

# HPE ProLiant DL360 Gen10 Server

### **ProLiant DL Servers**



#### What's new

- Innovative design with greater flexibility to mix and match storage within a single chassis and capacity to support most dynamic workloads.
- HPE InfoSight provides a cloud-based analytics tool that predicts and prevents problems before your business is impacted.
- Protect, detect, and remove with built-in security features such as Silicon Root of Trust. Runtime Firmware Validation, and

#### **Overview**

Does your data center need a secure, performance driven dense server that you can confidently deploy for virtualization, database, or high-performance computing? The HPE ProLiant DL360 Gen10 server delivers security, agility and flexibility without compromise. It supports the Intel® Xeon® Scalable processor with up to a 71% performance gain and 27% increase in cores [1], along with 2666 MT/s HPE DDR4 SmartMemory supporting up to 3.0 TB [2] with an increase in performance of up to 66% [3]. With the added performance that 12 NVDIMMs and 10 NVMe bring, the HPE ProLiant DL360 Gen10 means business. Deploy, update, monitor and maintain with ease by

- Secure Recovery.
- Supports Intel® Xeon® Scalable processor with up to 28 cores and memory speeds of up to 2666 MT/s.

automating essential server life cycle management tasks with HPE OneView and HPE iLO 5. Deploy this 2P secure platform for diverse workloads in space constrained environments.

#### **Features**

#### **Industry-leading Performance with Versatile Compute**

HPE ProLiant DL360 Gen10 Server supports industry-standard technology leveraging the Intel Xeon Scalable processor with up to 28 cores, 12G SAS and 3.0 TB of 2666 MT/s HPE DDR4 SmartMemory.

With support for up to 12 NVDIMMs per chassis and 2X capacity of first-generation HPE NVDIMMs, HPE ProLiant DL360 Gen10 Server delivers up to 192 GB per system

Achieve greater capacity with flexible drive configurations with up to 10 SFF and four LFF drives along with an option to support up to 10 NVMe PCIe SSDs delivering enhanced performance, capacity, and reliability to meet various customer segments and workload requirements at the right economics.

HPE Persistent Memory, the world's first non-volatile DIMM (NVDIMM) optimized on HPE ProLiant [5], offers up to 20X reduction in database restart time preserving maximum uptime. [4]

#### **Innovative Design for Flexibility and Choice**

The premium 10 SFF NVMe chassis backplane provides the ability to mix and match SAS/SATA and NVMe within the same chassis along with 8 + 2 SFF and 4 LFF chassis that supports new uFF and M.2 storage options.

Embedded 4x 1GbE along with HPE FlexibleLOM or PCIe standup 1GbE, 10GbE, or 25GbE adapters provides flexibility of networking bandwidth and fabric so you can adapt and grow to changing business needs.

Unmatched expandability is packed in a dense 1U rack design with up to three PCIe  $3.0 \ \text{slots}.$ 

#### **Security Innovations**

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.

Millions of lines of firmware code run before the server OS boots and with Runtime Firmware Verification, enabled by HPE iLO Advanced Premium Security Edition, the server firmware is checked every 24 hours verifying validity and credibility of essential system firmware.

Secure Recovery allows server firmware to roll back to the 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 server and securely stores artifacts used to authenticate the server platforms while the Intrusion Detection Kit logs and alerts when the server hood is removed.

#### **Industry-Leading Serviceability and Deployment**

HPE ProLiant DL360 Gen10 Server comes with a complete set of services offered by HPE Pointnext, delivering confidence, reducing risk, and helping customers realize agility and stability.

Services from HPE Pointnext simplifies the stages of the IT journey. Advisory and Transformation Services professionals understand customer challenges and design an enhanced solution. Professional Services enables rapid deployment of solutions and Operational Services provides ongoing support.

Services provided under Operational Services include - HPE Flexible Capacity, HPE Datacenter Care, HPE Infrastructure Automation, HPE Campus Care, HPE Proactive Services and multi-vendor coverage.

