



# HP ProLiant DL980 G7 Server



**For your largest and most demanding enterprise-class workloads you can rely on the HP ProLiant DL980 Server with the HP PREMA Architecture. This award-winning,<sup>1</sup> scale-up x86 system blends business-critical and industry-standard design principles into an eight-socket x86 workhorse designed for balanced scaling, self-healing resiliency, and breakthrough efficiencies.**

Now you, too, can reduce bottlenecks, improve throughput and performance, and deliver enhanced reliability in an x86 environment—with the HP ProLiant DL980 G7, featuring the HP PREMA Architecture with Smart CPU caching and a resilient system fabric. Together with 10-core Intel® Xeon® Processor E7-family and 7500 series, expandable memory (up to 4 TB), and HP Integrated Lights-Out 3 (iLO 3) server management software, it's no wonder the DL980 was the first x86 server to cross the 25,000 users for SAP two-tier Sales and Distribution Standard Application benchmark.<sup>2</sup> So, if you are looking to design your IT environment with balanced scaling, self-healing resiliency, and breakthrough efficiencies, then the DL980 Server is an ideal choice.

## **Scale-up with the x86 workhorse built for extreme performance, scalability, and resiliency**

- Boost system availability by as much as 200 percent<sup>3</sup> with the HP PREMA Architecture, which enables extreme performance with reduced inter-processor communication traffic—all at a fraction of the price.<sup>4</sup>
- Provide the performance users demand in scale-up applications and virtualization environments with the Intel Xeon Processor E7-family and 7500 series with up to 10 cores per CPU.
- Expand to suit your needs with 128 DIMM slots, for a system maximum of 4 TB of memory (using 32 GB DIMMs).
- Support the most I/O-intensive applications with up to 16 I/O slots.
- Reduce your power and energy costs with efficient power supplies.

---

<sup>1</sup> The HP ProLiant DL980 G7 captured SearchDataCenter.com's Gold computing hardware Product of the Year award for 2010 and 2011.

<sup>2</sup> Based on the two-tier SAP Sales and Distribution (SD) standard application benchmark.

<sup>3</sup> 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, resilient paths, ECC, and tolerant links such as QPI.

<sup>4</sup> Based on the TPC-H price performance per query results for non-clustered systems @ 3000 GB.

---

## HP PREMA Architecture: Features and benefits

### Balanced scaling with the HP Smart CPU caching technology

- Improve your CPU utilization and performance with HP Smart CPU caching technology, which ensures processors remain on task with less interruption, resulting in up to 1.8x linear scaling.<sup>5</sup>
- Efficiently use computing resources—with scalable CPU, memory, and I/O capacity that allow you to support up to eight processors and 80 processor cores and 160 logical processors, as well as 128 DDR3 DIMM slots for a maximum memory of 4 TB.

### Increased application uptime with self-healing resiliency

- Enhance system availability in large x86 systems with a resilient system fabric. HP PREMA Architecture incorporates link level retry to retransmit data and spare wire I/O, to confirm data transmission is complete and without data integrity loss.
- Improve system reliability with estimated reduction in memory error failure by 10x using Double Device Data Correction compared to systems using Single Device Data Correction (SDDC).<sup>6</sup>
- 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<sup>7</sup>

- Reduce the number of systems to manage by consolidating multiple larger workload systems onto a single server workhorse.
- Reduce, reclaim, and extend the life of your data center with HP Thermal Logic technologies.
- Reduce management complexity with familiar, industry-leading ProLiant tools and achieve easy integration and management.
- Respond aggressively to issues with HP iLO 3 (part of HP Insight Control) remote console management that operates 8x faster than the previous version.
- Hasten deployment by leveraging our partner relationships.
- Upgrade to 10-Gigabit networking with the cost-effective HP NC524SFP or HP NC523SFP Dual Port 10GbE Module. The HP NC524SFP high-performance upgrade module combines the latest 10-Gigabit silicon and dual ports with connectivity to both copper and fiber optic networks. The HP NC523SFP Dual Port includes enhanced performance and reduced power requirements with latest 10GbE Networking from QLogic.

### Unleash the power of remote management

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

- HP 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 iLO 3 for ProLiant features, visit [hp.com/go/insightcontrol](http://hp.com/go/insightcontrol).

