HPE ProLiant DL560 Gen10 server



What's new

- Supporting the second generation Intel® Xeon® Scalable processor family with up to a 7% per-core performance gain [4] over first generation and with memory speeds up to 2933 MT/s [6].
- Intel® Optane™ persistent memory 100 series for HPE offers the flexibility to deploy as dense memory or fast storage u and enables per-socket memory capacity of up to 3.0 TB. [5]
- Enhanced iLO 5 security features such as Server Configuration Lock, iLO Security Dashboard and Workload Performance Advisor.
- HPE InfoSight provides a cloud-based analytics tool that predicts and prevents problems before your business is impacted.
- Segment-optimized processors that offer flexibility and improved performance for specific workloads.

Overview

Looking for a dense but highly scalable server for your data center application and virtualization needs?

HPE ProLiant DL560 Gen10 server is a high-density, 4P server with high-performance, scalability, and reliability, in a 2U chassis. Supporting the Intel® Xeon® Scalable processors with up to a 61% performance gain [1], the HPE ProLiant DL560 Gen10 server offers greater processing power, up to 6 TB of faster memory, and I/O of up to eight PCIe 3.0 slots. Intel® Optane™ persistent memory 100 series for HPE offers unprecedented levels of performance for structured data management and analytics workloads. It offers the intelligence and simplicity of automated management with HPE OneView and HPE Integrated Lights Out 5 (iLO 5). The HPE ProLiant DL560 Gen10 server is the ideal server for business-critical workloads, virtualization, server consolidation, business processing, and general 4P data-intensive applications where data center space and the right performance are paramount.

Features

Scalable 4P Performance in a Dense 2U Form Factor

HPE ProLiant DL560 Gen10 server provides 4P computing in a dense 2U form factor with support for Intel Xeon Platinum (8200,8100 series) and Gold (6200,6100,5200 and 5100 series) processors which provide up to 61% [1] more processor performance and 27% [2] more cores than the previous generation.

Up to 48 DIMM slots which support up to 6 TB for 2933 MT/s DDR4 HPE SmartMemory. HPE DDR4 SmartMemory improves workload performance and power efficiency while reducing data loss and downtime with enhanced error handling.

Intel® Optane™ persistent memory 100 series for HPE works with DRAM to provide fast, high capacity, cost effective memory and enhances compute capability for memory intensive workloads such as structured data management and analytics.

Support for processors with Intel® Speed Select technology that offer configuration flexibility and granular control over CPU performance and VM density optimized processors that enable support of more virtual machines per host.

HPE enhances performance by taking server tuning to the next level. Workload Performance Advisor adds real-time tuning recommendations driven by server resource usage analytics and builds upon existing tuning features such as Workload Matching and Jitter Smoothing.

Flexible New Generation Expandability and Reliability for Multiple Workloads

HPE ProLiant DL560 Gen10 server has a flexible processor tray allowing to scale up from two to four processors only when you need, saving on upfront costs. The flexible drive cage design supports up to 24 SFF SAS/SATA with a maximum of 12 NVMe drives.

Supports up to eight PCIe 3.0 expansion slots for graphical processing units (GPUs) and networking cards offering increased I/O bandwidth and expandability.

Up to four, 96% efficient HPE 800W or 1600W Flexible Slot Power Supplies [3], which enable higher power redundant configurations and flexible voltage ranges. The slots provide the capability to trade-off between 2+2 power supplies or use as extra PCIe slots.

Choice of HPE FlexibleLOM adapters offers range of networking bandwidth (1GbE to 25GbE) and fabric so you can adapt and grow to changing business needs.

Secure and Reliable

HPE iLO 5 enables the world's most secure industry standard servers with HPE Silicon Root of Trust technology to protect your servers from attacks, detect potential intrusions and recover your essential server firmware securely.

New features include Server Configuration Lock that ensures secure transit and locks server hardware configuration, iLO Security Dashboard helps detect and address possible security vulnerabilities and Workload Performance Advisor provides server tuning recommendations for better server performance.

With Runtime Firmware Verification the server firmware is checked every 24 hours verifying validity and credibility of essential system firmware. Secure Recovery allows server firmware to rollback to the to last known good state or factory settings after detection of compromised code.

Additional security options are available with, Trusted Platform Module (TPM), to prevent unauthorized access to the server and safely stores artifacts used to authenticate the server platforms while the Intrusion Detection Kit logs and alerts when the server hood is removed.



Agile Infrastructure Management for Accelerating IT Service Delivery

With HPE ProLiant DL560 Gen10 server, HPE OneView provides infrastructure management for automation simplicity across servers, storage and networking.

HPE InfoSight brings artificial intelligence to HPE Servers with predictive analytics, global learning and recommendation engine to eliminate performance bottlenecks.

A suite of embedded and downloadable tools is available for server lifecycle management including Unified Extensible Firmware Interface (UEFI), Intelligent Provisioning; HPE iLO 5 to monitor and manage; HPE iLO Amplifier Pack, Smart Update Manager (SUM), and Service Pack for ProLiant (SPP).

Services from HPE Pointnext simplify the stages of the IT journey. Advisory and Transformation Services professionals understand customer challenges and design a better solution. Professional Services enable rapid deployment of solutions and Operational Services provide ongoing support.

HPE IT investment solutions help you transform to a digital business with IT economics that align to your business goals.



