

# HP ProLiant DL585 G7 Server



**Versatile workhorse for the evolving data center**



Are you looking to deploy solutions that meet your business needs in a budget-constrained environment? Get high performance and flexibility with the all-new HP ProLiant DL585 G7 Server—easy on your pocket and ideal for server virtualization, server consolidation, multitiered enterprise applications, and corporate infrastructure applications.

HP continues to raise the bar on technology innovation and engineering excellence. The new HP ProLiant DL585 G7 Server delivers industry-leading efficiencies to reduce costs in both capital as well as operating budgets.

The ProLiant DL585 G7 Server features the latest scale-up AMD Opteron™ 6300/6200 Series processors with up to 16 cores per CPU, and supports up to a 1.5 TB memory footprint and up to 11 PCI Express (PCIe) 2.0 I/O slots (all full length and full height). This perfect balance of a new system architecture, extensive memory capacity, and I/O throughput significantly accelerates virtualization and removes performance bottlenecks. The best part is that the ProLiant DL585 G7 Server is the first server that can pay for itself in as little as 30 days, delivering 4P performance at 2P economics.<sup>1</sup>

To improve power consumption, many HP ProLiant servers now offer new power options, including common slot power supplies. These power supplies come with multiple power ratings that offer the right-sized solution to fit your configuration. This provides improved power delivery and the advantage of reclaiming lost power, which helps maintain high server availability and reduces the cost of downtime. With HP Thermal Logic technologies, you can reduce, reclaim, and extend the life of your data center and triple your data center capacity.<sup>2</sup>

To build an HP Converged Infrastructure, HP offers servers that are designed to increase efficiency, simplify operations, and deliver automated intelligence in highly virtualized environments. Like other recent HP ProLiant servers, the ProLiant DL585 G7 Server is also a part of the HP Converged Infrastructure portfolio, which integrates servers, storage, network devices, and facility resources into a common environment. The ProLiant server enables data centers to respond quickly in an agile business environment. HP ProLiant servers provide modular, standards-based building blocks that help data centers advance toward an HP Converged Infrastructure.

With a wide range of features, the ProLiant DL585 G7 Server delivers higher performance at a lower price, helping you to meet strategic business needs in this competitive environment.

## What's new?

The ProLiant DL585 G7 Server is now available with the following robust and exciting new features:

- Support for new AMD Opteron 6300/6200 Series processor refresh with up to 16 cores per CPU, 16 MB Level 3 cache double data rate 3 (DDR3) synchronous dynamic random access memory (SDRAM) support, and HyperTransport 3.0 links (up to 20.8 GB/s peak bandwidth per I/O channel)
- Next-generation DDR3 memory support—low-voltage DIMMs based on 4 Gb density with more performance, capacity, efficiency, and flexibility
- Flash-backed write cache (FBWC), HP Integrated Lights-Out Advanced (iLO 3), high-efficiency common slot power supplies, integrated storage controller, and PCIe 2.0 expansion slots
- More memory (up to 1.5 TB), and enhanced performance and price, scalability, reliability, and manageability
- Flexible technologies provide customer choice in networking with either a Broadcom or QLogic solution.
- Support for LRDIMM (Load-Reduce DIMM) and Input/Output Memory management unit (IOMMU)

**1** Based on HP internal testing comparing hardware on ProLiant DL360 G4 Servers to ProLiant DL585 G7 Servers

**2** Based on HP internal testing in 2010



## Key features and benefits

### Gain high performance and scalability at a lower price

- **Highly expandable:** Scale up your IT infrastructure as your business grows with the ProLiant DL585 G7 Server, which includes features such as refined I/O expansion capabilities, the latest 16-core AMD processors, and expandable DDR3 memory.
- **Virtualization ready:** Set up or expand virtualization in your data center with 4P architecture, memory up to 1.5 TB, a 10 Gb NIC upgrade option, 11 I/O slots, and industry-leading management solutions.
- **Get more for less:** Deploy high-performance servers equipped with features such as the high-performing AMD Opteron 6300/6200 Series processor, faster memory access, higher network, and I/O bandwidths at an affordable price.

