



# Dell PowerEdge R810

The Dell™ PowerEdge™ R810 provides performance and rack density in a scalable 2U, two- or four-socket server, allowing workload consolidation or high virtualization machine density.

FlexMem Bridge Technology delivers compute resources; more memory per processor solves growing memory demand needs for database and virtualization applications.

Built with highly reliable Intel® Xeon® 7500 and 6500 series processors, high-capacity DDR3 memory, and enterprise-class manageability, the PowerEdge R810 provides outstanding price for performance with excellent memory capacity per processor.

## Purposeful Design, Uncommon Reliability

The PowerEdge R810 is built for reliability, from new Intel Advanced RAS (Reliability, Availability, Serviceability) features and dual internal SD modules to embedded diagnostics and industrial-quality materials. Dual internal SD modules provide failover capability for the embedded hypervisor; this feature was designed based on customer reliability feedback. Dell listened and delivered.

With the Dell Lifecycle Controller, persistent diagnostics eliminate technicians having to load diagnostics from media, minimizing downtime. Every fully configured Dell server is tested (and re-tested) before it leaves the factory. Our “one-touch” process is designed to ensure one person is responsible for the entire server build, resulting in greater quality control.

## Efficient Infrastructure

The PowerEdge R810 follows the 11th Generation PowerEdge behavioral specifications with the same system design commonality and usability true to the entire portfolio. All 11th Generation servers are designed to make the user experience easier while saving time and money.

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 Foundation

FlexMem Bridge technology scales memory capacity allowing two Intel Xeon 7500 or 6500 Series Processors access to all 32 Memory DIMM Slots delivering more memory resources for outstanding application

performance. This patent-pending Dell innovation allows customers to scale memory to take full advantage of the resources that matter most.

Dell system management solutions focus on simplicity, efficiency, cost containment and reduction, and an adherence to open standards. Our solutions are complemented by, connected to, and integrated with 3rd-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 R810 is designed with a purpose—to make the customer’s life easier. PowerEdge gives you the confidence to do your job.

Feature	Technical Specification
Form Factor	2U Rack
Processors	Up to Eight-Core Intel® Xeon® processor 7500 and 6500 series
Processor Sockets	2 or 4
Front Side Bus or HyperTransport	Intel® QuickPath Interconnect (QPI)
Cache	Up to 24MB
Chipset	Intel® 7500 Chipset
Memory <sup>1</sup>	Up to 512GBs (32 DIMM slots) 1GB/2GB/4GB/8GB/16GB DDR3 1066MHz
I/O Slots	6 PCIe G2 slots: Five x8 slot One x4 slot One storage x4 slot
RAID Controller	<p><b>Internal Controllers:</b> PERC H200 (6Gb/s) PERC H700 (6Gb/s) with 512MB battery-backed cache; 512MB, 1GB Non-Volatile battery-backed cache</p> <p><b>External Controllers:</b> 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 <b>External HBAs (non-RAID):</b> 6Gbps SAS HBA SAS 5/E HBA LSI2032 PCIe SCSI HBA</p>
Drive Bays	<b>Hot-Swap Option Available:</b> Up to six 2.5" SAS or SATA drives, including SATA SSD
Maximum Internal Storage	Up to 3TB
Hard Drives <sup>1</sup>	<p>2.5" SATA SSD: 50GB, 100GB 2.5" SAS HDD (15K): 73GB, 146GB 2.5" SAS HDD (10K): 146GB, 300GB, 600GB 2.5" (7.2K) SATA HDD: 160GB 2.5" (7.2K) Nearline SAS HDD: 500GB</p> <p><b>Solid State Storage Cards:</b> Fusion-io® 160IDSS—160GB ioDrive PCIe solid state storage card Fusion-io® 640IDSS—640GB ioDrive Duo PCIe solid state storage card</p>
Communications	<p>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 w/TOE &amp; iSOE, Quad Port, Copper, PCIe-4 Broadcom® 5709 Dual Port 1GbE NIC w/TOE PCIe-4, Low Profile Broadcom® 5709 Dual Port 1GbE NIC w/TOE iSCSI, PCIe-4, Low Profile Broadcom® 5709 Dual Port 1GbE NIC w/TOE iSCSI, PCIe-4 Broadcom® NetXtreme II 5709 Gigabit NIC w/TOE &amp; iSOE, Quad Port, Copper, PCIe-4, Low Profile Broadcom® 5709 Dual Port 1GbE NIC w/TOE PCIe-4</p> <p>Broadcom® NetXtreme® II 57711 10GbE NIC w/TOE &amp; iSOE, Dual Port, SFP+, PCIe-8 Intel® Gigabit ET NIC, Dual Port, Copper, PCIe-4, Low Profile Intel® Gigabit ET Dual Port NIC, PCIe-4 Intel® Gigabit ET NIC, Quad Port, Copper, PCIe-4, Low Profile Broadcom® 5709 Dual Port 1GbE NIC w/TOE PCIe-4, Low Profile Intel® Gigabit ET Quad Port NIC, PCIe-4</p> <p><b>Embedded Network Controllers:</b> Emulex® OCE10102-FX-D CNA Standup HBA adapter Emulex® OCE10102-IX-D CNA iSCSI HBA stand up adapter</p>
Power Supply	Two redundant 1100W hot-plug power supplies
Availability	Hot-plug hard drives, Hot-plug redundant power, ECC memory, Dual Internal SD Module
Video	Matrox® G200eW w/ 8MB memory
Remote Management	iDRAC6 Express iDRAC 6 Enterprise (optional) iDRAC 6 Enterprise vFlash (optional)
Systems Management	BMC, IPMI2.0 compliant Dell™ OpenManage™ featuring Dell Management Console Unified Server Configurator Lifecycle Controller enabled via optional iDRAC6 Express, iDRAC6 Enterprise, and vFlash
Rack Support	ReadyRails™ sliding rails with optional cable management arm for 4-post racks (optional adapter brackets required for threaded hole racks)
Operating Systems	<p>Microsoft® Windows® Essential 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 Novell® SUSE® Linux Enterprise Server Red Hat® Enterprise Linux <b>Optional Embedded Hypervisors:</b> Citrix® XenServer™ VMware® vSphere™ 4.1 (including VMware ESX® 4.1 or VMware ESXi™ 4.1)</p> <p>For more information on the specific versions and additions, visit <a href="http://www.dell.com/OSsupport">www.dell.com/OSsupport</a>.</p>
Featured Database Applications	<p>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>)</p>

<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.

## 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](http://dell.com/OEM).

Customer-Inspired, Intelligent Design at [www.Dell.com/PowerEdge](http://www.Dell.com/PowerEdge)

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