



# Dell PowerEdge R815

The Dell™ PowerEdge™ R815 is a 4-socket rack server offering AMD Opteron™ processors with up to 64 processor cores and an excellent balance of advanced manageability, memory scalability, I/O and redundancy in a space-saving 2U form factor.

## Performance-driven technology

Purpose-built to provide a reliable foundation and balanced with AMD Opteron processor technology for stability, consistency and outstanding price for performance, the Dell PowerEdge R815 is designed from the ground up for value and performance. It is an ideal platform for customers looking to maximize data center space and budget.

## Purpose-built for reliability

We have listened to our customers and built servers endowed with reliability, availability and quality. Dell's reliability promise is simple — deliver quality products that stand the test of time.

From the robust, metal hard drive carriers and organized cabling to the interactive LCD screen, dual SD hypervisor modules, and embedded diagnostics, all components are purposefully designed and built to improve server reliability and usability. Dell has developed its reliability processes by:

- Employing robust validation and testing processes for durable product design
- Verifying each supplier meets stringent quality standards
- Implementing a "one-touch" build process to ensure that one person is responsible for the entire server build, resulting in greater quality control
- Ensuring that every fully configured Dell server is tested (and re-tested) before it leaves the factory
- Introducing Unified Server Configurator (USC) which offers embedded and persistent diagnostics with no media required to help minimize downtime
- Utilizing robust and durable industrial materials to enable long product lifecycles
- Improving redundancy with each generation by adding features such as dual internal failsafe SD modules to provide failover at the hypervisor level

In addition to these quality measures, all PowerEdge servers are designed with external ports, power supplies, and LED lights or LCD screens in the same location for a more efficient and familiar user experience, as well as easy installation and deployment.

## Efficient infrastructure

Limitations on space, power, and cooling capacity combined with rising energy costs present enormous challenges for IT. Dell PowerEdge servers are made to deliver energy efficiency as a design standard while helping to meet the performance and budget goals your

infrastructure requires. Energy-efficient system design built with Energy Smart technologies such as power capping, power inventory, and power budgeting help to better manage power within your specific environment.

Efficient fans are included in the PowerEdge R815 chassis, which spin in accordance with server workload demands. In addition, the internal shrouding and logical layout of the internal components aids with airflow direction, helping to keep the server cool. The PowerEdge R815 also includes power-management features such as volt regulators, power-regulating processors, and an interactive LCD screen for access to power consumption information.

## Simplified systems management, without compromise

The Dell OpenManage™ systems management portfolio includes Integrated Dell Remote Access Controller 6 (iDRAC6). This embedded feature helps IT administrators 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 installed.

OpenManage iDRAC with Lifecycle Controller integrates and connects to leading third-party systems management solutions (such as those from Microsoft, VMware, and BMC Software), so users can maintain a single point of control and capitalize on an existing systems management investment. OpenManage simplifies the lifecycle of deploying, updating, monitoring, and maintaining Dell PowerEdge servers.

Ideal for virtualization, medium-sized databases, high-performance computing, and other highly threaded application implementations.