### Breakthrough efficiency and simplicity with industry-leading management solutions

HP Insight Control is essential server management software that unlocks the management capabilities built into your HP ProLiant servers. HP Insight Control helps you deploy ProLiant servers quickly, proactively manage the health of virtual or physical servers, improve power consumption, and take complete control of your network, even from outside the office. HP Insight Control helps in achieving total benefits of \$73,482 for a three-year period per 100 users when deploying all components.<sup>3</sup> HP iLO 3 delivers remote console performance 800 percent faster than iLO 2—so it's as good as being there in person—and 360 percent faster than Virtual Media,<sup>4</sup> so everyday maintenance and deployment can be done in a fraction of the time. HP Insight Control sends alerts from iLO 3 regardless of the state of the host server, and it helps you access advanced troubleshooting features. Now you can manage your data center remotely, significantly reducing the expense for onsite personnel and travel time to server sites.

iLO 3, a standard component of the ProLiant DL585 G7 Server, 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.

<sup>3</sup> Based on HP internal testing comparing to iLO 2. "Gaining Business Value and ROI with HP Insight Control Management Software", IDC white paper sponsored by HP, September 2010.

<sup>4</sup> HP Performance Engineering Team, 2010 benchmark



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).

#### **Improve efficiency, flexibility, and reliability**

- **Lower power usage:** The ProLiant DL585 G7 Server improves performance while keeping power consumption at the same level with features like efficient power supply options, HP Power Advisor, HP Insight Control, and the latest AMD 16-core processor.
- **Fits easily into enterprise deployments and supports all industry-standard operating systems:** The ProLiant DL585 G7 Server provides support for the industry's most popular operating systems, including Microsoft Windows Server, Red Hat Enterprise Linux, SUSE Linux Enterprise Server, and VMware. Also, it is designed to fit into existing enterprise data centers, with support for the full line of HP Smart Array controllers, NICs, and storage options.
- **Built-in reliability and availability:** The ProLiant DL585 G7 Server reduces the cost of downtime with high-availability features such as four hot plug redundant (N+1) fans standard on all models; hot plug common slot power supplies; FBWC; and AMD advanced reliability, availability, and serviceability features.

#### **Lay the foundation of an HP Converged Infrastructure**

- **Complete portfolio:** HP offers a complete portfolio of standards-based, integrated solutions and services developed specifically to solve the complexities of the data center. Offered as common building blocks for an HP Converged Infrastructure, HP servers set the standard in ease of management, energy efficiency, and better return on investment.
- **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 increasing agility, computing power, and data capacity.

## HP ProLiant DL585 G7 Server



<b>Chipset</b>	AMD SR5690/SP5100
<b>Processor type</b>	AMD Opteron 6300 and 6200 Series processors
<b>Number of processors</b>	2 or 4
<b>Available processors*</b>	AMD Opteron 6386SE processor (16 cores, 2.8GHz, 16MB, 140W) AMD Opteron 6380 processor (16 cores, 2.5GHz, 16MB, 115W) AMD Opteron 6378 processor (16 cores, 2.4GHz, 16MB, 115W) AMD Opteron 6376 processor (16 cores, 2.3GHz, 16MB, 115W) AMD Opteron 6366HE processor (16 cores, 1.8GHz, 16MB, 85W) AMD Opteron 6348 processor (12 cores, 2.8GHz, 16MB, 115W) AMD Opteron 6344 processor (12 cores, 2.6GHz, 16MB, 115W) AMD Opteron 6328 processor (8 cores, 3.2GHz, 16MB, 115W) AMD Opteron 6320 processor (8 cores, 2.8GHz, 16MB, 115W) AMD Opteron 6308 processor (4 cores, 3.5GHz, 16MB, 115W) AMD Opteron 6284SE processor (16 cores, 2.7GHz, 16MB, 140W) AMD Opteron 6278 processor (16 cores, 2.4GHz, 16MB, 115W) AMD Opteron 6282 SE processor (16 cores 2.6GHz 16MB 140W) AMD Opteron 6276 processor (16 cores 2.3GHz 16MB 115W) AMD Opteron 6272 processor (16 cores 2.1GHz 16MB 115W) AMD Opteron 6274 processor (16 cores 2.2GHz 16MB 115W) AMD Opteron 6262 HE processor (16 cores 1.6GHz 16MB 85W) AMD Opteron 6238 processor (12 cores 2.6GHz 16MB 115W) AMD Opteron 6234 processor (12 cores 2.4GHz 16MB 115W) AMD Opteron 6220 processor (8 cores 3.0GHz 16MB 115W) AMD Opteron 6212 processor (8 cores 2.6GHz 16MB 115W) AMD Opteron 6204 processor (4 cores, 3.3GHz, 16MB, 115W)
<b>Processor core</b>	16, 12, 8 or 4 cores

