Dell PowerEdge R610

The Dell™ PowerEdge™ R610 offers simplified management, purposeful design, and energy efficiency combined in a rack server that can help you better manage your enterprise.

Strong IT Foundation

The Dell PowerEdge R610 is a key building block for today's data center. Designed for versatility and high performance, it provides many of the virtualization, system management, and energy-efficiency features you need now and the scalability necessary to change as your business grows. This general purpose Intel® processor-based 2-socket 1U server is ideal for corporate data centers and remote sites that require a dense, highly available single- or dual-processor server at an excellent value.

Purposeful Design

The PowerEdge R610 follows the 11th generation PowerEdge portfolio specifications and features the same system design commonality and reliability true to the entire portfolio. All 11th generation servers are designed to make the experience easier. We put all external ports, power supplies, LCD screens, and LED lights in the same location for familiar experience as well as easy installation and deployment.

Robust, metal hard drive carriers and organized cabling are designed to help improve component access and airflow across the server. The PowerEdge R610 provides an interactive LCD screen or LED display positioned on the front of the server for ease of monitoring and troubleshooting condition of the server.

Enhanced Virtualization

Featuring Intel® Xeon® processor-based architecture, embedded hypervisors, and expanded memory footprint and I/O, the Dell PowerEdge R610 delivers exceptional overall system performance and significant virtual machine-per-server capacity versus the previous generation. With optional factory-integrated virtualization capabilities, you get tailored solutions—built with the latest technologies from Dell and our trusted partners—which allow you to streamline deployment and simplify virtual infrastructures. Choose your hypervisor from market leaders such as VMware®, Citrix®, and Microsoft®, and enable virtualization with a few mouse clicks.

Energy-Optimized Technologies

Dell's advanced thermal control helps optimize performance while minimizing system power consumption, ultimately driving energy efficiency across our latest core data center servers. These enhancements, over previous generations, include efficient power supply units right-sized for system requirements, improved system-level design efficiency, policy-driven power and thermal management, and highly efficient standards-based Energy Smart components. Dell's advanced thermal control is designed to deliver optimal performance at minimum system and fan power consumption resulting in our quietest mainstream 1U servers to date.

Simplified Systems Management

With the optional advanced embedded systems management capabilities of Lifecycle Controller, Dell provides comprehensive enterprise class manageability already on the motherboard. Lifecycle Controller is delivered as part of the optional iDRAC Express or iDRAC Enterprise in the PowerEdge R610. The Lifecycle Controller helps to simplify administrator tasks by performing a comprehensive set of provisioning functions such as system deployment, system updates, hardware configuration and diagnostics from a single intuitive interface called Unified Server Configurator (USC) in a pre-OS environment. This helps eliminate the need to use and maintain multiple pieces of disparate CD/DVD media.

Also part of the Dell OpenManage™ portfolio is the Dell Management Console which is included with every Dell server and provides IT administrators with a consolidated console view of their IT infrastructure.

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.

Inspired by customer feedback, the Dell PowerEdge R610 server is engineered to simplify data center operations, improve energy efficiency, and lower total cost of ownership.

Feature	Technical Specification	
Form Factor	1U rack	
Processors	Quad-core or six-core Intel® Xeon® processors 5500 and 5600 series	
Processor Sockets	2	
Front Side Bus or HyperTransport	Intel® QuickPath Interconnect (QPI)	
Cache	4MB and 8MB	
Chipset	Intel® 5520	
Memory[1]	Up to 192GB (12 DIMM slots): 1GB/2GB/4GB/8GB/16GB DDR3 up to 1333MHz	
I/O Slots	**2 PCIe G2 slots + 1 storage slot:** Two x8 slots One storage x4 slot	
RAID Controller	**Internal:** PERC H200 (6Gb/s) PERC H700 (6Gb/s) with 512MB battery-backed cache; 512MB, 1GB Non-Volatile battery-backed cache SAS 6/iR PERC 6/i with 256MB battery-backed cache	**External:** 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 **External HBAs (non-RAID):** 6Gbps SAS HBA SAS 5/E HBA LSI2032 PCIe SCSI HBA
Drive Bays	Internal hard drive bay and hot-plug backplane. Up to six 2.5" SAS, or SSD Drives	
Maximum Internal Storage	Up to 12TB	
Hard Drives[1]	**Hot-plug Hard Drive Options:** 2.5" SAS SSD, SATA SSD, SAS (10K, 15K), nearline SAS (7.2K), SATA (7.2K)	
Communications	Two dual port embedded Broadcom® NetXtreme® II 5709c Gigabit Ethernet NIC with failover and load balancing. Optional 1GBe and 10GBe add-in NICs Broadcom® NetXtreme® II 57711 Dual Port Direct Attach 10Gb Ethernet PCI-Express Network Interface Card with TOE and iSCSI Offload Intel® Gigabit ET Dual Port Server Adapter and Intel® Gigabit ET Quad Port Server Adapter Dual Port 10GB Enhanced Intel Ethernet Server Adapter X520-DA2 (FCoE Ready for Future Enablement) Brocade® CNA Dual-port adapter Emulex® CNA iSCSI HBA stand up adapter OCE10102-IX-D Emulex® OCE10102-IX-DCNA iSCSI HBA stand-up adapter **Optional Add-In HBA's:** Brocade® 8 GB HBAs	
Power Supply	Two hot-plug high-efficient 502W Energy Smart PSU or two hot-plug 717W High Output PSUs **Uninterruptible Power Supplies:** 1000W-5600W 2700W-5600W High Efficiency Online Extended Battery Module (EBM) Network Management Card	
Availability	DDR3 memory; ECC; hot-plug hard drives; optional hot-plug redundant power supplies; dual embedded NICs with failover and load balancing support; optional PERC6/i integrated daughtercard controller with battery-backed cache; hot-plug redundant cooling; tool-less chassis; fibre and SAS cluster support; validated for Dell/EMC SAN	
Video	Integrated Matrox® G200, 8MB shared video memory	
Remote Management	iDRAC6 Enterprise (optional)	
Systems Management	Dell™ OpenManage™	
Embedded Hypervisor	Optional Embedded SD Media	
Rack Support	ReadyRails™ sliding rails with optional cable management arm for 4-post racks (optional adapter brackets required for threaded hole racks); ReadyRails™ static rails for 2-post and 4-post racks	
Operating Systems	Microsoft® Windows® Small Business Server 2011 Microsoft® Windows® Small Business Server 2008 Microsoft® Windows Server® 2008 SP2, x86/x64 (x64 includes Hyper-V™) Microsoft® Windows Server® 2008 R2, x64 (includes Hyper-V™ v2) Microsoft® Windows® HPC Server 2008 R2 Novell® SUSE® Linux® Enterprise Server Red Hat® Enterprise Linux® Oracle® Solaris™ **Virtualization Options:** Citrix® XenServer™ VMware® vSphere™ 4.1 (including VMware ESX® 4.1 or VMware ESXi™ 4.1) For more information on the specific versions and additions, visit www.dell.com/OSsupport.	
Featured Database Applications	Microsoft® SQL Server® solutions (see Dell.com/SQL) Oracle® database solutions (see Dell.com/Oracle)	

[1] GB means 1 billion bytes and TB equals 1 trillion bytes; actual capacity varies with preloaded material and operating environment and will be less.

OEM Ready Models Available

OEM Ready platforms are grab-and-go products for OEM customers delivering a fast and simple path to a custom-branded solution. For more information, please visit dell.com/OEM.

Learn more at Dell.com/PowerEdge