### Lay the foundation of a Converged Infrastructure

- Solve the complexities in your data center with the complete portfolio of standards-based integrated solutions and services from HP. HP servers set the standard in ease of management, energy efficiency, and better return on investment (ROI).
- Transform your IT environment into a highly automated, virtualized data center that meets the growing demands of business. Our HP ProLiant innovations will accelerate you to this new level of automation, simplicity, interoperability, and integration, because we design our solutions to dramatically reduce maintenance and operational costs—while at the same time increasing agility, computing power, and data capacity.

## Make the right choice

The DL980 G7 server is the ideal choice for your enterprise-class databases, in-memory databases, I/O and memory intensive applications, consolidation, and large virtualization environments that need:

- Extreme performance with near linear scalability
- Advanced resiliency
- Consolidation and virtualization flexibility and efficiencies
- Easy integration and management, with familiar industry-leading ProLiant tools and accessories

Design your environment with the balanced scaling, self-healing resiliency, and breakthrough efficiencies of the HP ProLiant DL980 server.

---

<sup>5</sup> Based on the two-tier SAP Sales and Distribution (SD) standard application benchmark.

<sup>6</sup> Based on calculations done through our internal ROI calculators using latest SPEC power estimates.

<sup>7</sup> Based on HP internal testing

---

## HP ProLiant DL980 G7 Server



Processor and memory	
<b>Chipset</b>	Intel Xeon Processor E7-family and 7500 series chipset
<b>Processor type</b>	Intel Xeon Processor E7-family and 7500 series processors
<b>Number of processors</b>	8
<b>Available processors</b>	Intel Xeon E7-4870 Processor (2.40 GHz/10-core/30 MB/130 W) Intel Xeon E7-2860 Processor (2.26 GHz/10-core/24 MB/130 W) Intel Xeon E7-2850 Processor (2.00 GHz/10-core/24 MB/130 W) Intel Xeon E7-2830 Processor (2.13 GHz/8-core/24 MB/105 W) Intel Xeon E7-4807 Processor (1.86 GHz/6-core/18 MB/95 W) Intel Xeon X7560 Processor (8C, 2.26 GHz, 24 MB cache, 130 W) Intel Xeon X6550 Processor (8C, 2.00 GHz, 18 MB cache, 130 W) Intel Xeon E6540 Processor (6C, 2.00 GHz, 18 MB cache, 105 W) Intel Xeon E7520 Processor (4C, 1.86 GHz, 18 MB cache, 95 W)
<b>Processor core</b>	10-, 8-, 6-, or 4-core
<b>Cache memory</b>	Up to 30 MB per socket
<b>Maximum processor speed</b>	2.4 GHz
<b>Memory type</b>	DDR3 RDIMM
<b>Maximum memory</b>	4 TB, with 32 GB DIMMs
<b>Memory slots</b>	128 DIMM slots
<b>Advanced memory protection</b>	DRAM Double Device Data Correction (DDDC), Advanced error checking and correcting (ECC), mirrored memory, and online spare
<b>Drives supported</b>	8 SFF SAS or 8 SSD SAS
<b>Expansion slot</b>	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
<b>Network controller</b>	(1) 1GbE NC375i Multifunction 4 ports
<b>Storage controller</b>	(1) Smart Array P410i Integrated
Deployment	
<b>Form factor</b>	Rack
<b>Rack height</b>	8U
<b>Remote management</b>	HP Integrated Lights-Out 3
<b>Power supply type</b>	Redundant standard on performance models, optional on entry and base models
<b>System fans features</b>	Hot-plug fully redundant
<b>Warranty</b>	3-year parts/3-year labor/3-year on-site

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

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

## 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.

### HP Care Pack Services can help 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: [hp.com/services/proliant](http://hp.com/services/proliant) or [hp.com/go/proliant/carepack](http://hp.com/go/proliant/carepack).

---

## Get connected

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

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

© Copyright 2010–2012 Hewlett-Packard Development Company, L.P. The information contained herein is subject to change without notice. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

Microsoft and Windows are U.S. registered trademarks of Microsoft Corporation. Intel Xeon is a trademark of Intel Corporation in the U.S. and other countries.

4AA1-5671ENW, Created June 2010; Updated May 2012, Rev. 4

