	•	•	•	•						
	Intel I350 4P Base-T	1Gb/s	•	•	•	•						
	Broadcom 57800S 2P 1Gb Base-T 2P 10Gb SFP+	1Gb/s 10Gb/s	•	•	•	•						
	Broadcom 57800S 2P 1Gb Base-T 2P 10Gb Base-T	1Gb/s 10Gb/s	•	•	•	•						
	Intel X540 2P 1Gb Base-T 2P 10Gb Base-T	1Gb/s 10Gb/s	•	•	•	•						
1Gb LOM	Broadcom 5720 2P Base-T	1Gb/s					•	•	•		•	•
	Intel I350 2P Base-T	1Gb/s								•		
1Gb/10Gb adapters	Broadcom 5720 2P Base-T	1Gb/s	•	•	•	•	•	•	•	•	•	•
	Broadcom 5719 4P Base-T	1Gb/s	•	•	•	•	•	•	•	•	•	•
	Intel I350 2P Base-T	1Gb/s	•	•	•	•	•	•	•	•	•	•
	Intel I350 4P Base-T	1Gb/s	•	•	•	•	•	•	•	•	•	•
	Broadcom 57810S 2P SFP+	10Gb/s	•	•	•	•	•	•	•	•	•	
	Broadcom 57810S 2P Base-T	10Gb/s	•	•	•	•	•	•	•	•	•	
	Intel X520 2P SFP+	10Gb/s	•	•	•	•	•	•	•	•	•	
	Intel X540 2P Base-T	10Gb/s	•	•	•	•	•	•	•	•	•	
	QLogic® QLE8262 2P SFP+	10Gb/s	•	•	•	•	•	•	•	•	•	
	Brocade® BR1020 2P SFP+	10Gb/s	•	•	•	•	•	•	•	•	•	
FC4/FC8 adapters	QLogic QLE2460	4Gb/s	•	•	•	•	•	•	•	•	•	•
	QLogic QLE2462	4Gb/s	•	•	•	•	•	•	•	•	•	•
	QLogic QLE2560	8Gb/s	•	•	•	•	•	•	•	•	•	•

Form factor	Device name	Speed	R820	R720	R720xd	R620	R520	R420	R320	T620	T420	T320
	QLogic QLE2562	8Gb/s	•	•	•	•	•	•	•	•	•	•
	Emulex® LPe12000	8Gb/s	•	•	•	•	•	•	•	•	•	•
	Emulex LPe12002	8Gb/s	•	•	•	•	•	•	•	•	•	•
	Brocade BR815	8Gb/s	•	•	•	•	•	•	•	•	•	•
	Brocade BR825	8Gb/s	•	•	•	•	•	•	•	•	•	•

Blade server I/O support

Form factor	Device name	Protocol	M820	M620	M520	M420
Select Network Adapter	Broadcom 57810-k 2P	10Gb/s	•	•		
	Intel X520-k 2P	10Gb/s	•	•		
	QLogic QMD8262-k 2P	10Gb/s	•	•		
10Gb/1Gb LOM	Broadcom 57810S-k 2P	10Gb/s				•
	Broadcom 5720 4P Base-T	1Gb/s			•	
1Gb/10Gb adapters	Intel I350 Serdes 4P	1Gb/s	•	•	•	•
	Broadcom 5719 Serdes 4P	1Gb/s	•	•	•	•
	Broadcom 57810S-k 2P	10Gb/s	•	•	•	•
	Intel X520-x/k 2P	10Gb/s	•	•	•	•
	QLogic QME8262-k 2P	10Gb/s	•	•	•	•
	Brocade BR1741M-k 2P	10Gb/s	•	•	•	•
FC4/FC8	QLogic QME2572 2P	8Gb/s	•	•	•	•
	Emulex LPe1205-M 2P	8Gb/s	•	•	•	•
Infiniband	Mellanox® QDR CX-3	40Gb/s	•	•	•	
	Mellanox FDR10 CX-3	40Gb/s				•
	Mellanox FDR CX-3	56Gb/s	•	•		

Enhanced storage performance capacity

The latest generation of PowerEdge servers brings additional storage performance, reliability and capacity. New PowerEdge Expandable RAID Controller (PERC) cards feature non-volatile memory (NVM) in cache and can even boost RAID performance further with CacheCade—the ability to use solid state disks (SSDs) as an expanded cache for enhanced throughput. And with the addition of Dell's Express Flash PCIe-SSDs to the PowerEdge lineup—a front-accessible and hot-pluggable PCIe SSD technology—as well as increased internal storage capabilities on the new PowerEdge rack and tower servers, you now have more storage technologies, options and capacities to choose from than ever before.

