HP ProLiant DL980 G7 Server

Data sheet

Blending mission-critical and industry-standard design principles, the HP ProLiant DL980 G7 Server with HP PREMA Architecture, is an eight-socket, x86 server designed with balanced scalability, self-healing resiliency, and breakthrough efficiencies for the largest and most demanding enterprise-class workloads.

Built to handle the largest x86 enterprise environments with confidence, the HP ProLiant DL980 G7, featuring the PREMA Architecture with Smart CPU Caching and a redundant system fabric, is designed to reduce bottlenecks, improve throughput and performance, as well as deliver enhanced reliability—features not previously available in an x86 environment. Together with the latest eight-core Intel® Xeon® Processor 7500/6500 Series, expandable memory, and HP Integrated Lights-Out 3 (iLO 3) server management software, the DL980 G7 server is an ideal choice for organizations looking for balanced scaling, self-healing resiliency, and breakthrough efficiencies for today's enterprise compute environments.

All-new scale-up x86 workhorse built to perform, scale, and protect

- HP Smart CPU Caching technology enables faster access to local memory and reduces inter-processor communication traffic.
- Self-healing resiliency delivers up to a 200 percent boost in availability[1] to increase application uptime.
- Breakthrough efficiencies deliver payback in as little as 60 days.[2]
- Intel Xeon Processor 7500/6500 Series with up to eight cores per CPU provide the performance required for demanding scale-up applications and virtualization environments.
- 128 DIMM slots are available, for a system maximum of 2 TB of memory (using 16 GB DIMMs), and offer flexible expansion.
- Up to 16 I/O slots support the most I/O-intensive applications.
- Efficient power supplies help reduce power and energy costs.

Key features and benefits

Balanced scaling with Smart CPU Caching technology

- HP Smart CPU Caching technology improves CPU utilization and performance, helping processors to remain focused on the task with less interruption.
- A highly expandable CPU, memory, and I/O capacity allow you to efficiently use computing resources—with HP scalable design—and support up to eight processors and 64 processor cores, as well as 128 DDR3 DIMM slots for a maximum memory of 2 TB.

---

[1] Based on System crash rates comparison between the DL980 G7 to the DL785 G5. System crash rate is determined by availability features such as hot-swap components, redundant paths, ECC, and tolerant links such as QPI.

[2] Based on calculations done through our internal ROI calculators using latest SPECpower estimates.

Increase application uptime with self-healing resiliency

- Stay up and running with VM isolation, using the "poison-and-recover" technology within the processor to isolate and contain bad data to specific applications or virtual machines (VMs).

- Enhance system resiliency in large x86 systems with a redundant system fabric. HP has incorporated link-level retry to retransmit data, to see to it the transmission is complete and without data integrity loss, and spare wire I/O providing redundant paths for data if a link becomes unavailable.

- Benefit from in-depth support with HP expertise and leadership in mission-critical support and services.

Breakthrough efficiencies deliver payback in as little as 60 days

- With a consolidation ratio of 197:1 consolidate multiple systems onto a single server workhorse and reduce the number of systems that need to be managed and maintained.[3]

- Reduce, reclaim, and extend the life of your data center with HP Thermal Logic technologies.

- Aggressively respond with HP iLO3 (part of Insight Control) remote console management that operates 8x faster than the previous version.

- Upgrade to 10-Gigabit networking on the DL980 G7 server with the cost-effective HP NC524SFP Dual Port 10GbE Module. This high-performance upgrade module combines the latest 10-Gigabit silicon and dual ports with connectivity to both copper and fiber-optic networks.

- Achieve easy integration and management and reduce management complexity with familiar industry-leading ProLiant tools.

- Benefit from the depth and breadth of our partner relationships to speed time to deployment.

Unleash the power of remote management

HP Insight Control software is essential server management software that helps deploy servers quickly, proactively manage the health of virtual or physical servers, improve power consumption, and take complete remote control from almost anywhere.

- HP Integrated Lights-Out 3 (iLO 3) is a standard component of the HP ProLiant DL980 G7 Server that facilitates server health and remote server manageability. Because it includes an intelligent microprocessor, secure memory, and a dedicated network interface, iLO 3 is independent of the host server and its operating system.

- Insight Control helps you manage HP servers running Microsoft® Windows®, Linux, VMware, and Citrix XenServer environments. In addition, you can integrate Insight Control with leading third-party enterprise management consoles, such as Microsoft System Center and VMware vCenter Server.