Technical specifications — HPE ProLiant DL560 Gen10 server

Processor type	Intel
Processor name	Intel® Xeon® Scalable processors
Processor family	Intel® Xeon® Scalable 8200 series Intel® Xeon® Scalable 6200 series Intel® Xeon® Scalable 5200 series Intel® Xeon® Scalable 8100 series Intel® Xeon® Scalable 6100 series Intel® Xeon® Scalable 5100 series
Processor number	4 or 2 or 1
Processor core available	28 or 26 or 24 or 22 or 20 or 18 or 16 or 14 or 12 or 10 or 8 or 6 or 4, per processor, depending on model
Processor cache	13.75 MB L3 or 16.50 MB L3 or 19.25 MB L3 or 22.00 MB L3 or 24.75 MB L3 or 27.50 MB L3 or 30.25 MB L3 or 33.00 MB L3 or 35.75 MB L3 or 38.50 MB L3, depending on model
Processor speed	3.8 GHz, maximum depending on processor
Power supply type	4 HPE Flexible Slot Power Supplies, maximum depending on model
Expansion slots	8 maximum, for detail descriptions reference the QuickSpecs
Maximum memory	6.0 TB with 128 GB DDR4, depending on processor model 12.0 TB with 512 GB Persistent Memory, depending on processor model
Memory, standard	6.0 TB (48 X 128 GB) LRDIMM; 12.0 TB (24 X 512 GB) HPE Persistent Memory
Memory slots	48 DIMM slots maximum
Memory type	HPE DDR4 SmartMemory and HPE Persistent Memory
System fan features	Hot plug redundant standard
Network controller	Optional FlexibleLOM
Storage controller	HPE Smart Array S100i or HPE Smart Array P408i-a SR Gen10 Controller or HPE Smart Array P816i-a SR Gen10 Controller, depending on model
Product dimensions	8.75 x 44.55 x 75.47 cm
Weight	34.12 kg
Infrastructure management	HPE iLO Standard with Intelligent Provisioning (embedded), HPE OneView Standard (requires download) HPE iLO Advanced, HPE iLO Advanced Premium Security Edition and HPE OneView Advanced (optional require licenses)
Warranty	3/3/3 - Server Warranty includes three years of parts, three years of labor, three years of onsite support coverage. Additional information regarding worldwide limited warranty and technical support is available at: http://h20564.www2.hpe.com/hpsc/wc/public/home. Additional HPE support and service coverage for your product can be purchased locally. For information on availability of service upgrades and the cost for these service upgrades, refer to the HPE website at http://www.hpe.com/support
Drive supported	8SFF SAS/SATA/SSD or Premium 6SFF and 2 NVMe SAS/SATA/SSD or 8SFF NVMe or 2SFF Premium HDD Front NVMe/SAS/SATA - for detailed configuration options refer to the QuickSpecs

[1] HPE measurements: Up to 61% performance increase of Intel Xeon Platinum vs. previous generation E5-4600 v4 average gains of STREAM, Linpack, SPEC CPU2006 & SPEC CPU2017 metrics on HPE servers comparing 4-socket Intel Xeon Platinum 8280 to E5-4699 v4 family processors. Any difference in system hardware or software design or configuration may affect actual performance. April 2019.

[2] Up to 27% increase in cores of Intel Xeon Platinum versus previous generation comparing 4-socket Intel Xeon Platinum 8280 (28 cores) to E5-4669 v4 (22 cores). Calculation 28 cores / 2x cores= 1.27 = 27%. Apr 2019.

[3] 1600W Power supplies only support high line voltage (200V AC to 240V AC)

[4] HPE measurements: Up to 7% performance increase of Intel Xeon Platinum vs. previous generation average gains of STREAM, Linpack, & SPEC CPU2017 metrics on HPE servers comparing 4-socket Intel Xeon Platinum 8280 to Intel Xeon Platinum 8180 family processors. Any difference in system hardware or software design or configuration may affect actual performance. April 2019.

[5] 3.0 TB per socket with HPE 512GB 2666 Persistent Memory Kit

[6] HPE DDR4 SmartMemory LRDIMM on HPE ProLiant DL560 Gen10 server can support 2933 MT/s @ 2DPC



For additional technical information, available models and options, please reference the QuickSpecs

HPE Services

No matter where you are in your transformation journey, you can count on HPE Services to deliver the expertise you need when, where and how you need it. From strategy and planning to deployment, ongoing operations and beyond, our experts can help you realize your digital ambitions.

Consulting services

Experts can help you map out your path to hybrid cloud and optimize your operations.

Managed services

HPE runs your IT operations, giving you unified control, so can focus on innovation.

Operational services

Optimize your entire IT environment and drive innovation. Manage day-to-day IT operational tasks while freeing up valuable time and resources.

- HPE Complete Care Service: a modular service designed to help optimize your entire IT environment and achieve agreed upon IT outcomes and business goals. All delivered by an assigned team of HPE experts.
- HPE Tech Care Service: the operational service experience for HPE products. The service provides access to product specific experts, an AI driven digital experience, and general technical guidance to help reduce risk and search for ways to do things better.

Lifecycle Services

Address your specific IT deployment project needs with tailored project management and deployment services.

HPE Education Services

Training and certification designed for IT and business professionals across all industries. Create learning paths to expand proficiency in a specific subject. Schedule training in a way that works best for your business with flexible continuous learning options.

The Defective Media Retention (DMR) service feature option applies only to Disk or eligible SSD/Flash Drives replaced by Hewlett Packard Enterprise due to malfunction. Comprehensive Defective Material Retention (CDMR) allows you to keep all data retentive components.

HPE GreenLake

HPE GreenLake edge-to-cloud platform is HPE's market-leading as-a-Service offering that brings the cloud experience to apps and data everywhere – data centers, multi-clouds, and edges – with one unified operating model, on premises, fully managed in a pay per use model.

If you are looking for more services, like **IT financing solutions**, please explore them here.

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Parts and components that have reached their maximum supported lifetime and/or the maximum usage limitations as set forth in the manufacturer's operating manual, product quick-specs, or the technical product data sheet will not be provided, repaired, or replaced as part of these services.

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