DELL™ POWEREDGE™ 1950 SERVER



In a 1U form factor, the Dell™ PowerEdge™ 1950 delivers the right combination of computing power and redundancy in an ultra-dense chassis. With dual-processor performance, next generation manageability and platform commonality, it is ideal for edge-of-network, infrastructure, SAN front-end, thin client server and High Performance Computing Clusters (HPCC) applications.

Dell's Innovative 9th Generation PowerEdge Servers

Through innovative hardware design, software commonality and continued focus on fewer system updates, Dell's 9th generation PowerEdge servers help reduce the complexity involved in managing data, whether you are a large enterprise or a small business. These servers are designed to a Dell - developed Behavioral Specification that defines consistent hardware layout and user interaction across all server models in this and future PowerEdge generations. Plus, a shared master system with 2950 and 2900 image enables updates to BIOS, system drivers, firmware, operating systems and applications from one easy-to-copy template for simplified software management. Featuring the latest Intel® Xeon® processors, the 9th generation PowerEdge servers offer the power and performance you expect from Dell.

Dell PowerEdge 1950 Delivers Performance in a Space-Conscious Form Factor

The Dell PowerEdge 1950 server provides exceptional performance and availability for organizations that require high-powered processing capability in a space-constricted data center. The rack-dense 1U server features 64-bit, dual core Intel Xeon processors and the latest in chipset, memory and I/O technology. The result is incredible performance and scalability to handle heavy workloads today and in the future without data center sprawl.

The Dell PowerEdge 1950 includes twice the memory capacity of 8th generation servers with up to 32GB of fully-buffered DIMM memory which allows scalability and greater performance, especially in virtualized workloads. PCI-Express™ I/O slots support high performance Ethernet, RAID, InfiniBand and Fibre Channel interconnects while helping to provide investment protection for future technologies. Finally, Serial Attach SCSI (SAS) hard drives can deliver some of the highest possible performance available with the next generation storage technology while SATA drive options offer greater value for systems that rely on internal or external storage and fiber channel storage options.

Availability to Help Maximize Uptime Without Sacrificing Density

Now you don't have to compromise space for redundancy and availability. The Dell PowerEdge 1950 server maximizes redundancy with hot-plug redundant power supplies, hot-plug hard drives accessible through the front of the server and redundant cooling. It also includes dual embedded Gigabit NICs and PCI slots on separate buses for flexible expandability. Additionally, optional integrated RAID controller with battery-backed cache offers improved reliability and system uptime

Manageability for Reduced Complexity

The Dell PowerEdge 1950 server is equipped with a Baseboard Management Controller (BMC) that includes a complete set of tools that monitors server hardware, alerts you when server faults occur and enables basic remote operations. For environments with servers located in secure data centers or in sites with no IT staff, Dell offers an optional feature for PowerEdge servers, the Dell Remote Access Controller (DRAC). Operated through a Web-based graphic user interface, DRAC can enable remote access, monitoring, troubleshooting, repair and upgrades independent of the operating system status. Common software with the same family of PowerEdge 9th generation servers further helps simplify management. Plus, the Dell Behavioral Specification means one familiar platform for less complex deployment, management and serviceability as well as lower Total Cost of Ownership (TCO) over multiple generations of PowerEdge servers.



Dell PowerEdge 1950





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DELL IT INFRASTRUCTURE SERVICES

Dell brings pure execution to IT Services. The planning, implementation and maintenance of your IT infrastructure deserves nothing less. Variability in execution can compromise user productivity, IT resources and ultimately, your reputation. By leveraging our heritage of process driven excellence, Dell Services can deliver a smarter way.

We don't claim to do everything. We focus on IT infrastructure services. And we take a customer led approach, grounded in the philosophy that you know your business better than anyone. That's why Dell does not try to take key business decisions out of your hands, or lock you into more than you need. Instead, we apply our world-class process management and "no excuses" culture to deliver what customers today most need - flexibility and repeatable quality. That's pure execution. That's Pure Dell.

Assessment, Design and Implementation Services

IT departments are continually challenged to evaluate and implement new technologies. Dell's assessment, design and implementation services can restructure your IT environment to enhance performance, scalability and efficiency while helping to maximise your return on investment and minimise disruption to your business.

Deployment Services

System deployment is a necessary evil that plagues nearly every organisation. You must deploy new systems to help improve performance and meet user demand. With Dell's deployment services. we help simplify and speed up the deployment and utilisation of new systems to maximise uptime throughout your IT environment.

Asset Recovery and Recycling Services

Proper disposal, reselling and donation of computer equipment is a time-consuming task that typically falls to the bottom of many IT todo lists. Dell simplifies the end of life processes for IT equipment in a way that can maximize value for customers.

Training Services

Arm your employees with the knowledge and skills they need to be as productive as possible. Dell offers comprehensive training services which include hardware and software training, as well as PC skills and professional development classes. With Dell training you can help improve system reliability, maximise productivity and reduce end user requests and downtime.