For more information about HP Insight Control and Integrated Lights-Out 3 (iLO 3) for ProLiant features, visit **www.hp.com/go/insightcontrol**

Lay the foundation of a converged infrastructure

- **Complete portfolio:** HP offers a complete portfolio of standards-based integrated solutions and services developed specifically to solve the complexities of data centers. Offered as common building blocks for a converged infrastructure, HP servers set the standard in ease of management, energy efficiency, and better return on investment (ROI).

- **HP ProLiant innovation:** HP is accelerating innovation with a new level of automation, simplicity, interoperability, and integration solutions that enable data centers to meet the growing demands of businesses. HP innovative solutions help in transforming IT environments into highly automated, virtualized data centers. These solutions are designed to dramatically reduce maintenance and operational costs—while at the same time increasing agility, computing power, and data capacity.

Ideal environments

The DL980 G7 server—our newest scale-up x86 model—is designed for balanced scaling, self-healing resiliency, and breakthrough efficiencies. That makes it the right choice for enterprise-class database, consolidation, and virtualization environments that need:

- Outstanding performance and scalability

- Mission-critical resiliency

- Consolidation and virtualization flexibility and efficiencies

- Easy integration and management, with all the familiar industry-leading ProLiant tools and accessories

---

[3] Based on calculations done through our internal ROI calculators using latest SPECpower estimates.

Technical specifications

HP ProLiant DL980 G7 Server

Processor and memory	
Chipset	Intel Xeon 7500/6500 series chipset
Processor type	Intel Xeon 7500/6500 series processors
Number of processors	8
Available processors	Intel Xeon X7560 Processor (8C, 2.26 GHz, 24 MB cache, 130W) Intel Xeon X6550 Processor (8C, 2.00 GHz, 18 MB cache, 130W) Intel Xeon E6540 Processor (6C, 2.00 GHz, 18 MB cache, 105W) Intel Xeon E7520 Processor (4C, 1.86 GHz, 18 MB cache, 95W)
Processor core	8, 6, or 4 core
Cache memory	Up to 24 MB per socket
Maximum processor speed	2.26 GHz
Memory type	DDR3 RDIMM
Maximum memory	2 TB
Memory slots	128 DIMM slots
Advanced memory protection	Advanced error checking and correcting (ECC), mirrored memory, and online spare
Drives supported	8 SFF SAS
Expansion slot	Up to 16 slots supported; 5 (full-height and length) slots standard, with optional mezzanine board for an additional 5 or 6 full-height and length slots, and second optional mezzanine board for 5 low profile slots
Network controller	(1) 1GbE NC375i Multifunction 4 Ports
Storage controller	(1) Smart Array P410i Integrated
Deployment	
Form factor	Rack
Rack height	8U
Remote management	HP Integrated Lights-Out 3
Power supply type	Redundant standard on performance models, optional on entry and base models
System fans features	Hot plug fully redundant
Warranty—years(s) (parts/labor/onsite)	3/3/3

HP Financial Services

HP Financial Services provides innovative financing and financial asset management programs to help you cost-effectively acquire, manage, and ultimately retire your HP solutions. For more information, contact your local HP representative or visit:

www.hp.com/go/hpfinancialservices

HP Services

When Technology Works. Business Works

The challenge of virtually every IT organization is similar: To develop and maintain an agile, efficient server infrastructure that delivers the service levels your business needs. HP Technology Services offer a comprehensive portfolio of HP Care Pack Services to help design, deploy, manage, and support your IT environment, enabling cost-effective upgrades to standard warranty with easy-to-buy, easy-to-use support packages.

Minimum recommended HP Care Pack offerings

- 3-year, 4-hour response on site 24-hour x 7-day coverage, hardware support
- Server installation and start up service

Related HP Care Pack Service offerings

- 3-year, Support Plus 24: 24-hour x 7-day coverage, integrated hardware and software OS support
- 3-year, Proactive Select delivers flexibly priced consultancy. Purchase service credits and obtain expertise when needed

Benefit from HP Care Pack Services, helping you:

- Reduce deployment time and manage ProLiant server solutions smoothly and efficiently
- Increase uptime and performance of servers availability to your business
- Detect, diagnose, and repair problems to quickly save time, money, and resources

For more information, visit: **www.hp.com/services/proliant** or **www.hp.com/go/proliant/carepack**

To learn how the new HP ProLiant DL980 G7 Server can provide you with an ideal combination of performance, resiliency, and efficiency for demanding, data-intensive workloads, visit: **www.hp.com/servers/dl980-g7**

Share with colleagues

Get connected
www.hp.com/go/getconnected

Current HP driver, support, and security alerts delivered directly to your desktop