



Concentrated compute without compromising on performance, scalability, and efficiency

HP ProLiant DL560 Gen8 Server



With business-critical workloads moving to x86 environments and virtualization becoming a norm, are you looking to achieve the performance, scalability, and expandability that's critical for your business? Do space constraints pose challenges you need to overcome? Are you looking for concentrated compute without having to compromise on efficiency? Imagine what you can do if you packed the computing capacity of a 4-processor (4P) server in a 2P footprint. You can benefit from growing your business without having to expand your data center.

Introducing HP ProLiant DL560 Gen 8 Server, a density-optimized 4-socket (4S), dense 2U form factor rack server designed to deliver performance, scalability, and expandability. A brand-new server in the ProLiant portfolio—built on Gen8 features such as HP ProActive Insight architecture—it comes with an extensive set of capabilities to help you achieve greater levels of efficiency and lower total cost of ownership (TCO).

The ProLiant DL560 Gen8 server is ideal for environments that involve virtualization, database management, and business processing—as well as other 4P data-intensive applications, where optimization of data center space, performance, and costs are vital. Powered by the new high-density and cost-effective Intel® Xeon® E5-4600 processors, the ProLiant DL560 Gen8 server offers the ideal 4P, 2U form factor without compromising on performance.¹

¹ Source: "New ProLiant DL560 Gen8 is #1 on the VMmark 2.1.1 benchmark," ISS, June 2012.

Blending the best of both worlds

Packed with the latest HP innovative and intuitive hardware and embedded management features, the new ProLiant DL560 Gen8 is the ideal scale-up 4P server. It blends the best of the HP ProLiant DL580 G7 Server series and HP ProLiant DL380p Gen8 servers, offering the processor density of the former at the form factor of the latter. Its dense 2U utilizes less rack space, allowing up to 21 servers per 42U rack. It features a perfect balance of new system architecture with enhanced remote access service features, extensive memory capacity, and I/O throughput—significantly accelerating virtualization performance, removing bottlenecks, and delivering the ultimate performance for your most demanding x86 workloads.

The ProLiant DL560 Gen8 server integrates your storage, network devices, and facility resources into a common infrastructure to enable your data centers to respond quickly in an agile business environment. With a wide range of features, it simplifies and improves management tasks to help you achieve greater levels of efficiency and lower the TCO, resulting in a better return on your server investment.

Key features and benefits

World-class performance, scalability, and expandability

- Density-optimized 4P computing in a dense 2U helps increase computing footprint by enabling consolidation of servers and repurposing valuable space, while 4S computing supports up to four cost-effective Intel Xeon E5-4600 processors (each up to eight cores and 130 watts) without system configuration restrictions.
- Up to six PCIe 3.0 expansion slots (3x16) enhances serviceability, provides improved latency, and offers a significantly improved bandwidth per I/O expansion slot (compared to G7 servers).
- 48 DDR3 DIMM sockets, for up to 1.5 TB of HP SmartMemory, and a maximum memory speed up to 1600 MHz.

Improved memory, storage, and throughput performance

- HP SmartMemory offers improved performance, quality, manageability, and efficiency while reducing downtime and energy costs, including up to 20 percent less power using low voltage registered dual in-line memory modules (RDIMMs) without impacting performance.²
- HP Smart Array P420i RAID controller—with optional 512 MB flash-backed write cache (FBWC)—supports HP SmartStorage and HP SmartDrive, along with a choice of a wide section of two 2.5-inch SFF SAS and SSD drives, providing improved RAID controller performance, and drive interface and serviceability information.

- HP FlexibleLOM allows customization of server networking today, and the ability to meet future needs without overhauling server hardware—by providing a choice of networking bandwidth (between a 4x1G or 2x10G Ethernet and a 2x10G FlexFabric), technology, HP OEM vendor partners, and number of ports.

Enhanced user experience

- HP SmartDrive hot-plug drive carrier improves drive-status indication with an intuitive “do not remove LED” icon-based display, and reduces data loss and improves serviceability.
- HP Smart Socket guide facilitates quicker and more intelligent installation or upgrade of your processor, virtually removing downtime.
- Integrated Lifecycle Automation, an industry-first feature standard across all ProLiant servers, provides embedded provisioning tools and system maintenance capabilities—removing tedious, time-consuming tasks.
- Dynamic Workload Acceleration converges storage, compute, and I/O to turbo-charge application performance, delivering smarter data protection for ever-increasing hard drive capacities.
- Automated Energy Optimization utilizes the embedded intelligence of the HP Sea of Sensors 3D across location, power utilization, and thermal demand, enabling more reliability, better performance, and lesser costs.