Feature	PowerEdge R815 Technical Specification	
Form factor	2U rack	
Processors	AMD Opteron™ 6100, 6200 and 6300 series processors	
Processor Sockets	4	
Frontside bus or HyperTransport	HyperTransport-3 Links	
Cache	L2: 512K/core L3: 16MB	
Chipset	AMD (SR5650, SR5670 and SP5100)	
Memory <sup>1</sup>	Up to 512GB (32 DIMM Slots): 1GB/2GB/4GB/8GB/16GB/32GB up to 1600MT/s	
I/O slots	6 PCIe 2.0 slots + 1 storage slot: Five x8 slots One x4 slot One x4 storage slot	
RAID controllers	<b>Internal controllers:</b> PERC H200 (6Gb/s) PERC H700 (6Gb/s) with 512MB battery-backed cache; 512MB, 1GB Non-Volatile battery-backed cache External HBAs (non-RAID): 6Gb/s SAS HBA SAS 5/E HBA LSI2032 PCIe SCSI HBA	<b>External controllers:</b> SAS 5/E with 512MB battery-backed cache PERC H800 (6Gb/s) with 512MB of battery-backed cache; 512MB, 1GB Non-Volatile battery-backed cache PERC 6/E with 256MB or 512MB of battery-backed cache
Drive bays	Up to six 2.5" hot-plug SATA SSD, SAS, nearline SAS, or SATA drives	
Maximum Internal Storage <sup>1</sup>	Up to 6TB	
Hard drives	Hot-plug hard drive options: 2.5" SAS SSD, SATA SSD, SAS (15K, 10K), nearline SAS (7.2K), SATA (7.2K), SAS 512e (15K)	
Communications	Intel® 10GBase-T Copper Single Port NIC, PCI-E x8 Intel Single Port Server Adapter, 10Gigabit, SR Optical, PCI-E x8 Broadcom® BMC57710 10Base-T Copper Single Port NIC, PCI-E x8 Broadcom 10GbE NIC, Broadcom Dual Port 10GbE SFP+ Intel Gigabit ET Dual Port Server Adapter Intel Gigabit ET Quad Port Server Adapter Brocade® CNA Dual port adapter Emulex® CNA iSCSI HBA stand up adapter OCE10102-IX-D Emulex CNA iSCSI HBA stand up adapter OCE10102-FX-D	<b>Optional add-in HBAs:</b> QLogic® QLE 2462 FC4 Dual Port 4 Gbps Fiber Channel HBA QLogic QLE 220 FC4 Single Port 4 Gbps Fiber Channel HBA QLogic QLE 2460 FC4 Single Port 4 Gbps Fiber Channel HBA QLogic QLE2562 FC8 Dual-channel HBA, PCIe 2.0 x4 QLogic QLE2560 FC8 Single-channel HBA, PCIe 2.0 x4 QLogic QLE2660 FC16 Single-channel HBA, PCIe 3.0 x4 QLogic QLE2662 FC16 Dual-channel HBA, PCIe 3.0 x4 Emulex LPe-1150 FC4 Single Port 4 Gbps Fiber Channel HBA, PCIe x4 Emulex LPe-11002 FC4 Dual Port 4 Gbps Fiber Channel HBA, PCIe x4 Emulex LPe-12000 FC8 Single Port 4 Gbps Fiber Channel HBA, PCIe 2.0 x4 Emulex LPe-12002 FC8 Dual Port 4 Gbps Fiber Channel HBA, PCIe 2.0 x4 Brocade FC4 and 8GB HBAs
Power supplies	One hot-pluggable non-redundant 1100W power supply	Two hot-pluggable redundant 1100W power supplies
Availability	Hot-plug hard drives, hot-plug redundant power, dual SD modules, ECC memory, interactive LCD screen	
Video	Matrox® G200eW with 8MB memory	
Remote management	iDRAC6 Express (standard), iDRAC6 Enterprise, and vFlash media (upgrade optional)	
Systems management	Dell OpenManage™ BMC, IPMI 2.0 compliant Unified Server Configurator Lifecycle Controller enabled: iDRAC6 Express, optional iDRAC6 Enterprise, and vFlash media Microsoft® System Center Essential (SCE) 2010 v2	
Rack support	ReadyRails™ sliding rails with optional cable management arm for 4-post racks (optional adapter brackets required for threaded hole racks)	
Operating systems	Microsoft Windows Server® 2012 Microsoft Windows Server 2008 SP2, x86/x64 (x64 includes Hyper-V®) Microsoft Windows Server 2008 R2 SP1, x64 (includes Hyper-V) Microsoft Windows® HPC Server 2008 R2 Novell® SUSE® Linux Enterprise Server Red Hat® Enterprise Linux® Oracle® Solaris™	<b>Virtualization options:</b> Citrix® XenServer® VMware® vSphere® and ESXi™ Red Hat Enterprise Virtualization®  For more information on the specific versions and additions, visit <a href="http://Dell.com/OSsupport">Dell.com/OSsupport</a> .
Featured database applications	Microsoft SQL Server® solutions (see <a href="http://Dell.com/SQL">Dell.com/SQL</a> ) Oracle database solutions (see <a href="http://Dell.com/Oracle">Dell.com/Oracle</a> )	

<sup>1</sup> GB means 1 billion bytes and TB equals 1 trillion bytes; actual capacity varies with preloaded material and operating environment and will be less.

## Dell Services

Dell Services can help reduce IT complexity, lower costs, and eliminate inefficiencies by making IT and business solutions work harder for you. The Dell Services team takes a holistic view of your needs and designs solutions for your environment and business objectives while leveraging proven delivery methods, local talent, and in-depth domain knowledge for the lowest TCO.

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

