

Dell PowerEdge 1650 Server



The Dell™ PowerEdge™ 1650 server is designed to deliver exceptional levels of availability, manageability, performance and scalability in a rack-dense, space-saving solution.

Space-Saving Performance

Incorporating new levels of availability and performance in an easy-to-manage, flexible server, the Dell PowerEdge 1650 is an ultra rack-dense, general purpose solution designed to minimize space while helping to provide maximum scalability in a 1U form factor. This exceptional server delivers power and performance outside its class and is ideal for enterprise data customers, Internet and application service providers and high performance computing cluster environments.

The PowerEdge 1650 is the first server on the market to include dual Intel® PRO/1000 XT embedded network connections, each providing 1000MB/s of bandwidth to alleviate bottlenecks and maximize uptime through failover capability. Flexible 10/100/1000 connectivity lets you match the speeds of your current network devices while you prepare your Gigabit infrastructure.

Availability and Power

With the PowerEdge 1650, Dell becomes the first major system provider to incorporate enterprise-class availability features and components in a 1U chassis. This capable solution provides numerous advantages over other servers in its class, including the ability to support hot-plug redundant power supplies (optional) and cooling fans (standard), dual channel embedded RAID functionality with 128MB of RAM and battery backup, dual embedded Gigabit NICs, and up to three hot-plug SCSI hard drives. In addition, the server features remote management functionality, including dead server management, and a chipset that can support high levels of input/output (I/O) throughput.

Flexibility

An expandable, powerful solution, the PowerEdge 1650 is designed with a flexible architecture enabling a multitude of performance-driven tasks. With dual Intel® Pentium® III processors, the PowerEdge 1650 can support Internet applications, high performance computing clusters (HPCC), SANs, mainstream application environments and network infrastructure applications including domain controllers, DNS servers and DHCP servers. The embedded Intel PRO/1000 XT Gigabit LOM (LAN on Motherboard) connection provides 1000MB/s of bandwidth to your network while eliminating the need to purchase a Network Interface Card (NIC) or occupy a PCI slot. The PowerEdge 1650 server's efficient size and scalable infrastructure positions itself as a high-performance small application server.

Reliability and Expandability

The PowerEdge 1650 is an impressive choice with a high performance tri-peer PCI bus architecture capable of managing demanding Internet applications. The reliable, scalable design takes the PowerEdge 1650 to a new level of readiness for applications requiring high system performance, high I/O throughput and limited internal storage. Feature enhancements incorporated on the PowerEdge 1650 provide the server with improved performance over its predecessor and enterprise class availability. The PowerEdge 1650 provides remote management options that allow for true dead server management, including out-of-band management. Designed to be an expandable solution, the PowerEdge 1650 includes dual channel embedded RAID with battery backed cache for improved hard drive performance and availability without the need to occupy a PCI slot. The space-saving design makes this efficient solution ideal for any organization where space management is a critical issue.



PowerEdge 1650

Exceptional performance. Easy as **DELL™**

Visit www.dell.com for more information.



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DELL PREMIER ENTERPRISE SERVICES

Dell™ offers a broad portfolio of services that help optimize use of Dell technology, rapidly deploy systems, and maximize system uptime. Dell provides expert advice and technical assistance, and a single point of contact, while striving to help achieve a lower total cost of ownership.

Premier Enterprise Consulting

- Delivers valuable assistance for IT infrastructure (Microsoft® Windows® 2000, Exchange, Thin Client, Systems Management), and storage consulting
- Offers consulting programs for planning, implementation, tuning, training, backup and recovery
- Dell Technology Solutions Center provides a secure, comprehensive lab where Dell can assist in analyzing your challenges, testing your systems and determining solutions that will succeed in your unique business environment
- Dell Technology Training offering extensive enterprise training for Dell storage products, storage area networks (SANs), clustering, PowerEdge servers and Dell OpenManage™ systems management software

Custom Integration

- High-quality, one-touch custom factory integration services
- Asset data services, hardware and software integration, and replacement parts program

Installation Services

- Helps put new technology to work rapidly
- Includes implementation planning, on-site installation of server, storage, and clustering products, mounting Dell products into Dell-supported racks, and a suite of upgrade services

Standard Support Services

- Limited warranty¹ and three years of Next Business Day (NBD) parts replacement and one year NBD On-Site² labor service
- Pre-Failure Alert Program³ for Dell hard disk drive and DIMM components
- 30-Day Getting Started⁴ program helpline for Dell servers
- 24/7 toll-free hardware technical phone support for as long as you own your Dell server
- 24/7 on-line support featuring extensive on-line tools at support.dell.com and Resolution Assistant on PowerEdge servers

Other Optional Support Services

- Extended NBD service or parts delivery for up to five years
- Same day on-site support services including 4-hour response⁵, or 2-hour response and 6-hour repair⁶
- DirectLine™ toll-free telephone support for Microsoft Windows 2000, Windows NT® and Novell® operating systems
- DirectLine Plus toll-free 24/7 telephone support for select Microsoft BackOffice™ applications, Red Hat® Linux® (annual contract required for 24/7 support), and enhanced operating system support

Services vary by region. For more information on the available services in your area, please visit www.dell.com.