The following table provides lists the end-of-life and replacement RAID controllers, and which RAID controllers the new servers support.

RAID controllers	M820	M620	M520	M420	R820	R720	R720xd	R620	R520	R420	R320	T620	T420	T320
PERC H810 replaces PERC H800 PERC 6/E					•	•	•	•	•	•	•	•	•	•

RAID controllers	M820	M620	M520	M420	R820	R720	R720xd	R620	R520	R420	R320	T620	T420	T320
PERC H710P replaces PERC H700 and PERC 6/i	•	•	•		•	•	•	•	•	•		•	•	•
PERC H710 replaces PERC H700 and PERC 6/i	•	•	•		•	•	•	•	•	•	•	•	•	•
PERC H310 replaces PERC S300, PERC H200 and SAS 6/iR	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PERC S110 replaces PERC S100		•	•			•		•	•	•	•	•	•	•

Supported RAID controllers

The following table describes the RAID controllers supported by the new PowerEdge servers.

Controller	Features	RAID modes supported	Form factor	Usage model
PERC H710P (internal) **PERC H810** (external)	Includes 1GB NV cache, premium performance and feature set, security SED/EKMS, and SSD as cache	0, 1, 10, 5, 50, 6, 60	Adapter, mini (H810 is adapter type only)	Premium performance
PERC H710	Includes 512MB cache, advanced feature set, security SED/EKMS, and SSD as cache	0, 1, 10, 5, 50, 6, 60	Adapter, mini	Performance
PERC H310	Supports hot-plug drives, expansion, pass-thru	0, 1, 10, 5, 50	Adapter, mini	Value
PERC S110 (software RAID)	Supports hot-plug SATA drives (4 drive maximum); no expansion; Windows only	0, 1, 5, 10	Motherboard embedded SATA	Entry-level

Supported hard drives

The following table lists the hard drives supported by the new PowerEdge servers.

Hard drive type	Capacity	M820	M620	M520	M420	R820	R720	R720xd	R620	R520	R420	R320	T620	T420	T320
3.5" SATA (7.2K, 3Gb)	250GB						•	•					•		
	500GB						•	•		•	•	•	•	•	•
	1TB						•	•		•	•	•	•	•	•
	2TB						•	•		•	•	•	•	•	•
3.5" nearline SAS (7.2K, 6Gb)	1TB						•	•			•	•	•	•	•
	2TB						•	•			•	•	•	•	•
	3TB						•	•			•	•	•	•	•

Hard drive type	Capacity	M820	M620	M520	M420	R820	R720	R720xd	R620	R520	R420	R320	T620	T420	T320
3.5" SAS (15K, 6Gb)	300GB						•	•		•			•	•	•
	600GB						•	•		•	•	•	•	•	•
2.5" SATA (7.2K, 3Gb)	250GB		•			•	•	•	•		•	•	•	•	•
	500GB		•			•	•	•	•		•	•	•	•	•
	1TB		•			•	•	•	•		•	•	•	•	•
2.5" nearline SAS (7.2K, 6Gb)	500GB		•			•	•	•	•		•	•	•	•	•
	1TB		•			•	•	•	•		•	•	•	•	•
	1TB (SED)		•				•	•	•		•	•	•		
2.5" SAS (10K, 6Gb)	300GB		•			•	•	•	•	•	•	•	•	•	•
	600GB		•			•	•	•	•	•	•	•	•	•	•
	900GB		•			•	•	•	•	•	•	•	•	•	•
	900GB (SED)		•				•	•	•	•	•	•	•		
2.5" SAS (15K, 6Gb)	146GB		•			•	•	•	•	•	•	•	•	•	•
	300GB		•			•	•	•	•	•	•	•	•	•	•
	300GB (SED)		•				•	•	•	•	•	•	•		
2.5" SAS SSD (SLC, 6Gb)	200GB		•				•	•	•	•	•	•	•	•	•
	400GB		•				•	•	•	•	•	•	•	•	•
2.5" SATA SSD (MLC, 3Gb)	100GB		•				•	•	•	•	•	•	•	•	•
	200GB		•			•	•	•	•	•	•	•	•	•	•
1.8" uSATA SSD	50GB				•										
	200GB				•										

PowerEdge Express Flash device support

The following table details the PowerEdge Express Flash PCIe-SSD device support on the new PowerEdge servers.

