

# Dell PowerEdge 2650 Server



Combining a new level of performance with availability and configuration flexibility in a space saving 2U chassis, the Dell™ PowerEdge™ 2650 delivers exceptional, cost-efficient computing power for a variety of front-end and mid-tier server workloads.

## Performance

The Dell PowerEdge 2650 server is architecturally balanced to maximize processing speeds as well as provide high data input/output (I/O) and memory bandwidth. Featuring dual Intel® Xeon™ processors with a 533MHz front side bus, the server is well suited for compute- and memory-intensive applications. Plus, it operates on the ServerWorks® Grand Champion-LE (GC-LE) chipset that provides an incredible 4.2GB/s of memory bandwidth and up to 3.8GB/s of throughput on a five PCI bus segment architecture.

The PowerEdge 2650 also incorporates new features such as high bandwidth PCI-X slots, dual Gigabit network interface cards (NICs) as well as high-speed double data rate (DDR) memory. In addition, the PowerEdge server offers an embedded dual channel Ultra3 (U160) SCSI controller that enables you to separate disk subsystems for different purposes on up to five internal SCSI drives. All of which help to improve speed and performance and maximize the capabilities of your server.

## Availability

Through a variety of availability features, the PowerEdge 2650 is designed to maximize server uptime. The server offers error-correcting code (ECC) SDRAM memory with ChipKill technology, and Spare Bank support to help withstand errors and avoid costly downtime. In addition, the general-purpose server features optional embedded Ultra3 (U160) RAID with 128MB of battery-backed cache that allows data to be written to a disk even in the event of power outage. Hot-plug SCSI hard drives, hot-plug redundant power supplies and hot-plug cooling fans, minimize the need to power the server down when fixing components. And the PowerEdge 2650 features dual embedded Gigabit NICs that provide failover support and help maximize I/O throughput.

## Configuration Flexibility and Expandability

The rack-optimized PowerEdge 2650 delivers a great balance of expandability and rack density. With three open PCI-X slots and numerous embedded features, you can deploy the PowerEdge 2650 in a configuration that supports a wide range of workloads in a data center. It provides SDRAM memory capabilities from 256MB up to 12GB to meet your requirements now and the six DIMM slots offer you the capacity to grow in the future. Plus, the chipset supports 2:1 memory interleaving for reduced memory latency. The split backplane design also offers configuration flexibility. For instance, you can configure two hard drives to mirror the operating system for redundancy and use the remaining three drives in a RAID 5 configuration for storing data.

Furthermore, its five hot-plug SCSI hard drives allow up to 730GB of internal storage. And three I/O slots expand functionality to beyond what is supported with the embedded feature set.

## Manageability and Serviceability

The PowerEdge 2650 incorporates special design features that make the server easy to deploy, service and manage remotely. It consists of a cable-less motherboard design that results in improved airflow for better temperature control and simplified serviceability. The tool-less chassis enables easy access to internal components for quick maintenance. In addition, the new Embedded Remote Access (ERA) management feature enables users to access, diagnose and remotely manage a server regardless of its state. The active, backlit Dell logo on the bezel and the front mounted LCD display are also designed to accelerate diagnosis and system repair through the use of light indicators and text messaging.

The PowerEdge 2650 full-featured server delivers exceptional performance, bandwidth and flexibility in a slim chassis to cost effectively manage a variety of front-end and mid-tier workloads.



PowerEdge 2650

Exceptional performance. Easy as **DELL**™

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## DELL ENTERPRISE SERVICES

By leveraging the proven advantages of our direct model, including tailored service and support, low cost and a single point of accountability, Dell Services can provide you with fast, effective, affordable service offerings at any point in your IT process. Whether you need professional consulting, training and certification, deployment, or support services, Dell promises to be your single point of accountability at all times.

### Professional Services

Dell Professional Services enables Dell customers to optimize ROI by leveraging complex technology through the design, development and deployment of innovative, robust and scalable business-critical solutions. With each engagement, we utilize our proven methodology and project management expertise to understand your business objectives, design plans that are flexible to adapt to your current environment and then deliver the desired results.

