Dell PowerEdge R520

A powerful, 2-socket rack server, the Dell™ PowerEdge™ R520 delivers balanced performance and storage expandability for data-intensive applications.

The Dell PowerEdge R520 is a 2-socket, 2U rack-mount server offering an excellent balance of processing power, storage capacity, and redundancy. The R520's price per performance, configuration flexibility, and headroom for growth make it highly appealing for consolidation and virtualization, web hosting, for use as a medium-size mail server, or as a general-purpose server. The R520 is optimized for running a wide range of core applications, such as small-medium mail server, web server, small-scale hosting, and database server. Consistent worldwide support makes it highly appealing to larger businesses and organizations with distributed offices.

Designed for demanding workloads

The extensive memory, storage, and I/O capacities of the R520 make it ideal for consolidation and virtualization. Delivering the performance of two Intel® Xeon® E5-2400 processors and complemented by up to twelve DIMMs, up to four PCIe 3.0-enabled slots and up to eight internal hard drives, the R520 delivers balanced performance. With built-in redundancy, the R520 is a trustworthy platform for your business-critical databases and applications. The dense form factor and innovative systems management of the R520 allow you to save space and to use your IT administrator's time efficiently.

Manage and secure your data

Features that protect your business data and keep the server running are essential. The extensive storage capacity of the R520 can be protected with both hardware RAID controllers and software solutions to protect your data and ensure that it is readily available. Built-in reliability, availability, and serviceability (RAS) features such as hot-pluggable hard drives and power supplies minimize the need to disrupt production work to take a server offline in the event of a component failure. Redundant,

failsafe hypervisors also add an additional layer of protection for virtualized environments.

The PowerEdge server line

The PowerEdge family is engineered with the right combination of features and performance scalability to handle tough workloads for both large and small data center environments.

The Dell OpenManage™ systems management portfolio includes integrated Dell Remote Access Controller (iDRAC) with Lifecycle Controller. 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. OpenManage also integrates and connects to leading third-party systems management solutions you may already own, so you can maintain your single point of control and capitalize on your existing investment. OpenManage simplifies the lifecycle of deploying, updating, monitoring, and maintaining your Dell PowerEdge servers.

PowerEdge R520

- Up to 12 DIMMs with RAS

- PCIe 3.0-enabled expansion slots

- 8 x 3.5-inch drive bays with LCD diagnostic

- Powered by Intel Xeon E5-2400 processors

Feature	PowerEdge R520 technical specification	
Form factor	2U rack	
Processors	Intel® Xeon® processor E5-2400 product family	
Processor sockets	2	
Internal interconnect	Intel QuickPath Interconnect (QPI) link: 6.4GT/s; 7.2GT/s; 8.0GT/s	
Cache	2.5MB per core; core options: 4, 6, 8	
Chipset	Intel C600 series	
Memory[1]	Up to 384GB (12 DIMM slots): 2GB/4GB/8GB/16GB/32GB DDR3 up to 1600MT/s	
I/O slots	**4 PCIe slots:** With two processors: • One x16 PCIe slot with x16 bandwidth, 3.0, half-length, half-height • One x16 PCIe slot with x8 bandwidth, 3.0, full-length, full-height • Two x16 PCIe slots with x8 bandwidth, 3.0, half-length, full-height	With one processor: • One x8 PCIe slot with x4 bandwidth, 2.0, half-length, half-height • One x16 PCIe slot with x8 bandwidth, 3.0, full-length, full-height • Two x8 PCIe slots with x4 bandwidth, 3.0, half-length, full-height
RAID controller	**Internal controllers:** PERC S110 (SW RAID) PERC H310 PERC H710 PERC H710P	**External HBAs (RAID):** PERC H810 **External HBAs (non-RAID):** 6Gbps SAS HBA
Drive bays	Up to eight 3.5" or 2.5" hot-plug SAS, SATA or SSD	
Maximum internal storage[1]	Up to 24TB	
Hard drives	**Hot-plug hard drive options:** 2.5" SAS SSD, SATA SSD, SAS (15K, 10K) 3.5" SAS (15K), nearline SAS (7.2K), SATA (7.2K) Self-encrypting drives available	
Embedded NIC	Broadcom® 5720 Dual Port 1Gb LOM	
I/O adapter options	**1Gb Ethernet:** Broadcom 5720 Dual Port 1Gb NIC Broadcom 5720 Quad Port 1Gb NIC Intel I350 Dual Port 1Gb stand-up adapter Intel I350 Quad Port 1Gb stand-up adapter **10Gb Converged Ethernet:** Brocade® BR1020 Dual Port 10Gb CNA QLogic® QLE8262 Dual Port 10Gb DA/SFP+ Broadcom 57810S Dual Port 10Gb Base-T CNA Broadcom 57810S Dual Port 10Gb DA/SFP+ CNA	**10Gb Ethernet:** Intel X520 Dual Port 10Gb DA/SFP+ server adapter Intel X540 Dual Port 10Gb Base-T adapter **FC8/FC4 HBA:** QLogic QLE2460 4Gb Single Port FC HBA QLogic QLE2462 4Gb Dual Port FC HBA QLogic QLE2560 8Gb Single Port FC HBA QLogic QLE2562 8Gb Dual Port FC HBA Emulex® LPe-12000-E 8Gb Single Port FC HBA Emulex LPe-12002-E 8Gb Dual Port FC HBA Brocade 815 8Gb Single Port FC HBA Brocade 825 8Gb Dual Port FC HBA
Power	Titanium efficiency, hot-plug redundant 750W power supply; Platinum efficiency, hot-plug redundant 495W power supply; Silver efficiency, cabled 550W power supplies; Gold efficiency 1100W DC power supply; auto-ranging	
Availability	High-efficiency, hot-plug, redundant power supplies; DC power supply; hot-plug hard drives; TPM; dual internal SD support; fan fault tolerance; optional bezel; information tag; ECC memory, interactive LCD screen; ENERGY STAR® compliant; extended power range; switch independent partitioning	
Remote management	Basic management (default), iDRAC7 with Lifecycle Controller, iDRAC7 Express (upgrade), iDRAC7 Enterprise (upgrade), 8GB vFlash (upgrade), 16GB vFlash (upgrade)	
Systems management	IPMI 2.0 compliant OpenManage™ Essentials and Dell Management Console OpenManage Power Center Dell OpenManage Connections: • OpenManage Integration Suite for Microsoft® System Center • Dell plug-in for VMware® vCenter® • HP Operations Manager, IBM Tivoli® Netcool®, and CA Network and Systems Management (NSM)	
Rack support	• ReadyRails™ II sliding rails for toolless mounting in 4-post racks with square or unthreaded round holes or tooled mounting in 4-post threaded hole racks, with support for optional toolless cable management arm • ReadyRails static rails for toolless mounting in 4-post racks with square or unthreaded round holes or tooled mounting in 4-post threaded and 2-post (Telco) racks	
Operating systems	Microsoft® Windows Server® 2012 Microsoft Windows Server 2008 R2 SP1, x64 (includes Hyper-V® v2) Microsoft Windows® Small Business Server 2011 SUSE® Linux® Enterprise Server Red Hat® Enterprise Linux® **Vitualization options:** Citrix® XenServer™ VMware vSphere™ ESX and ESXi Red Hat Enterprise Vitualization® For more information on the specific versions and additions, visit Dell.com/OSsupport.	

[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 version available

From bezel to BIOS to packaging, your servers can look and feel as if they were designed and built by you. For more information, visit Dell.com/OEM.

Learn more at Dell.com/PowerEdge