PowerEdge server	Express Flash supported
M620	2 front-access, hot-plug
M820	2 front-access, hot-plug
R620	2 front-access, hot-plug
R720	4 front-access, hot-plug
R820	4 front-access, hot-plug
T620	4 front-access, hot-plug

Supported operating systems

The following table provides details on which operating systems are supported on the newest PowerEdge servers. For further information on supported operating systems on new and previous generations of PowerEdge servers, visit Dell.com/OSsupport.

Server	Red Hat Enterprise Linux® 6.2[1]	Red Hat Enterprise Linux 5.8[2]	Red Hat Enterprise Linux for HPC	SUSE® Linux Enterprise Linux 11 SP2	SUSE Linux Enterprise Linux 10 SP4	Microsoft® Windows Server® 2008 R2 SP1	Microsoft Windows Server 2008 SP2	Microsoft Windows® Small Business Server 2011
M820	•	•	•	•	•	•	•	
M620	•	•	•	•	•	•	•	
M520	•	•	•	•	•	•	•	
M420	•[3]		•	•	•	•	•	
R820	•	•	•	•	•	•	•	
R720	•	•	•	•	•	•	•	•
R720xd	•	•	•	•	•	•	•	•
R620	•	•	•	•	•	•	•	•
R520	•	•		•	•	•	•	•
R420	•	•	•	•	•	•	•	•
R320	•	•		•	•	•	•	•
T620	•	•		•	•	•	•	•
T420	•	•		•	•	•	•	•
T320	•	•		•	•	•	•	•

[1]RHEL 6.1 is the minimum supported version except for the M420, T420 and T320. Current factory install is RHEL 6.2.
[2]RHEL 5.7 is the minimum supported version except for the M420, T420 and T320. Current drop in box option is RHEL 5.8.
[3]RHEL 6.2 is the minimum supported version.

Virtualization support

The following table highlights the virtualization support for the new PowerEdge servers. Support for Microsoft Hyper-V™ falls under the OS support for the primary OS version Windows Server 2008.

Server	VMware® ESXi™ Embedded v4.1 U2 (FI)	VMware ESXi Installable v4.1 U2	VMware ESX™ v4.1 U2	VMware ESXi v5.0 U1 (FI or DIB)	Citrix® XenServer™ 6.0	Red Hat Enterprise Virtualization® 3.0[1]
M820	•	•	•	•	•	•
M620	•	•	•	•	•	•
M520	•	•	•	•	•	•
M420	•	•	•	•	•	•
R820	•	•	•	•	•	•
R720	•	•	•	•	•	•
R720xd	•	•	•	•	•	•
R620	•	•	•	•	•	•
R520	•	•	•	•	•	•
R420	•	•	•	•	•	•
R320	•	•	•	•	•	
T620	•	•	•	•	•	•

Server	VMware® ESXi™ Embedded v4.1 U2 (FI)	VMware ESXi Installable v4.1 U2	VMware ESX™ v4.1 U2	VMware ESXi v5.0 U1 (FI or DIB)	Citrix® XenServer™ 6.0	Red Hat Enterprise Virtualization® 3.0[1]
T420	•	•	•	•	•	•
T320	•	•	•	•	•	

FI= Factory Install; DIB=Drop-in-box
[1]No OpenManage support; drop-in-box license registration card only.

Simplified, streamlined and automated systems management

Dell OpenManage systems management is designed to simplify, streamline and automate the most common tasks that systems administrators perform throughout the server lifecycle of deployment, updates, monitoring and maintenance. Leveraging the latest industry standard protocols , the Dell OpenManage portfolio delivers intelligent management functionality embedded within the server itself, offers low-touch processes that require less time to perform with fewer tools, and integrates with major third-party systems management solutions. Most OpenManage tools are offered as software downloads available from Support.Dell.com.

