

# HP ProLiant DL580 Gen8 Server



Unleash the power of your business data



**Breakthrough performance, reliability, and efficiency for your most demanding, data-intensive workloads:**

- Business processing (enterprise resource planning and customer relationship management)
- Business Intelligence
- Databases
- Consolidation and virtualization
- Technical compute workloads

**Key technology trends**

- In-memory computing for accelerating data analytics
- In-server flash storage for accelerating data processing
- Co-processors (e.g., general purpose graphics processing units for accelerating technical compute)
- Maximum memory and I/O scalability for application consolidation
- Advanced error recovery techniques for even greater levels of uptime
- Automated system management for faster time-to-value and shifting focus from maintenance to innovation

## Does your enterprise data center demand uncompromised performance and cutting-edge resiliency at a lower total cost of ownership?

The HP ProLiant DL580 Gen8 Server is an enterprise-grade four-socket (4S) x86 server offering breakthrough performance, rock-solid reliability, and compelling consolidation and manageability efficiencies. It is the ideal choice for mission-critical enterprise, business intelligence, and database applications.

Featuring Intel® Xeon® E7-4800/8800 v2 processors, the HP ProLiant DL580 Gen8 offers 2.3X performance with enhanced processor performance, more memory slots (96 DIMMs), greater I/O bandwidth (9 PCIe Gen3.0 slots), and increased storage performance (12 Gbps SAS). In addition, HP ProLiant DL580 Gen8 has security and data protection features for system resiliency that your business can depend on. Unique features such as HP Advanced Error Recovery and HP Memory Quarantine increase memory and processor reliability by over 30 percent. With intelligent manageability provided by embedded HP Integrated Lights-Out (iLO 4) capabilities, integrated management through HP OneView and an array of customer-inspired features, you realize faster, lower cost infrastructure management.

## Optimized for the next-generation of scale-up x86 computing

**Key industry trends**

While each industry has a unique set of business drivers, every company must define a plan of action for handling today's top market trends.

**Data explosion**

Gathered from a wide variety of sources—structured, unstructured, and semi-structured—Big Data is a big deal. And it continues to get bigger. In fact, many organizations' Big Data is too big to process and manage using traditional data processing solutions.

### **Real-time insight**

Today, the time is now for just about everything. There's no time to wait for quarterly reports or even monthly reviews. Businesses need easy access to real-time insight gleaned from complete, accurate, up-to-date information.

### **Always-On**

The global marketplace never sleeps. And neither should your business. To remain Always-On, companies of all sizes need highly reliable IT infrastructure that keeps systems and apps up and available, no matter what.

### **Accelerated innovation**

Every company is looking for "the next best thing" before the competition discovers it. Defining the next best product, service, solution, or system requires dedicated think-time from workers.

## **Key features and benefits**

### **Blazing-fast results on your most demanding applications**

- 2.3X performance
- 1.5X memory slots
- 2.7X I/O bandwidth
- 2X storage performance
- 1.2X internal SSD bays

### **Reliability your business can depend on**

Building on the heritage of unprecedented reliability, HP ProLiant DL580 Gen8 Server includes cutting-edge reliability, availability, serviceability (RAS) features that improve your systems' availability:

- HP Advanced Error Recovery
- HP Memory Quarantine
- HP Advanced Error Containment
- HP Advanced Fault Resiliency
- HP Advanced Event Detection and Reporting
- HP Qualified Options

### **Compelling efficiencies**

- Data center savings through consolidation
- Software licensing cost savings
- Class-leading manageability for exceptional time- and cost-saving benefits

### **Breakthrough 4S performance and scalability for blazing-fast results on your most demanding applications**

- Up to 2.3X system performance and 50 percent more cores with Intel Xeon E7-4800/8800 v2 processors to speed up your mission-critical enterprise, business intelligence, and database applications.
- 1.5X memory slots (96 DIMMs) for large-scale, in-memory computing and virtualization.
- 2.7X I/O bandwidth with 9 PCIe Gen3 I/O slots including 5 x 16 FL/FH slots for greater PCIe flash storage or co-processor cores.
- 2X SSD performance with 12 Gbps HP Smart Array SAS Controllers and 1.2X higher internal storage capacity providing faster access to more data.