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

# **Technical specifications**

## **HPE ProLiant DL360 Gen10 Server**

Processor family	Intel® Xeon® Scalable 8100 series Intel® Xeon® Scalable 6100 series Intel® Xeon® Scalable 5100 series Intel® Xeon® Scalable 4100 series Intel® Xeon® Scalable 3100 series
Number of processors	2, maximum depending on model
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, depending on model
Processor cache	8.25 MB L3 11.00 MB L3 13.75 MB L3 16.50 MB L3 19.25 MB L3 22.00 MB L3 24.75 MB L3 27.50 MB L3 30.25 MB L3 33.00 MB L3 35.75 MB L3 38.50 MB L3
Processor speed	3.6 GHz
Power supply type	2 Flex Slot
Expansion slots	3, for detailed descriptions refer to the QuickSpecs
Maximum memory	3.0 TB with 128 GB DDR4
Memory slots	24 DIMM slots
Memory type	HPE DDR4 SmartMemory
System fan features	Hot-plug redundant standard
Network controller	HPE 1 Gb 331i Ethernet adapter 4-ports per controller and/or optional HPE FlexibleLOM, depending on model
Storage controller	1 of the following, depending on model HPE Smart Array P408i-a SR Gen10 Controller or HPE Smart Array P816i-a SR Gen10 Controller or HPE Smart Array E208i-a SR Gen10 Controller
Minimum dimensions ( H x W x D)	43.46 x 70.7 x 4.29 cm
Weight	13.04 kg minimum 16.27 kg maximum
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 (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

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



#### **HPE Pointnext**

**HPE Pointnext** leverages our breadth and depth of technical expertise and innovation to help to accelerate digital transformation. A comprehensive portfolio that includes—Advisory, Professional, and Operational Services is designed to help you evolve and grow today and into the future.

#### **Operational Services**

- HPE Flexible Capacity is a new consumption model to manage on-demand capacity, combining the agility and economics of public cloud with the security and performance of on-premises IT.
- **HPE Datacenter Care** offers a tailored operational support solution built on core deliverables. It includes hardware and software support, a team of experts to help personalize deliverables and share best practices, as well as optional building blocks to address specific IT and business needs.
- HPE Proactive Care is an integrated set of hardware and software support including an enhanced call experience with start to finish case management helping resolve incidents quickly and keeping IT reliable and stable.
- HPE Foundation Care helps when there is a hardware or software problem offering several response levels dependent on IT and business requirements.

**Advisory Services** includes design, strategy, road map, and other services to help enable the digital transformation journey, tuned to IT and business needs. Advisory Services helps customers on their journey to Hybrid IT, Big Data, and the Intelligent Edge.

**Professional Services** helps integrate the new solution with project management, installation and startup, relocation services, and more. We help mitigate risk to the business so there is no interruption when new technology is being integrated in the existing IT environment.

[1] Intel measurements: Up to 71% performance increase of Intel Xeon Platinum vs. previous generation E5 v4 average performance based on key industry-standard benchmark calculations submitted by OEMs comparing 2-socket Intel Xeon Platinum 8180 to E5-2699 v4 Family processors. Any difference in system hardware or software design or configuration may affect actual performance. May 2017. Up to 27% performance increase of Intel Xeon Platinum versus previous generation comparing 2-socket Intel Xeon Platinum 8180 (28 cores) to E5-2699 v4 (22 cores). Calculation 28 cores / 22 cores = 1.27 = 27%. May 2017.

[2] Comparing 8 GB NVDIMM to 16 GB NVDIMM equals 2X capacity increase, July 2017.

[3] Percentage compare Gen10 vs Gen9: Gen10 = 12 Channels x 2666 data rate x 8 bytes = 256 GB/sec. Gen 9 = 8 channels x 2400 x 8 bytes = 154 GB/Sec. 256/154 = 1.66 or Gen10 is 66% greater bandwidth, July 2017.

[4] HPE Internal Labs test. HPE Scalable Persistent Memory, restarting 1000 GB Hekaton Database is as fast as restarting 200 GB database or 20x, March 31, 2017.

[5] HPE 8 GB and 16 GB NVDIMMs are the first NVDIMMs supported on HPE ProLiant Gen9 and Gen10 servers.





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