Systems management transitions

The following table lists some key feature changes from the previous generation of Dell PowerEdge servers.

Previous generation	New generation
Integrated Dell Remote Access Controller 6 (iDRAC6)	Non-Blade server series 600-800: Integrated Dell Remote Access Controller (iDRAC) 7 Express with Lifecycle Controller 2.x,upgradeable to iDRAC7 Enterprise with Lifecycle Controller 2.x digital license key enablement and free trial evaluation period for Enterprise. Non-Blade server series 200-500: Basic Management is default, with iDRAC7 Express with Lifecycle Controller and iDRAC7 Enterprise with Lifecycle Controller and vFlash available as upgrades. Blade servers: Default is iDRAC7 Express for Blades with Lifecycle Controller 2.x upgradeable to iDRAC7 Enterprise with Lifecycle Controller 2.x
Lifecycle Controller 1.x	iDRAC 7 Express or Enterprise with Lifecycle Controller 2.x
IT Assistant (ITA)	OpenManage Essentials (OME) (new)
Chassis Management Controller (CMC) 3	Chassis Management Controller (CMC) 4
OpenManage Server Administrator 6.5 (OMSA)	OpenManage Server Administrator 7 (OMSA) or Agent-free management
Baseboard Management BIOS Binary (BBB)	Unified Extensible Firmware Interface (UEFI)
—	OpenManage Power Center Management Console (new)

iDRAC7 with Lifecycle Controller

The iDRAC7 with Lifecycle Controller is the heart of the new generation of Dell PowerEdge server embedded management. Besides enabling agent-free management, the iDRAC7 with Lifecycle Controller provides remote access to the system—whether or not there is a functioning operating system running on the server. This embedded management feature helps simplify and automate all aspects of server lifecycle management: deployment, updates, monitoring, and maintenance.

The following table describes the features and benefits of iDRAC7 with Lifecycle Controller.

Feature	Function	Benefit
Out of band (OOB)	iDRAC7 offers real-time OOB discovery, inventory, deployment monitoring, alerting and updates for servers and internal storage	Manage servers independent of the OS type or status—even if an OS is not installed
Single code base	All server types have same embedded management hardware and firmware	Simplified and uniform maintenance across server platforms
Improved performance	The iDRAC7 has a faster processor, memory, video compression offload and many other performance improvements	A smoother, real-time, user experience for remote management and less time performing common management tasks
Dedicated GigE port (rack and tower systems)	Gigabit Ethernet replaces 10/100 on iDRAC6	Faster throughput for better performance; better compatibility with setup for switches
Email alerts	Simplified, more informative and greater coverage than previous versions of iDRAC	More detail allows IT administrators to be more efficient in diagnosing and remediating an issue; alerts include a direct, embedded URL in the email notification to further speed resolution
vFlash media	No longer a separate order feature; is included with iDRAC7 Enterprise	Simplifies the ordering process and combines full feature set to the iDRAC7 Enterprise; allows for use of a non-Dell SD card
Enhanced power management	Integration with Intel Node Manager provides data center level power management (requires iDRAC7 Enterprise)	Fine tune data center power, policies, capping, and usage; report on historical power usage by rack, row, or room using Power Center Manager (new)
Electronic licensing	Upgrades to iDRAC7 Express or iDRAC7 Enterprise by software licensing key and license portal (may require installation of hardware option for 200-500 series servers)	Server series 600-800: Digital license installed in factory; free 30-day trial versions are available; uses a license management portal versus paper-based licenses and simplifies license management. Server series 300-500: If iDRAC7 Express or iDRAC7 Enterprise is ordered during initial point of sale, license key is installed. If Basic Management is ordered during initial point of sale, customer must request a license key through the Dell Licensing Portal. For most server models, embedded server management and electronic licensing enables feature enhancements that do not require installation of additional hardware or system downtime.

iDRAC7 with Lifecycle Controller licensing

The licensing for the iDRAC7 is now digital-key enabled in the new generation of Dell PowerEdge servers. In other words, you can upgrade to a higher level with a license key. This also allows for a free 30-day trial license. In most cases, no additional hardware is required to be installed. The following table highlights the key features for each license level and compares to the features contained in the previous generation of Dell PowerEdge servers.