Enterprise Support Services

With Dell, you can get maximum performance and availability of your Dell server and storage systems. Our Enterprise Support services offer proactive maintenance to help prevent problems as well as rapid response and resolution of problems when they do occur. We have built a robust global infrastructure that offers multiple levels of enterprise support for systems throughout your infrastructure. To help you get the most from your Dell systems, visit www.dell.com/ap/ services. Services vary by region.

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FEATURES	Dell™ PowerEdge™ 1950 Server
Form factor	1U rack height
Processors	Up to two Dual-Core Intel® Xeon® 5000 sequence processors with up to 3.73GHz clock
	frequency
Front side bus	5000: 667MHz or 1066MHz
Cache	5000: 2x2MB L2 per processor
Chipset	Intel 5000X
Memory	256MB/512MB/1GB/2GB/4GB Fully Buffered DIMMs (FBD) in matched pairs; 533MHz or 667MHz; 8 sockets for support up to 32GB
I/O channels	Five total: two slots on separate PCI buses with either PCI Express® riser with two 1 x 8 lane slots or PCI-X® riser with 2 x 64-bit/133MHz slot; 2x embedded Gigabit NICs; management port for DRAC 5 (optional)
Integrated controllers	PERC 5/i(optional): SAS 3.0 Gb/s RAID controller with Intel IOP333 processor and 256MB cache; SAS 5/i(base): 4 port SAS controller with ARM966 processor (does not support RAID)
Add-in RAID controller	Optional PERC 4e/DC (dual-channel PCI Express® RAID controller); Optional PERC 5/E adapter for external RAID storage
Drive bays	Two options: Two hard drive chassis with 2 x 3.5" SAS (10K/15K) or SATA (7200) drives or four hard drive chassis with 4 x 2.5" SAS (10K) drives; Peripheral bays: 1 slim optical drive bay with choice of optional CD-ROM, optional DVD-ROM ² or combo CD-RW/DVD-ROM ²
Maximum internal storage	Up to 600GB1 (with 2x 3.5" SAS HDDs)
Hard drives	2.5" SAS (10k rpm): 36GB¹ or 73GB¹ hot-plug hard drives; 3.5" SAS (10K rpm) 73GB¹, 146GB¹ or 300GB¹ hot-plug hard drives; 3.5" SAS (15K rpm) 36GB¹, 73GB¹ or 146GB¹ hot-plug hard drives; 3.5" SATA, (7.2K rpm) 80GB¹, 160GB¹ or 250GB¹ hot-plug hard drives
Internal storage	Optional bootable CD-ROM; 2 x 3.5" hot-plug SAS (10K and 15K) or SATA (7200) drives; 4 x 2.5" hot-plug 10K SAS drives
External storage	Dell PowerVault™ 22xS, PowerVault MD1000, Dell I EMC products
Tape backup options	Internal: none External: PowerVault DAT 72, 110T, 114T, 124T, 132T, and ML6000
Network interface card	Dual embedded Broadcom® NetXtreme II™ 5708 Gigabit® Ethernet NIC with fail-over and load balancing. TOE (TCPIP Offload Engine) supported on Microsoft Windows Server 2003, SP1 or higher with Scalable Networking Pack. Optional add-in NICs: Intel® PRO/1000 PT Dual Port NIC, Gigabit, Copper, PCI-E x4; Intel® PRO/1000 PT Single Port NIC, Gigabit, Copper, PCI-E x1; Intel® PRO/1000 PF Single Port NIC, Gigabit, Optical, PCI-E x4; Broadcom® NetXtreme™ 5721 Single Port Gigabit NIC, Copper, PCI-E x1; Broadcom® NetXtreme II™ 5708 Single Port Gigabit NIC w/TOE, Copper, PCI-E x4
Power supply	670W, optional hot-plug redundant power (1+1)
Availability	Hot-plug hard drives; hot-plug redundant power; redundant cooling; ECC memory; Spare Row; Single Device Data Correction (SDDC); /PERC 5/i integrated daughter card with battery-backed 256MB DDR2 cache; high availability failover cluster support; DRAC 5
Video	Embedded ATI ES1000 with 16MB memory
Remote management	Standard Baseboard Management Controller with IMPI 2.0 support; optional DRAC 5/I for advanced capabilities
Systems management	Dell OpenManage™
Rack support	4-post (Dell rack), 2-post and 3rd party Versa rails, sliding rails and Cable Management Arm
Operating systems	Microsoft® Windows® Server 2003 R2, Standard, Enterprise & Web Editions, x64 R2; Standard & Enterprise editions; Red Hat® Linux® Enterprise v4, ES EM64T, ES; SUSE® Linux® Enterprise Server 9 EM64T, SP3

- 1. For hard drives, GB means 1 billion bytes; actual capacity varies with preloaded material and operating environment and will be less.
- 2 The DVD region code can be changed up to 5 times and will then be locked so that it plays only DVD movies from the final region code selected
- 3 This term does not connote an actual operating speed of 1 Gb/sec. For high speed transmission, connection to a Gigabit Ethernet server and network

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