### Deployment Services

We bring you deployment assistance that delivers true value from beginning to end. Dell can tailor systems to our customers' specifications by customizing the hardware and software configuration during the initial system-build to reduce redundancy and time. We can manage the delivery, installation and disposal of your assets with the same eye for efficiency.

### Training and Certification

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### Enterprise Support Services

Technology is a significant investment, and it pays to have a partner who can help you minimize costly downtime. Through our Enterprise Support Services offerings, Dell provides tiered support service packages with the flexibility to customize the offering to meet your specific needs across a wide range of computing environments. With proactive and reactive support options which include hardware and software support with varied response levels, account management, and remote resolution, Dell provides support solutions that meet your needs, cost effectively.

FEATURES	DESCRIPTION
<b>Form factor</b>	2U rack height
<b>Processor(s)</b>	Up to two Intel® Xeon™ processors at 2.0GHz, 2.4GHz, 2.8GHz, 3.06 GHz and 3.2GHz with hyper-threading support
<b>Front side bus</b>	533MHz front side bus designed for fast data throughput
<b>L2 cache</b>	512KB advanced transfer cache designed to improve access time to server data; 1MB L3 cache with 3.06GHz and 3.2GHz processors; 2MB L3 cache with 3.2 GHz processors
<b>Chipset</b>	ServerWorks® GC-LE Chipset supports five PCI buses: three PCI-X (1 x 64bit/133MHz, 2 x 64bit/100MHz), one 64bit/66MHz, one legacy bus (32bit/33MHz)
<b>Memory</b>	256MB - 12GB PC266 ECC DDR SDRAM Six DIMM sockets on system board configurable for Spare Bank support
<b>I/O channels</b>	Seven total: two full length, one half-length PCI-X slots (1 x 64bit/133MHz and 2 x 64bit/100MHz), two embedded Gigabit NICs (64-bit/100MHz), and dual channel embedded Ultra3 (U160) SCSI/RAID controllers (64bit/66MHz)
<b>RAID controller</b>	Embedded dual channel Ultra3 (U160) SCSI with 128MB cache (enablement optional)
<b>Drive bays</b>	Hard drive bay for 5 x 1" or 2+3 hot-plug SCSI drives Media bay for one 24X IDE CD-ROM or 8X IDE DVD ROM, one 3.5" 1.44MB diskette drive
<b>Maximum internal storage</b>	730GB (5 x 146GB)
<b>Hard drives</b>	18GB, 36GB, 73GB, 146GB Ultra320 SCSI
<b>External storage</b>	SCSI and fibre channel storage systems
<b>Network interface card</b>	Two integrated Broadcom® Gigabit BaseT with load balancing and failover support
<b>Power Availability</b>	Optional, hot-plug, redundant 500W power supplies Spare Bank configurable ECC memory with ChipKill technology (512MB, 1GB and 2GB DIMMs required) Dual channel embedded Ultra3 (U160) RAID with battery-backed cache Duplexing support Dual embedded NICs with failover and load balancing support Hot-plug redundant power supplies Hot-plug hard drives and cooling fans High availability fibre channel and SCSI cluster support Front mounted keyboard, video and monitor ports Embedded Remote Access (ERA) provides server management capability
<b>Graphics</b>	Integrated ATI-Rage XL controller with 8MB of SDRAM (not upgradable)
<b>Optional software</b>	Novell NetWare® Version 5.1; Novell NetWare Version 6.0 (supported, factory installation not available); Microsoft® Windows® Server 2003 Enterprise Edition; Microsoft Windows Server 2003 Standard Edition; Microsoft Windows Server 2003 Web Edition; Microsoft Windows 2000 Server; Microsoft Windows 2000 Advanced Server; Red Hat® Linux 8.0, Red Hat Linux ESV2.1, and Red Hat Linux ASV2.1
<b>Dimensions (H x W x D)</b>	3.375" x 19.0" x 27.5" (8.57cm x 48.26cm x 69.85cm)

Dell is not responsible for errors in typography or photography.

<sup>1</sup> This term indicates compliance with IEEE9 standard 802.3ab for Gigabit Ethernet, and does not connote actual operating speed of 1 Gb/sec. For high speed transmission, connection to a Gigabit Ethernet server and network infrastructure is required.

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