Feature (function)	BMC	Basic management	iDRAC6 Express	iDRAC7 Express	iDRAC7 Express for Blades	iDRAC 6 Enterprise	iDRAC 6 Enterprise with vFlash	iDRAC7 Enterprise
Local configuration with USC	•	•	•	•	•	•	•	•
IPMI 2.0	•	•	•	•	•	•	•	•
Embedded diagnostics	•	•	•	•	•	•	•	•
Local OS install	•	•	•	•	•	•	•	•
Local updates		•	•	•	•	•	•	•
Driver pack		•	•	•	•	•	•	•
Encryption			•	•	•	•	•	•
Shared NIC (LOM)[1]	•	•	•	•		•	•	•
Dedicated NIC 1Gbps (100MB in iDRAC6)					•[2]	•	•	•[2]

Feature (function)	BMC	Basic management	iDRAC6 Express	iDRAC7 Express	iDRAC7 Express for Blades	iDRAC 6 Enterprise	iDRAC 6 Enterprise with vFlash	iDRAC7 Enterprise
IPv6			•	•	•	•	•	•
Auto-discovery			•	•	•	•	•	•
Auto-recovery			•	•	•	•	•	•
Web GUI			•	•	•	•	•	•
Remote CLI				•	•	•	•	•
Local/SSH CLI			•	•	•	•	•	•
Serial redirection			•	•	•	•	•	•
Remote config			•	•	•	•	•	•
Remote update		•[3]	•	•	•	•	•	•
Email alerts			•	•	•	•	•	•
SNMP alerts				•	•	•	•	•
Comprehensive monitoring				•	•	•	•	•
Part replacement							•	•
Backup & restore configurations							•	•
Virtual console (4 user)					•[4]	•	•	•
Virtual console chat								•
Support for customer supplied SD cards for vFlash media								•
Virtual flash partitions							•	•
Virtual media					•	•	•	•
Virtual folders								•
Remote file share						•	•	•
Crash screen capture[5]			•	•	•	•	•	•
Crash video playback								•
Boot record/playback			•			•	•	•
Power control		•[3]	•	•	•	•	•	•
Power monitoring			•	•	•	•	•	•
Power capping								•
Enterprise group power management								•
Directory services (AD, LDAP)			•			•	•	•
PK authentication						•	•	•
Two-factor authentication[6]			•			•	•	•

[1]Rack and tower systems only; [2]Blade-to-chassis internal connection is 100MB; [3]Feature available with IPMI, not web GUI; [4]Single user; [5]Requires OMSA agent on target server; [6]Uses Active-X on Microsoft Internet Explorer® only

Agent-free server management

With the launch of Dell PowerEdge 12th generation servers, Dell provides enhanced server monitoring functionality that does not require installation of a software-based systems management agent within the host operating system. The new agent-free monitoring capabilities now complete the agent-free server lifecycle management operations first available with Dell PowerEdge 11th generation servers: deployment, updates and maintenance.

Agent-free advantages	Now provides agent-free monitoring that includes
No software agent required to install or maintain	Monitors PERC and direct-attached storage (DAS)
Non-intrusive to software environment	Monitors NIC and CNA health, link status, and performance
OS and hypervisor agnostic	Provides informative e-mail alerting, even if the operating system is down
Uniform hardware monitoring and update procedures across multiple OS types and hypervisors	Monitors hardware, firmware and BIOS inventory and settings

Dell OpenManage Essentials

Dell OpenManage Essentials is the latest console for monitoring the status of Dell servers, storage and switches. OpenManage Essentials is an easy-to-install, one-to-many, management console designed to help IT administrators simplify and automate the most essential management tasks. OpenManage Essentials provides a simple migration path for customers who are currently using Dell IT Assistant.