## HP ProLiant DL585 G7 Server (Continued)

<b>Cache memory</b>	Up to 16 MB shared L3 cache
<b>Maximum processor speed</b>	3.5 GHz
<b>Memory type</b>	PC3-10600E DDR3
<b>Maximum memory</b>	1.5 TB
<b>Memory slots</b>	48 DIMM slots
<b>Advanced memory protection</b>	Advanced error checking and correcting
<b>Drives supported</b>	Up to 8 hot plug small form factor SAS/SATA/SSD
<b>Expansion slot</b>	Up to 11 FL/FH I/O slots Base: 2 PCIe 2.0 x16, 3 PCIe 2.0 x8 Optional Mezzanines 2 PCIe 2.0 x16, 4 PCIe 2.0 x8 1 PCIe 2.0 x16, 2 PCIe 2.0 x8, 1 PCIe 2.0 x4, 2 PCI-X
<b>Network controller</b> (One of the following depending on Model)	HP NC375i Integrated Quad Port Gigabit Server Adapter <b>Note:</b> Optional Dual Port 10GbE upgrade (replaces two 1G ports) HP Ethernet 1Gb 4-port 331i-SPI Adapter
<b>Storage controller</b>	Smart Array P410i/1 GB FBWC controller Smart Array P410i/512 MB FBWC controller
<b>Form factor</b>	Rack
<b>Rack height</b>	4U
<b>Remote management</b>	HP Integrated Lights-Out 3
<b>Power supply type</b>	Hot plug redundant Common Slot Power Supplies
<b>System fans features</b>	4 hot plug, (N+1) redundancy
<b>Warranty</b>	3-year parts/3-year labor/3-year onsite

\* Processor wattage references reflect average CPU power.



## Ideal environments and applications

The ProLiant DL585 G7 Server is well suited to the following environments:

- Virtualization and consolidation environments
- Multitiered enterprise applications environments
- Performance-intensive environments

The ProLiant DL585 G7 Server is ideal for:

- Web applications
- Mail server applications
- VMware Elastic Sky X (ESX) applications
- Oracle E-Business Suite (EBS) applications
- Microsoft Hyper-V and SQL applications
- System Application Programming (SAP) Enterprise Resource Planning (ERP) applications

## HP Factory Express

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

## Customer technical training

We offer a variety of training courses on storage software, networking, archiving, and disk storage systems. Our classes are available in many delivery modalities—from traditional instructor-led courses at one of our 80 training centers worldwide to online and onsite training. [hp.com/learn/storage](http://hp.com/learn/storage).

## HP Financial Services

HP Financial Services provides innovative financing and financial asset management programs to help you acquire, manage, and ultimately retire your HP solutions. [hp.com/go/hpfinancialservices](http://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, onsite 24x7 coverage, hardware support
- Server installation and startup service

### **Related HP Care Pack Service offerings**

- 3-year, Support Plus 24: 24x7 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 [hp.com/services/proliant](http://hp.com/services/proliant).

### **Learn more**

To understand how to deploy the cost-effective HP ProLiant DL585 G7 Server and gain higher performance, flexibility, and manageability features that help fine-tune your infrastructure, visit [hp.com/servers/dl585-g7](http://hp.com/servers/dl585-g7).

**Sign up for updates**  
[hp.com/go/getupdated](http://hp.com/go/getupdated)



Rate this document

© 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. AMD is a trademark of Advanced Micro Devices, Inc. Oracle is a registered trademark of Oracle and/or its affiliates.

4AA1-5665ENW, December 2012, Rev. 5

