

HPE ProLiant DL580 Gen9 Server

ProLiant DL Servers



What's new

- Intel E7-4800/8800 v4 processor family offers unparalleled versatility across diverse workloads
- HPE DDR4 2400 MHz Memory modules for faster performance with data-intensive application workloads
- HPE 25 Gigabit Ethernet (25GbE) Network Adapters have the breakthrough performance you need at 2.5X increase over previous generation 10GbE and a lower overall cost for scalability to 100 Gbps
- HP Trusted Platform Module (TPM) 2.0

Overview

Does your business demand fast insights, support for increased number of users and uncompromised availability?

The HPE ProLiant DL580 Gen9 Server is the 4S enterprise standard x86 server offering commanding performance, rock-solid reliability and availability, and compelling consolidation and virtualization efficiencies.

Supporting Intel® Xeon® E7-4800/8800 v4/v3 processors, the DL580 Gen9 Server offers enhanced processor performance, up to 6 TBs of memory, greater IO bandwidth (9 PCIe Gen 3.0 slots), and 12 Gb/s of SAS speeds. The DL580 Gen9 Server has security and data protection features for system resiliency that your business can depend on. All, making it ideal for mission-

prevents unauthorized access to servers and securely store artifacts used to authenticate the server platforms

critical enterprise, business intelligence, and database applications.

Whether needed for highly virtualized or cloud based deployments, with intelligence and simplicity of automated management with HPE OneView and HPE iLO4 your business can achieve agile and lower cost infrastructure management.

Features

Commanding Performance and Scalability

The HPE ProLiant DL580 Gen9 Server provides up to 26% [1] increased processor performance with Intel Xeon E7-4800/8800 v4/v3 processors than the previous generation.

HPE SmartMemory prevents data loss and downtime with enhanced error handling. Support of up to 6 TB DDR4 max capacity (96 DIMM slots) with speeds up to 2400MHz with up to 23% [2] performance gain. Ideal for large-scale in-memory computing and virtualization.

Comes standard with nine FL/FH PCIe 3.0 slots for GPGPUs and choice of HPE FlexibleLOM or PCIe standup 1GbE, 10GbE or InfiniBand Adapters provide you flexibility of networking bandwidth and fabric so you can adapt and grow to changing business needs.

Faster access to your data with the redesigned HPE Flexible Smart Array and HPE Smart SAS HBA Controllers allow you the flexibility to choose the optimal 12 Gb/s SAS controller most suited to your environment. Additional support for HPE NVMe Mixed Use and Write Intensive PCIe Workload Accelerators.

Rock-solid Availability and Reliability

The HPE ProLiant DL580 Gen9 Server provides increased system availability and less need for service with advanced error recovery, error diagnosis, and built-in redundancy; all features of the DL580 Server Comprehensive Fault Management and Diagnostics.

Improved reliability and data protection with HP Smart Array Controllers featuring HPE Secure Encryption and Advanced Data Mirroring, and HPE SmartDrive technology.

Increased security with four new levels of Secure Boot [3] with Unified Extensible Firmware Interface (UEFI) mode.

HPE Proactive Care Services helps customers prevent problems before they occur by integrating uptime and productivity into a personalized, simplified support experience.

Compelling Agility and Efficiencies for Scale-up Environments

The HPE ProLiant DL580 Gen9 Server supports improved ambient temperature ASHRAE A3 and A4 [4] standards helping to reduce your cooling expenses.

High efficiency redundant HPE Common Slot Power Supplies up 4x 1500W provide up to 94% efficiency (Platinum Plus), infrastructure power efficiencies with -48VDC input voltages and support for HPE Power Discovery Services.

Customer-inspired and easily accessible features include: front access processor/memory drawer for ease of serviceability, hot pluggable fans and drives, optional SID for health and monitoring of components and Quick Reference code for quick access to product information.

Agile Infrastructure Management for Accelerating IT Service Delivery

With HPE ProLiant DL580 Gen9 Server, HPE OneView provides infrastructure management for automation simplicity across servers, storage and networking.