OpenManage Essentials (OME)	OME improvements over IT Assistant
Monitors health status and events for Dell PowerEdge servers, EqualLogic™ and PowerVault™ MD series storage and PowerConnect™ switches	Includes agent-free health status and SNMP alerting for PowerEdge servers with iDRAC7 and Lifecycle Controller, as well as simplified alert action definition and activation, and supports monitoring EqualLogic storage and PowerConnect switches. Supports agent based BIOS, firmware and driver updates for PowerEdge servers. Agent-free updating will be available in 2H 2012.
Provides hardware-level control and management for PowerEdge servers, blades and internal storage arrays	Allows for a simplified server patch process, multi-site hardware patching (through integration with Repository Manager) and compliance-driven/detected deviation
Allows hardware control of Microsoft Windows, Linux, VMware, Hyper-V, and XenServer environments	Has improved monitoring functionality for VMware environments and includes monitoring functionality for Citrix XenServer environments
Enables deeper management and control of Dell blade chassis, EqualLogic and PowerVault MD series storage, and PowerConnect switches through context-sensitive links and the launch of their respective element-management tools	Supports EqualLogic storage and PowerConnect switches
Links or integrates with the following Dell solutions: • Dell Repository Manager—allows precise control of hardware updates • OpenManage Power Center—optimizes power consumption of your servers • Dell KACE 1000 Management Appliance—communicates Dell server, storage and switch health status alerts to the KACE K1000 service desk • Offers Dell ProSupport customers new proactive management support, Dell Integrated Support service, to isolate and speed resolution of issues and increase infrastructure uptime.	Interfaces with many additional value-added services and solutions
Provides easy-to-use and low-touch maintenance	Has a modern look and feel, quick GUI responsiveness, supports a remote database during install and provides a simplified upgrade to a remote database

Power management

With the launch of Dell PowerEdge 12th generation servers, Dell offers Dell OpenManage Power Center—a simple and effective power management console. OpenManage Power Center provides a management platform to collect, sum, and aggregate power usage across rack, row, and room with the ability to customize power-reduction policies that can help maximize real-time power usage. Dell OpenManage Power Center leverages Intel Node Manager instrumentation built in to every Dell PowerEdge server.

Monitored devices	PDU monitored power (alternate)	Direct power monitoring (limited)	Direct power monitoring and capping (full capability)
New generation of PowerEdge servers*	Yes	Yes, standard	Yes with iDRAC7 Enterprise
Previous generation of PowerEdge racks and towers	Yes	Yes with redundant hot-plug power supply	Not supported
PowerEdge R210 II, T110 II	Yes	Not supported	Not supported
PowerEdge C, PowerConnect, Dell EqualLogic, previous-generation Dell servers, HP, IBM	Yes	Not supported	Not supported

*Power monitoring is supported on all blade servers and higher-end tower and rack servers (R620, R720, R720xd, R820) that have PMBus-enabled PSUs. Power monitoring is supported on the R320, R420, R520, T320, and T420 servers if they have hot-plug power supplies.

Quick Resource Locator

A useful feature included with Dell PowerEdge 12th generation servers is the Quick Resource Locator (QRL)—a model-specific Quick Response (QR) code that is located inside server chassis cover. A QRL code allows you to:

- View step-by-step videos, including overviews of system internals and externals, as well as detailed, concise, task-oriented videos and installation wizards
- Locate reference materials, including searchable owner's manual content, LCD diagnostics, and an electrical overview
- Look up your service tag so you can quickly gain access to your specific hardware configuration info and warranty information
- Contact Dell directly (by link) to get in touch with technical support and sales teams and provide feedback to Dell

These codes provide an easy way to retrieve the critical support information you need when you need it, making you more efficient and effective in managing your hardware. Use your smartphone to access the Dell QRL app to learn more about a server. Try the following QRL code to learn more about the R720 rack server.

Additional resources

This transition guide only provides an overview of the new PowerEdge systems and their supported features. For more detailed system information, please see these additional resources:

- System information on Dell.com/PowerEdge
- System manuals on Support.Dell.com/Manuals
- Energy Smart Solution Advisor (ESSA) on Dell.com/ESSA
- PowerEdge Memory information on Dell.com/PowerEdge/Memory
- Memory tool on poweredgecpumemory.com
- Blade servers demos on Dell.com/PowerEdge
- Rack server demos on Dell.com/PowerEdge
- Technical Guides for all servers on Dell.com/PowerEdge
- Dell OpenManage systems management on Dell.com/OpenManage
- Dell PowerEdge RAID controllers on Dell.com/PERC
- Dell OpenManage Advisor Tool on Dell.com/openmanageadvisor

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