Dell PowerEdge R910

The Dell™ PowerEdge™ R910 provides performance and reliability in a scalable 4U, four-socket server allowing large workload consolidation or max virtualization machine density.

With Intel® Advanced RAS (Reliability, Availability, Serviceability) Technology, internal dual SD modules for hypervisor redundancy, including design and component quality paired with Dell Lifecycle Controller, technicians avoid having to load diagnostics from other media. Dell built-in reliability saves valuable time and minimizes downtime for mission-critical workloads.

Purpose built for reliability

The PowerEdge R910 is built for reliability through factory integration and validation. The Dell "one-touch" process is designed to ensure one person is responsible for the entire server build, resulting in greater quality control. Every fully configured Dell server is tested (and re-tested) before it leaves the factory providing customers a fully configured and tested ready-to-deploy server.

Internal Dual SD module provides failover at the hypervisor; this feature was designed based on customer reliability feedback. Dell listened and delivered.

With Intel Advanced RAS Technology features never before seen in an industry-standard server, the PowerEdge R910 can automatically monitor, report, and recover from hardware errors to maintain data integrity and keep mission-critical services online.

Efficient infrastructure

Performance resources, power efficiency, I/O, and memory scalability are essential to maximizing workload in the data center.

The PowerEdge R910 delivers the highest performing Intel® Xeon® processors, up to 1TB of DDR3 memory, and 2 x 10Gb Optional LOM with 10 PCIe slots to help consolidate inefficient workloads.

Energy-efficient system design built with Energy Smart technologies includes power management features enabling power capping, power inventory, and power budgeting within your specific environment. Logical component layout of the internal components aids with airflow direction, helping to keep the server cool.

Intelligent platforms, connected foundations

The PowerEdge R910 follows the eleventh generation PowerEdge behavioral specifications with the same system design commonality and usability true to the entire portfolio. All eleventh generation servers are designed to make the user experience easier while saving time and money.

Dell system management solutions focus on simplicity, efficiency, cost containment and reduction, and an adherence to open standards. Our systems management solutions are complemented by, connected to, and integrated with third-party offerings, thereby delivering comprehensive solutions across the complete solutions stack.

The Lifecycle Controller is a chip that is integrated on the server. It helps to simplify administrator tasks by performing a complete set of provisioning functions such as system deployment, system updates, hardware configuration, and diagnostics in a pre-OS environment—all from a single, intuitive interface called the Unified Server Configurator (USC).

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.

The PowerEdge R910 is easy to deploy, better to manage and maintain. Designed to save customers time and money to focus on what matters most, their people and business.

Feature	PowerEdge R910 Technical Specification	
Form Factor	4U rack	
Processors	Eight-core Intel® Xeon® processor 7500 series Ten-core Intel Xeon E7-4800 and E7-8800 product family	
Processor Sockets	4	
Front Side Bus or HyperTransport	Intel QuickPath Interconnect (QPI)	
Cache	Up to 30MB	
Chipset	Intel E7510	
Memory[1]	Up to 2TB (64 DIMM slots): 1GB/2GB/4GB/8GB/16GB/32GB DDR3 up to 1333MT/s	
I/O Slots	**Up to 10 PCIe 2.0 slots + 1 storage slot:** **Standard:** 7 PCIe 2.0 slots (2 x4, 4 x8, 1 x16) Two x4 slots Four x8 slots One x16 slot	**Optional:** 10 PCIe Gen2 Six x4 slots Four x8 slots One storage x8 slot
RAID Controller	**Internal controllers:** PERC H200 (6Gb/s) PERC H700 (6Gb/s) with 512MB battery-backed cache; 512MB, 1GB Non-Volatile battery-backed cache **External controllers:** PERC H800 (6Gb/s) with 512MB of battery-backed cache; 512MB, 1GB Non-Volatile battery-backed cache	**External HBAs (non-RAID):** 6Gbps SAS HBA SAS 5/E HBA LSI2032 PCIe SCSI HBA
Drive Bays	Up to sixteen hot-plug 2.5" SATA SSD, SAS, nearline SAS, or SATA drives	
Maximum Internal Storage[1]	Up to 16TB	
Hard Drives	**Hot-plug hard drive options:** 2.5" SATA SSD, SAS (15K, 10K), nearline SAS (7.2K), SATA (7.2K) **Solid state storage cards:** Fusion-io® 160GB ioDrive PCIe solid state storage card Fusion-io 640GB ioDrive Duo PCIe solid state storage card Fusion-io 320GB ioDrive Mono PCIe solid state storage card	Fusion-io 640GB ioDrive Mono PCIe solid state storage card Fusion-io 1.28TB ioDrive Mono PCIe solid state storage card
Communications	**Embedded NICs:** 1GbE or 10Gb embedded NIC options with iSCSI offload Broadcom® 5709c 4-port (4 x 1GbE) Embedded NIC or Broadcom 57711 4-port (2 x 10GbE + 2 x 1GbE) Embedded NIC + Broadcom 5709c **Optional NICs:** Broadcom 57710 Single Port 10GbE NIC, Copper CAT6 PCIe-8 Intel DA 10GbE NIC, Dual Port, Optical, PCIe-8 Intel 10GbE Single Port 10GbE NIC, Copper, PCIe-8 Broadcom NetXtreme® II 5709 Gigabit NIC with TOE and iSOE, Quad Port, Copper, PCIe-4, (Low Profile option) Broadcom 5709 Dual Port 1GbE NIC with TOE PCIe-4, (Low Profile option)	Broadcom 5709 Dual Port 1GbE NIC with TOE iSCSI, PCIe-4, (Low Profile option) Broadcom NetXtreme II 57711 10GbE NIC with TOE and iSOE, Dual Port, SFP+, PCIe-8 Intel Gigabit ET NIC, Dual Port, Copper, PCIe-4, (Low Profile option) Intel Gigabit ET NIC, Quad Port, Copper, PCIe-4, (Low Profile option) 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 Brocade CNA BR1020 QLogic QLE2660 FC16 Single-channel HBA, PCIe 3.0 x4 QLogic QLE2662 FC16 Dual-channel HBA, PCIe 3.0 x4
Power Supply	Hot-plug redundant PSUs: 4 x 750W (Energy Smart PSU) (or) 4 x 1100W (High Output PSU)	
Availability	Hot-plug hard drives, hot-plug redundant power, hot-plug redundant fans, ECC memory, internal dual SD module, redundant cooling	
Video	Matrox® G200 with 8MB memory	
Remote Management	iDRAC6 Express	iDRAC 6 Enterprise with vFlash media optional
Systems Management	Dell™ OpenManage™ BMC, IPMI 2.0 compliant Unified Server Configurator	Lifecycle Controller enabled through optional iDRAC6 Express, iDRAC6 Enterprise, and vFlash media Microsoft® System Center Essential (SCE) 2010 v2
Embedded Hypervisor	Optional Dual-Media Redundant Hypervisor	
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 2012 Essentials Microsoft Windows Server 2008 SP2, x86/x64 (x64 includes Hyper-V®) Microsoft Windows Server 2008 R2 SP1, x64 (includes Hyper-V v2) Microsoft Windows® HPC Server 2008 Novell® SUSE® Linux Enterprise Server Red Hat® Enterprise Linux®	**Virtualization options:** VMware® vSphere® ESX™ and ESXi™ Citrix® XenServer® Red Hat Enterprise Virtualization® For more information on the specific versions and additions, visit 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