Online personalized dashboard for converged infrastructure health monitoring and support management with HP Insight Online.

Configure in Unified Extensible Firmware Interface (UEFI) boot mode, provision local and remote with Intelligent Provisioning and Scripting Toolkits.

Embedded management to deploy, monitor and support your server remotely, out of band with HPE iLO and optimize firmware and driver updates and reduce downtime with Smart Update Solutions, consisting of SUM (Smart Update Manager) and SPP (Service Pack for ProLiant).

Technical specifications

HPE ProLiant DL580 Gen9 Server

Processor family	Intel® Xeon® E7-8800 v3 product family Intel® Xeon® E7-4800 v3 product family Intel® Xeon® E7-8800 v4 product family Intel® Xeon® E7-4800 v4 product family
Number of processors	4 or 3 or 2
Processor core available	24 or 22 or 20 or 18 or 16 or 14 or 12 or 10 or 8 or 4
Processor cache	60MB L3 55MB L3 50MB L3 45MB L3 40MB L3 35MB L3 30MB L3 25MB L3 20MB L3
Processor speed	3.2GHz
Form factor (fully configured)	4U
Form factor chassis	Rack
Power supply type	(4) Common Slot
Expansion slots	(9) Maximum - For detail descriptions reference the QuickSpecs
Memory, maximum	6TB
Memory slots	96 DIMM slots Maximum
Memory type	DDR4 SmartMemory
Memory protection features	MCA Recovery Execution Path Patrol and Demand Scrubbing Memory Lock Step Mode Memory Online Spare Mode Advanced ECC and DIMM Address/Parity Protection
Drive description	(10) SFF SAS/SSD NVMe support via Express Bay will limit max drive capacity
Included hard drives	(10) SFF SAS/SSD NVMe support via Express Bay will limit max drive capacity
System fan features	Hot plug redundant standard
Network controller	10Gb 534FLR-SFP+ FlexFabric Adapter 2 Ports per controller or 1Gb 331FLR Ethernet Adapter 4 Ports per controller Depending on model
Storage controller	Smart Array P830i/2GB FBWC or Smart Array P830i/4GB FBWC Depending on model
Infrastructure management	iLO Management (standard), Intelligent Provisioning (standard), HP OneView Advanced (standard) iLO Management (standard), Intelligent Provisioning (standard), iLO Advanced (optional), HP OneView Advanced (optional), HP Insight Control (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://h18004.www1.hp.com/products/servers/platforms/warranty/index.html> Additional HP 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.hp.com/support>

Additional resources**QuickSpecs**

hpe.com/h20195/v2/GetDocument.aspx

[?docname=c04601208](http://hpe.com/h20195/v2/GetDocument.aspx?docname=c04601208)

HPE Services

Let HPE help guide you to the New Style of Business.HPE Technology Services delivers confidence, reduces risk, and helps you realize greater agility and stability.hpe.com/services

- HPE implementation and installation services enable faster, more reliable startup of your new ProLiant Gen9 servers, and our support portfolio allows you to get connected and get back to business fast.
- HPE Foundation Care provides a choice of coverage levels and response times for hardware and software support.
- We recommend HPE Proactive Care for ProLiant servers to prevent issues and resolve problems quickly and efficiently.
- HPE Datacenter Care enables you to operate and evolve your IT environment at a lower cost and with more agility, including our Flexible Capacity Service to acquire IT without impacting capital budget.
- Our support technology lets you tap into the knowledge of millions of devices and thousands of experts to stay informed and in control, anywhere, any time.
- Our Consulting services provide advice and guidance to safely move your workloads to newer technologies

[1] Intel internal measurements. comparing measurements on platform with two E7-8800 v3 vs E7-8800 v4.

[2] up to 23% better performance is based on similar capacity DIMM running on HPE server compared to a non HPE server with DDR4. HPE internal labs estimate, March 2016.

[3] Secure Boot authentication inclusive of all UEFI Drivers, any UEFI applications, OS Bootloaders and Linux Kernel Modules. HP Labs, Houston, TX, July 2014

[4] Please see www.hpe.com/servers/ASHRAE for details.

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