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# HPE ProLiant DL380 Gen10 Server

# **ProLiant DL Servers**



### What's new

- Security through firmware and optional chassis intrusion options
- HPE performance leadership with Persistent
  Memory
- HPE innovation with Intelligent System Tuning
- Modular chassis with greater drive capacity and flexibility
- Supports Intel<sup>®</sup> Xeon<sup>®</sup> Processor Scalable Family

### Overview

What is your server bottleneck...storage, compute, expansion?

The world's best-selling server [1] just got better. The HPE ProLiant DL380 Gen10 Server delivers the latest in security, performance and expandability. While backed by a comprehensive warranty, makes it ideal for any server environment. Standardize on the industry's most trusted compute platform.

The HPE ProLiant DL380 Gen10 Server is securely designed to reduce costs and complexity, the Intel® Xeon® Processor Scalable

Family with up to a 71% performance gain and 27% increase in cores [2], plus the HPE 2666 MT/s DDR4 SmartMemory supporting 3.0 TB [6] and up to 11% [3] faster than 2400 MT/s. It supports 12 Gb/s SAS, and up to 20 NVMe drive plus a broad range of compute options. HPE Persistent Memory, optimized on HPE ProLiant Servers, offers unprecedented levels of performance for databases and analytic workloads. Run everything from the most basic to mission critical applications, and deploy with confidence.

#### Features

# Flexible Design Making Your Investment Expand As Your Business Needs Grow

The HPE ProLiant DL380 Gen10 Server has an adaptable chassis, including new HPE modular drive bay configuration options with up to 30 SFF, up to 19 LFF or up to 20 NVMe drive options along with support for up to 3 double wide GPU options.

HPE Persistent Memory, delivers unprecedented levels of performance and data resiliency for databases and analytic workloads. With up to 27x faster [4] application checkpoint operations and 20x faster [5] restores, HPE delivers the fastest persistent memory in the market at TB-scale.

In conjunction with the embedded SATA HPE Dynamic Smart Array S100i Controller for boot, data and media needs, the redesigned HPE Smart Array Controllers allow you the flexibility to choose the optimal 12 Gb/s controller most suited to your environment, and operate in both SAS and HBA mode.

Along with an embedded 4x1GbE, you have a choice of HPE FlexibleLOM or PCIe standup adapters which offer a choice of networking bandwidth (1GbE to 40GbE) and fabric so you can adapt and grow to changing business needs.

Supporting a wide range of operating environments from Azure to Docker to ClearOS in addition to traditional OSes.

#### **Security Innovations**

Only Hewlett Packard Enterprise offers industry standard servers with major firmware anchored directly into the silicon. With security protection built in across the server life-cycle starting with Silicon Root of Trust.

Millions of lines of firmware code run before server operating system boots and with Run-Time Firmware Validation, 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 the server and securely store artifacts used to authenticate the server platforms while the Intrusion Detection kit logs and alerts when the server hood is removed.

#### **World-Class Performance**

HPE innovation with Intelligent System Tuning optimizes workload performance using customized profiles to tune internal resources, with improved throughput for all workloads including latency-sensitive workloads such as high-frequency trading with jitter smoothing.

The HPE ProLiant DL380 Gen10 Server supports industry standard technology leveraging the latest Intel® Xeon® Processor Scalable Family with up to 28 cores, 12 Gb SAS and 3.0 TB [6] of HPE DDR4 SmartMemory.

The HPE ProLiant DL380 Gen10 supports up to three double wide or five single wide GPUs for workload acceleration.

#### **Industry Leading Services and Ease of Deployment**

The HPE ProLiant DL380 Gen10 Server comes with a complete set of HPE Technology Services, delivering confidence, reducing risk and helping customers realize agility and stability.

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

Services provided under Operational Services include: Flexible Capacity, Datacenter Care, Infrastructure Automation, Campus Care, 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 DL380 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	1 or 2	
Processor core available	28 or 26 or 24 or 22 or 20 or 18 or 16 or 14 or 12 or 10 or 6 or 4	
Processor cache	825 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 35.75 MB L3	
Processor speed	3.6 GHz, maximum depending on processor	
Power supply type	2 Flexible Slot power supplies, maximum depending on model	
Expansion slots	8, for detail descriptions reference the QuickSpecs	
Maximum memory	3.0 TB with 128 GB DDR4 [6]	
Memory slots	24 DIMM slots	
Memory type	HPE DDR4 SmartMemory	
System fan features	Hot-plug redundant fans, standard	
Network controller	HPE 1 Gb 331i Ethernet adapter 4-ports per controller and/or optional FlexibleLOM, depending on model	
Storage controller	1 HPE Smart Array S100i and/or 1 HPE Smart Array P408i-a and/or 1 HPE Smart Array P816i-a and/or 1 HPE Smart Array E208i-a, depending on model	
Minimum dimensions (W x D x H)	44.55 x 73.03 x 8.74 cm	
Weight	14.76 kg	
Infrastructure management	HPE iLO Standard with Intelligent Provisioning (embedded), HPE OneView Standard (requires download) (standard) HPE iLO Advanced, HPE iLO Advanced Premium Security Edition, and HPE OneView Advanced (optional)	
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	

## Digital data sheet

Drive type	8 or 12 LFF SAS/SATA/SSD 8, 10, 16, 18 or 24 SFF SAS/SATA/SSD 6 SFF rear drive optional or 3 LFF rear drive optional and 2 SFF rear drive optional 20 SFF NVMe optional NVMe support via Express Bay will limit maximum drive capacity
Processor	Intel
Form factor	20
Graphics	Choice of up to 3 double wide GPGPUs, or 5 single wide GPGPUs

#### Additional resources

QuickSpecs

hpe.com/h20195/v2/GetDocument.aspx?

docname=a00008180enw

### **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 evolve and grow today and into the future.

#### **Operational Services**

- 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 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 Foundation Care helps when there is a hardware or software problem offering several response levels dependent on IT and business requirements.
- **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.

**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] With one HPE ProLiant Server shipping every 14.6 seconds and more than 39.3 million sold, HPE ProLiant Servers are the undisputed market share leader. CO3'16 IDC Server Tracker

[2] 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 vs. previous generation comparing 2-socket Intel Xeon Platinum 8180 (28 cores) to E5-2699 v4 (22 cores). Calculation 28 cores/22 cores = 127 = 27%. May 2017.

[3] The Gen10 2666 MT/s memory speed is 11% faster than that of Gen9 2400 MT/s, enabling faster server performance

[4] TPC-C Benchmark Throughput with Checkpoint (trans/sec). Calculated Time to Checkpoint and Restore a Docker Container running MySQL, compare Persistent memory vs. SSD, November 2016.

[5] 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.

[6] Coming in second half of 2017



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