

HP ProLiant DL580 Generation 4 Server

Data sheet



Enterprise-strength performance and scalability in a space-efficient, rack-optimized package

The HP ProLiant DL580 Generation 4 (G4) Server is an enterprise-class, 4-socket server designed for maximum scalability and high availability. Its innovative chassis offers unsurpassed flexibility and serviceability in a versatile, rack-optimized form factor.

Based upon the latest industry-standard processing, memory, I/O and networking technologies, the DL580 G4 Server provides the highest levels of performance demanded by today's computer-intensive applications. Unparalleled high-availability features, including front-accessible Hot-Plug RAID Memory and hot-plug redundant components, enable maximum uptime. Integrated Lights-Out 2 (iLO 2) technology allows remote administration from a standard web browser without ever having to visit the server. The highly expandable architecture of the 4U dense form factor provides maximum application deployment flexibility, with the ability to access processors, memory, hard drives and power supplies while the unit remains secured in the rack. The 4U form factor also enables rapid response to service events, while radically decreasing overall IT costs and server downtime.

Key features and benefits

- High availability with front-accessible Hot Plug RAID Memory, hot plug redundant fans, and hot plug redundant power supplies
- Support for latest technologies including PCI Express, SAS, and dual-core processing
- Designed for outstanding scalability

Ideal environments

Space-constrained corporate data centers and service providers

- With dual-core processing, up to 576 TB of internal storage, 16 DIMM sockets and PCI-Express or hot-plug PCI-X mezzanine options, the The HP ProLiant DL580 G4 Server packs all the scalability, storage, memory and I/O you need into a versatile, 4U chassis.
- Availability features like Hot-Plug RAID Memory, hot-plug redundant power supplies, hot-plug redundant fans, Hot-Plug PCI-X and Hot-Plug RAID hard drives keep environments up and running and users productive.
- Power Regulator delivers server level, policy-based power management providing energy efficiency and savings on system power and cooling costs.
- Ambidextrous cable management and a quick deploy rail solution make racking a snap.

The ProLiant DL580 G4 Server is designed for enhanced uptime and is engineered to provide outstanding scalability and serviceability for the enterprise.

The ideal server for 8P customers looking to migrate from existing DL740/DL760 platforms to lower cost, higher performance platforms.

Database, messaging and business applications

- Up to four Dual-Core Intel Xeon processors with EM64T and Hyper-Threading, DDR2 memory, integrated HP Smart Array P400 controller and large internal storage capacity provide scalability for everything from web applications to mail servers to databases.
- Four standard full-length X4 PCI-Express slots, one standard PCI-X slot and the ability to add two additional X4 PCI Express, one additional X8 PCI Express or two additional Hot-Plug PCI-X slots with a mezzanine option provide powerful and flexible I/O alternatives.
- Dual integrated Gigabit NICs provide the connectivity and bandwidth needed in today's database or business applications environments.
- Easily attach to SAN or NAS and manage from one location.

Server consolidation

- Scalability, availability and built-in serviceability make the DL580 G4 Server the perfect platform for server consolidation solutions and virtualization.
- The DL580 G4 Server and HP ProLiant Essentials software make it easy to deploy, manage and migrate virtualized servers with VMWare or Microsoft Virtual Server.
- Integrated Lights-Out 2 (iLO 2) enables administrators to manage the DL580 G4 Server from remote locations.

Benefits of the HP DL580 G4 Server

Hot-Plug RAID Memory

- The DL580 G4 Server continues the strong track record of previous generation HP ProLiant DL580 servers with features like dual-core 64-bit processing and front-accessible Hot-Plug RAID Memory, providing higher return on investment.
- Advanced Memory Protection provides higher levels of memory availability than Standard ECC Memory and protects up to 64 GB of memory from unplanned downtime.
- Hot-Plug RAID Memory eliminates service interruptions caused by multi-bit memory errors, and allows you to replace failed memory without ever taking down your server or disengaging from the rack.
- Online Spare Memory automatically fails-over degraded DIMMs to a spare memory bank based on pre-defined single-bit error thresholds, allowing for scheduled maintenance.
- Dynamically add memory without powering down or rebooting the server (Microsoft Windows Server 2003 only).

4-socket price/performance

- The HP ProLiant DL580 G4 Server supports the latest dual-core Intel Xeon 7041 and 7030 processors for maximum scalability.
- With four standard PCI Express (x4) and one 64-bit/133 MHz PCI-X slots, and the ability to add PCI Express or Hot-Plug PCI-X slots, the DL580 G4 Server provides plenty of bandwidth and flexibility for expansion.
- The DL580 G4 Server is packed with standard features that enhance performance, including dual integrated Gigabit NICs and a HP Smart Array P400 controller with up to 512 MB battery-backed write cache.
- Improve I/O system performance with an 800 MHz Dual-Independent Front Side Bus, 400 MHz DDR2 SDRAM and PCI-X/PCI Express technology.

HP offers a variety of Care Pack installation, startup, and support options for both hardware and software to help you get your HP ProLiant DL-based solution up and running quickly, with minimal business disruption.