Faster, intuitive, simplified server configuration and management

- HP Intelligent Provisioning—a single embedded tool built into Gen8 servers for all set-up and configuration tasks—provides the firmware, drivers, and tools you need to quickly get your systems online without the need for HP disks or downloads.
- HP Active Health provides 24x7 agentless health monitoring and alerting, and 100 percent configuration change logging—helping you start problem analysis faster, using unified diagnostic tools that enable secure data transfer to HP Service and Support.
- HP Smart Update is a breakthrough system-maintenance tool with one-click simplicity that systematically updates firmware and system software across your servers and blade infrastructures.
- HP Insight Control allows you to proactively monitor your ProLiant server’s health and performance (both physical and virtual), deploy them quickly, reduce energy costs, and control your ProLiant servers from anywhere.
- HP Insight Online provides one-stop remote monitoring and support of your infrastructure.

² Source: HP internal lab testing, ISS, January 2012.

Technical specifications



Processor and memory	
Processor family	Intel Xeon E5-4600
Number of processors	2 or 4
Processor cores	8, 6, or 4
Maximum processor speed	2.9 GHz
Cache	20 MB L3 16 MB L3 15 MB L3 12 MB L3
Memory type	DDR3 RDIMM
Memory slots	48 DIMM slots
Maximum memory	1.5 TB
Memory protection features	Advanced error checking and correcting (ECC) and DIMM address/parity protection; memory lockstep mode; online spare plus failed DIMM isolation; patrol and demand scrubbing.
Drives supported	Up to 5 hot-plug 2.5-inch SFF SAS/SSD
Network controller	1 FlexibleLOM Adapter
Storage controller	1 Smart Array P420i
Deployment	
Form factor	Rack
Rack height	2U
System fan features	Redundant standard
Management	HP Integrated Lights-Out 4 (iLO4), Insight Control (optional)
Power supply type	Hot-plug redundant power supply
Warranty (parts-labor-onsite)	3-year parts exchange, 3-year labor, and 3-year onsite
QuickSpecs URL	http://h18000.www1.hp.com/products/quickspecs/14395_div/14395_div.html

Ideal environments and applications

Your business requirements and environment determines your server choice. The ProLiant DL560 Gen8 server is ideal for:

- Server consolidation and virtualization environments
- Space-constrained corporate data centers and service provider environments
- Database, messaging, and business processing environments such as enterprise resource planning (ERP) and customer relationship management (CRM)
- 4P data-intensive applications where data center space, costs, and performance are vital

HP Factory Express

HP Factory Express provides customization and deployment services along with your storage and server purchases. You can customize hardware to your exact specifications in the factory—helping speed deployment. Visit hp.com/go/factoryexpress.

Customer technical training

We offer a variety of training courses on storage software, networking, archiving, and disk storage systems. Our classes are available in many delivery modalities—from traditional instructor-led courses at one of our 80 training centers worldwide to online and onsite training. Visit hp.com/learn/storage.

HP Financial Services

HP Financial Services provides innovative financing and financial asset management programs to help you acquire, manage, and ultimately retire your HP solutions. Visit hp.com/go/hpfinancialservices.

Redefine your data center experience

To know how density-optimized 4S rack technology can grow your business without expanding your data center, visit hp.com/go/proliant.

HP Services and support

HP Technology Services has a robust portfolio of packaged lifecycle support solutions that enable you to improve ProLiant support for better business outcomes.

Optimized Care: delivers outstanding performance and continual availability of your crucial ProLiant systems through deployments and proactive management practices.

- 3-year HP Proactive Care: 24x7 support, and a 6-hour call-to-repair onsite hardware support
- HP Installation and Startup of HP ProLiant Servers

Standard Care: maintains a high level of server availability along with expert help to cut the cost and complexity of implementing and supporting your ProLiant server.

- 3-year HP Proactive Care: 24x7 support, and a 4-hour onsite hardware response commitment
- HP Installation and Startup of HP ProLiant Servers

Basic Care: delivers minimum recommended support service level with expert advice, implementation, and support.

- 3-year HP Collaborative Support: 24x7 support, and a 4-hour onsite hardware response commitment
- HP Installation and Startup of HP ProLiant Servers

All Care Packs come with HP Insight Remote Support software, available at no additional cost, delivering remote monitoring, diagnosis, and problem resolution.

Only HP brings together deep expertise, proactive and business critical support, and a strong partner network.

For more information visit: hp.com/services/proliant.

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