### **Leading x86 availability and rock-solid reliability your business can depend on**

- 30 percent fewer memory- and processor-based outages with HP Advanced Error Recovery and HP Memory Quarantine.
- Increased system availability with HP Advanced Error Containment, HP Advanced Fault Resiliency, and HP Advanced Event Detection and Reporting.
- Improved reliability and 1,000X safer data protection with HP Smart Array Controller featuring 4G cache, Advanced Data Mirroring, and HP SmartDrive technology.
- Increased security with support for Unified Extensible Firmware Interface (UEFI) mode, Secure Boot, HP Secure Encryption, and Intel® Secure Key.
- Industry-leading performance, uptime, and productivity integrated into a personalized, simplified support experience with HP Proactive Care Support Services.

### **Compelling efficiencies with intelligent manageability and scale-up consolidation**

- 45 percent lower total cost of ownership with scale-up consolidation efficiencies and lower core, high-frequency processor options for driving down software licensing costs.
- Faster, lower-cost infrastructure management and a single integrated view of your IT infrastructure with HP OneView.
- 3X faster administrative updates with 93 percent less downtime and 69 percent less operator time using industry-leading maintenance tools with HP Smart Update Manager.
- Comprehensive embedded manageability with HP iLO 4, HP Smart Update Manager (SUM), HP Agentless Management, HP Active Health System, HP Intelligent Provisioning, and HP Embedded Remote Support.
- Customer-inspired features such as Flexible LAN-on-motherboard (LOM) for networking choice, front-access processor/memory drawer for ease of serviceability, and quick response (QR) code for quick access to product information.

## Technical specifications



**HP ProLiant DL580 Gen8 Server**

<b>Processor</b>	Intel Xeon E7 4800/8800 v2 product family
<b>Number of processors</b>	4, 3, or 2
<b>Processor cores</b>	15, 12, 10, 8, or 6
<b>Maximum processor speed</b>	3.4 GHz
<b>Memory</b>	Up to 96 DDR3 DIMM slots and 3 TB* DDR3 maximum memory with 32 GB DIMMs
<b>I/O expansion</b>	9 PCI-e Gen3 slots standard (4 x 8 and 5 x 16 slots) <b>Note:</b> Slot availability is dependent on the number of processors installed.
<b>Internal storage</b>	Up to 10 SFF drive slots (12 Gbps SAS)
<b>Storage controller</b>	HP Smart Array P830i/2G FBWC 12 Gbps SAS Controller
<b>Networking</b>	Flexible LOM; choice of 4 x 1GbE, 2 x 10GbE, or 2 x 10 Gb CNA
<b>Power supplies</b>	Up to four 1,500 W or 1,200 W (N+N redundant), 94 percent efficient; common slot
<b>Fans</b>	4 hot plug and redundant; front accessible
<b>Security</b>	Secure Boot, Intel Secure Key, and TPM option
<b>Optical</b>	External USB optical drive (optional)
<b>Other ports</b>	8 USB (2f, 2i, 4r); 2 video (1f, 1r); 3/5 NIC, 1 micro-SD
<b>ROM</b>	UEFI ROM with UEFI mode and legacy mode
<b>System RAS features</b>	HP Advanced Error Recovery, HP Memory Quarantine, HP Advanced Error Containment, HP Advanced Fault Resiliency, HP Advanced Event Detection and Reporting, and HP Qualified Options
<b>Server management</b>	HP iLO Management, HP SUM, HP OneView, HP Insight Online
<b>Form factor</b>	4U, Rack
<b>Warranty</b>	3/3/3—Server Warranty includes three years of parts, labor, and on-site support coverage

\* Up to 6 TB with 64 GB DIMMs; available post-launch

## Resources

### QuickSpecs

[HP ProLiant DL580 Gen8 Server Technology White Paper](#)

Customize your IT lifecycle management, from acquisition of new IT, management of existing assets, and removal of unneeded equipment.

[hp.com/go/hpfinancialservices](http://hp.com/go/hpfinancialservices)

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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. [hp.com/go/factoryexpress](http://hp.com/go/factoryexpress)

## HP Services

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