Virtually cable-less

- Tool-less maintenance and service access to external and internal hot-plug components without sacrificing internal expansion capacity
- Up to 64 GB of memory, two Multibay media bays, five standard full-length PCI slots (expandable with mezzanine) and eight internal hard disk drives provide the flexibility required to deploy and redeploy in a variety of application environments.
- Standard Ejectable Slimline DVD/CD-RW drive can be ejected for additional security or supplemented with optional floppy or additional optical drives. USB 2.0 up-front increases media options, including the ability to boot from a USB key.
- Snap-on rail kits and cable-less design built specifically for the 4U form factor allow for hassle-free rack deployments in tapped or square hole racks.
- Internal and external diagnostic lighting indicators quickly and accurately diagnose failed components like power supplies, fans, processors, DIMMs and hard drives for warranty replacement.
- System Insight Display provides instant visual indication of fault conditions within all major subsystems of the server, allowing rapid response to service events and resulting in major reductions in system downtime and IT service/maintenance costs.

Simplify ownership

- Built-in Integrated Lights-Out 2 (iLO 2) Standard combines secure, basic management functions and diagnostics with essential virtual presence and control to manage HP ProLiant systems across the data center or across the world. Easily upgradeable to iLO 2 Advanced for more robust, hardware-based remote administration to maximize availability and graphical control over your DL 580 G4 Server.
- HP ProLiant Essentials Foundation Pack software, shipped with every HP ProLiant server, enables you to quickly install and configure systems, proactively manage change and ensure continuous server operations.
- HP SmartStart software configures hardware, loads optimized drives and assists with software installation to achieve optimum reliability, performance and system uptime.
- HP SmartStart Scripting Toolkit radically simplifies high-volume server deployments by including replication utilities that create and copy configuration and script files.
- Expand your capabilities with new tools like the HP ProLiant Essentials Rapid Deployment Value Pack software, which automates the process of deploying and provisioning your unique server software configurations.

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Technical specifications

Available processors	64-bit Dual-core Intel® Xeon™ Processor 7041, 3.00 GHz, 2x2M L2 Cache, 800 MHz Front Side Bus (FSB) 64-bit Dual-core Intel® Xeon™ Processor 7030, 2.8 GHz, 2x1M L2 Cache, 800 MHz FSB
Processor capacity	4
Memory type	PC2-3200 DDR2
Maximum memory	64 GB with 16 x 4GB DIMMs
Memory protection	Hot-Plug RAID, Hot-Plug Mirrored, Online Spare, Advanced ECC
Storage type	Hot-plug 2.5" Serial Attached SCSI (SAS) or Hot-plug Serial ATA (SATA)
Maximum drive bays	8 SFF SAS/SATA
Removable media bays	2, DVD/CD-RW ships standard, floppy or additional optical drive optional
Storage controller	HP Smart Array P400 SAS/SATA Controller
Form factor	4U dense rack
Networking	Dual NC371i Multi-function Gigabit Server Adaptors (Embedded)
Remote management	Integrated Lights-Out 2 (iLO 2)
Redundant power supply and fans	Redundant Power Supply is Optional, Redundant Fans are Standard

Services HP services providing continuous care and support expertise with committed response designed to meet your IT and business needs.

To fully capitalizing on your HP ProLiant servers' capabilities requires a service partner who thoroughly understands your server technology and systems environment. HP Services, an industry leader in provision of multi vender support solutions provides a range of support services designed to meet the varying needs of business. Whether a small/medium organization or large global corporation HP has a ProLiant server support offer to help you speedily deploy and maximize system uptime.

Extended Care—Minimum recommended service support offer designed to ensure you have access to expert assistance, whenever needed. *ProLiant DL580 3-year 24x7 4-hour response same day hardware support*

Committed Care—Cost-effective combined hardware and software support service designed to extend HP Services committed response and to speed more complex interoperability problem resolution. *ProLiant DL580 3-year 24x7 6-hour call to repair hardware support*

Committed Repair—Highest HP Support service level recommend to help increase IT performance and availability, improve IT management with comprehensive, consistent and integrated proactive and reactive hardware and software support services. *ProLiant DL580 3-year 24x7 Mission Critical Proactive 24 support*

Deployment Services—HP Installation and Start Up services designed to take time, risk, and worry out of the deployment of ProLiant servers—and free your IT Team to focus on what they do best, meeting your business needs. *ProLiant DL580 Installation and Startup service*

For more information visit: www.hp.com/services/proliantservices and www.hp.com/go/proliant/carepack

Warranty 3-year parts, 3-year labor, 3-year onsite

Technology services HP Technology Services provides a range of services to commercial and enterprise customers. For more information, contact your HP sales representative or visit www.hp.com/hps/support.

Financial services HP Financial Services provides financing and financial asset management programs. For more information, contact your HP sales representative or visit www.hp.com/go/hpfinancialservices.

For more info For more information about the HP ProLiant DL580 G4 Server, visit www.hp.com/servers/proliantdl580.

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