FEATURES DESCRIPTION

Processors	Dual Intel® Pentium® III processors at 1.13GHz, 1.26GHz and 1.4GHz
Front side bus	133MHz
Cache	512KB L2
Chipset	ServerWorks ServerSet™ (HE-SL)
Memory	256MB up to 4GB
PCI slots	2 x 64-bit/66MHz or 1 x 64-bit/66MHz and 1 x 32-bit/33MHz
Network interface card	Dual embedded Intel® PRO/1000 XT network connection
Embedded SCSI	Dual channel Adaptec 7899, Ultra3 (U160) SCSI
Hard drive bays	3 x 1" SCSI
Internal storage	Up to 219GB ⁷ SCSI
Video	Embedded ATI Rage XL with 8MB memory
RAID	Dual channel embedded RAID option for internal drives (PERC3/Di) or PERC3/DC for external storage support
Remote management	DRAC III or Embedded Remote Access Option (ERA/O) (available May 2002)
Systems management	Fault monitoring and console alerting through Dell OpenManage IT Assistant keeps administrators informed of server status on voltage, fan, and thermal conditions to help ensure notification in case of potential problems
Networking	Dual embedded Intel® PRO/1000 XT network connection, Intel® PRO/1000 XT (copper), Intel® PRO/1000 F (optical), Intel® PRO/100+ Dual Port, Intel® PRO/100 S, Broadcom® NetXtreme Gigabit NIC (copper)
DC power	Optional (available May 2002)
Availability	Hot-plug SCSI hard drives ECC memory Hot-plug, redundant power (optional) Hot-plug, redundant cooling Dual channel embedded RAID option with 128MB of RAM and battery backup Tool-less chassis Cluster support

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¹For a complete copy of our guarantees or limited warranties, please visit http://www.dell.com/us/en/gen/services/service_service_contracts.htm or write to Dell USA L. P., One Dell Way, Round Rock, Texas 78682, Attn: Warranties.

²Service may be provided by third-party. Technician will be dispatched if necessary following phone-based troubleshooting. To receive next business day service, Dell must notify the service provider before 5:00 pm (depending on service contract) customer time. Availability varies.

³The Pre-Failure Alert program is available only in the United States on selected Dell PowerEdge servers (1xx0, 2xx0, 4xx0, 6xx0, 8450) and select PowerVault products. PowerEdge 300 is not included. Your system must be monitored by Dell-recognized system management applications in order to participate in the Pre-Failure Alert Program. The Pre-Failure Alert Program covers Dell products utilizing applications that can acquire information from the HPI and OpenManage Server Agent.

⁴30-day telephone support program is at no additional charge to help customers with installation optimization and configuration questions during the critical 30-day period after shipment of your PowerEdge. This program is available to customers who purchase Novell NetWare® or Microsoft Windows NT Server or Windows 2000 with their PowerEdge server from Dell. Support provided after the 30-day Getting Started Program will be for only the Dell hardware. Beyond 30 days from the invoice date, Dell's DirectLine telephone support service is available for purchase for NOS support.

⁵Service may be provided by a third party following phone-based troubleshooting. Available within a 125-mile radius of over 80 metropolitan areas. Customers not located within a 125-mile radius of the stocking locations are not eligible for this offering. Not available with any other Dell systems. Available in the U.S. only. For 7x24 service, Dell will dispatch a service technician within 4 hours of determining the hardware problem. The service technician may not arrive until the following business day if dispatched after 4:00 pm local time.

⁶Available within a 25-mile radius of over 60 metropolitan areas. Customers not located within a 25-mile radius of the stocking locations are not eligible for this offering. Available on select Dell PowerEdge and PowerVault models in the U.S. only. Dell will, if necessary after phone-based troubleshooting, dispatch a technician to the customer site within 2 hours of determining the hardware problem. Service is subject to the terms and conditions of the service contract. See http://www.dell.com/us/en/biz/services/service_peservmain.htm for details.

⁷For hard drives, GB means 1 billion bytes; total accessible capacity varies depending on operating environment.

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