Dell PowerEdge 1850 Server

The dual processor Dell™ PowerEdge™ 1850 server packs some of the latest advanced features in performance, availability and manageability into an incredibly slim 1U chassis making it perfect for High Performance Computing Clusters (HPCC) as well as edge-of-network and Internet infrastructure environments.

Space-conscious, Expandable Performance

Delivering intense power and redundancy in a rack dense format, the PowerEdge 1850 server is designed to maximize computing power per square foot. In fact, as many as 42 servers can occupy less than seven square feet of data center floor space helping to enable less expensive overhead and room to grow. As a result, the PowerEdge 1850 server offers an exceptional solution for technology refreshes as well as new technology deployments.

With two Intel® Xeon™ processors (single or dual-core) and an 800MHz Front Side Bus, the PowerEdge 1850 system is designed to provide high speed data processing. Plus, the server offers up to 16GB[1] of DDR-2 memory for memory intensive applications. It also includes Intel Extended Memory 64 Technology (EM64T) to enable continued utilization of existing 32-bit technology with the capacity to incorporate 64-bit operating systems and applications in the future. With support for PCI Express™ architecture, the PowerEdge 1850 server delivers next generation I/O throughput for future high throughput peripherals.

Uncompromising Availability

In spite of its small size, the PowerEdge 1850 server is rich in high availability features. It includes hot-plug hard drives that allow you to remove and replace drives while the server is operating with a RAID controller. You can add the redundant power supply option without occupying the dual PCI slots, allowing you to retain expandability without compromising redundancy. It also provides redundant cooling fans, Memory Mirroring and redundant Network Interface Controllers. What's more, the PowerEdge 1850 server supports High Availability Clustering and Storage Area Networks so that you can scale your external storage with high availability.

Manageability

The PowerEdge 1850 system delivers optimum functionality with advanced, easy-to-use manageability features. Its SCSI hard drive carrier is compatible with all eighth generation PowerEdge rack and tower servers for enhanced data interoperability and to help minimize operational costs. Additionally, it shares common BIOS and drivers with the PowerEdge 2800 and 2850 servers making it easy to perform software upgrades and maintenance while helping to reduce Total Cost of Ownership. Plus, the standard Baseboard Management Controller with Intelligent Platform Management Interface (IPMI) 1.5 compliance means you can manage your PowerEdge 1850 remotely with any management software that supports IPMI. And the DRAC 4/I option further enhances remote manageability with continuous video, virtual floppy/CD and Active Directory integration.

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The PowerEdge 1850 server offers some of the latest performance, availability and manageability capabilities in a rack-dense 1U, dual processor server.

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DELL ENTERPRISE SERVICES

Dell Services can deliver the services you need to realize the full value of your IT investment. Complementing our award-winning products, these IT infrastructure services incorporate operational excellence, accountability and value.

By utilizing our best practices, proven processes and expertise in implementing standards-based technologies, we can help strengthen your IT infrastructure and enable you to adopt evolving technologies. Whether you need support, deployment, asset management, training, certification, planning or professional services – individually or bundled as a total solution – you can count on Dell.

Strengthening Your IT Infrastructure

Our planning services help integrate your new enterprise hardware into your existing or evolving IT infrastructure. We can provide guidance whether you're adding a single or multiple servers, storage area network or high-performance computing cluster.

We can also help you enhance the overall performance of your IT infrastructure and data center by consolidating software and hardware, developing a business continuity plan and migrating to standards-based technologies.

Simplifying Deployment

Dell simplifies implementation with comprehensive services that accelerate deployment of new hardware and IT solutions. During the initial system-build of your server, we can customize software and hardware to match your specific requirements. By helping you rapidly deploy new capabilities while minimizing disruptions, we can contribute to improved efficiencies and lower costs.

Our training services provide education and certification courses to help you better manage and use your new hardware so you can reap the full benefits of standards-based technologies.

Providing Award-Winning Service & Support

Your server and storage infrastructure is central to your business, which is why you need a partner who can help minimize downtime and keep your business-critical systems running efficiently. Our enterprise support services are designed to protect your entire enterprise or to focus on specific systems. These customizable services include hardware and software support with varied response levels, account management and remote resolution.

We can also help you enhance the performance of your data center and provide managed IT solutions and asset management services for your enterprise, desktop and notebook environments.

The Dell Enterprise Command Centers (ECC) – which utilize industry-leading technologies and tools that speed up problem resolution – efficiently route spare parts and direct expert technicians to your site.

Services vary by region. For more information, please visit www.dell.com.

FEATURES	Dell™ PowerEdge™ 1850 Server
Form factor	1U rack height
Processors	Up to two single-core 64-bit Intel® Xeon™ processors at up to 3.8GHz or up to two dual-core 64-bit Intel Xeon processors at 2.8GHz
Front side bus	800MHz
Cache	Up to 2MB L2 per processor core
Chipset	Intel E7520
Memory	256MB/12GB DDR-2 400 SDRAM; 16GB with availability of dual rank 4GB DIMMs[1]
I/O channels	Two total: two PCI-X® slots (1 x 64-bit/133MHz and 1 x 64-bit/100MHz) or two PCI Express™ slots (1 x 4 lane and 1 x 8 lane)
Drive controller	Embedded single channel Ultra320 SCSI
RAID controller	Optional single channel ROMB (PERC 4e/Si), PERC 4/DC, PERC 4/SC, and PERC 4e/DC adapters
Drive bays	Two 1" Ultra320 hot-plug SCSI drives
Maximum internal storage	SCSI: up to 600GB
Hard drives[2]	36GB, 73GB, 146GB and 300GB (10,000 rpm) Ultra320 SCSI 18GB, 36GB, 73GB and 146GB (15,000 rpm) Ultra320 SCSI
Internal storage	10K/15K RPM SCSI drives
External storage	Dell PowerVault™ SCSI and Dell/EMC fibre channel storage
Tape backup options	Internal: none External: PowerVault 114T, 124T, 132T and 136T
Network interface card	Dual embedded Intel Gigabit[3] NICs; single and dual port Intel PRO/1000 MT Gigabit adapters; Intel PRO/1000 MF (optical)
Power supply	550W, optional hot-plug redundant power
Availability	ECC memory; Single Device Data Correction (SDDC); Spare Bank; Memory Mirroring; hot-plug SCSI hard drives; optional hot-plug redundant power; redundant cooling; tool-less chassis; high availability fibre channel and SCSI cluster support; optional ROMB with battery-backed cache; optional RAID controllers
Video	Embedded ATI Radeon 7000-M with 16MB SDRAM
Remote management	Baseboard Management Controller with IPMI 1.5 compliance, accessible via network or serial port; optional slot-free DRAC 4/I
Systems management	Dell OpenManage™
Rack support	4-post (Dell rack), 2-post and 3rd party
Operating systems	Microsoft® Windows Server™ 2003, Standard x64 Edition; Microsoft Windows Server 2003, Enterprise x64 Edition; Microsoft Windows Server 2003, Standard Edition; Microsoft Windows Server 2003, Web Edition; Microsoft Windows Server 2003, Enterprise Edition; Red Hat® Enterprise Linux® v2.1; Red Hat Enterprise Linux v3 Advanced Server EM64T; Red Hat Enterprise Linux v3; Novell® NetWare® 5.1 and 6.5

[1]With availability of the dual ranked 4GB DIMMs scheduled for 2nd half of 2005
[2]For hard drives, GB means 1 billion bytes; actual capacity varies with preloaded material and operating environment and will be less
[3]This term does not connote an actual operating speed of 1GB/sec. For high speed transmission, connection to a Gigabit Ethernet server and network infrastructure is required