

HP ProLiant DL585 G7 Server

Delivering 4P performance at 2P economics

Data sheet

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, multi-tiered 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 6100 series processors with up to 12 cores per CPU, and supports up to a 512 GB memory footprint and up to 11 PCIe 2.0 I/O slots (all full length/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.¹

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.²

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 6000 series processor refresh with up to 12 cores per CPU, 12 MB L3 cache DDR3 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 PCI Express 2.0 expansion slots
- More memory (up to 512 GB), and enhanced performance/price, scalability, reliability, and manageability
- Up to 11 PCIe 2.0 expansion slots (all full length/full height)—more I/O and network bandwidth
- 10 Gb NIC upgrade option, solid state drives (SSD) option, FBWC, and Trusted Platform Module



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 12-core AMD processors, and expandable DDR3 memory.
- **Virtualization ready:** Set up or expand virtualization in your data center with 4P architecture, memory up to 512 GB, 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 6000 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 remote control of your network, even from outside the office. HP Insight Control reduces operational expenses by \$48,300 per 100 users over three years.³ 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,⁴ 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.

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:

www.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 12-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.

³ Based on HP internal testing comparing to iLO 2. Source: IDC white paper sponsored by HP, "Gaining business value and ROI with HP Insight Control," doc #218069, May 2009

⁴ HP Performance Engineering Team, 2010 benchmark

HP ProLiant DL585 G7 Server



Processor and memory	
Chipset	AMD SR5690/SP5100
Processor type	AMD Opteron 6000 series processors
Number of processors	2 or 4
Available processors*	AMD Opteron 6180 SE processor (12 cores, 2.5 GHz, 12 MB, 105 W) AMD Opteron 6176 SE processor (12 cores, 2.3 GHz, 12 MB, 105 W) AMD Opteron 6176 processor (12 cores, 2.3 GHz, 12 MB, 80 W) AMD Opteron 6174 processor (12 cores, 2.2 GHz, 12 MB, 80 W) AMD Opteron 6172 processor (12 cores, 2.1 GHz, 12 MB, 80 W) AMD Opteron 6168 processor (12 cores, 1.9 GHz, 12 MB, 80 W) AMD Opteron 6164 HE processor (12 cores, 1.7 GHz, 12 MB, 65 W) AMD Opteron 6166 HE processor (12 cores, 1.8 GHz, 12 MB, 65 W) AMD Opteron 6140 processor (8 cores, 2.6 GHz, 12 MB, 80 W) AMD Opteron 6136 processor (8 cores, 2.4 GHz, 12 MB, 80 W) AMD Opteron 6128 processor (8 cores, 2.0 GHz, 12 MB, 80 W) AMD Opteron 6132 HE processor (8 cores, 2.2 GHz, 12 MB, 65 W)
Processor core	12 or 8 core
Cache memory	Up to 12 MB shared L3 cache
Maximum processor speed	2.6 GHz
Memory type	PC3-10600E DDR3
Maximum memory	512 GB
Memory slots	48 DIMM slots
Advanced memory protection	Advanced error checking and correcting
Drives supported	Up to 8 hot plug small form factor SAS/SATA/SSD
Expansion slot	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
Network controller	HP NC375i Quad Port 1 GbE Multifunction NIC; optional Dual Port 10 GbE upgrade
Storage controller	Smart Array P410i/1 GB FBWC controller Smart Array P410i/512 MB FBWC controller
Deployment	
Form factor	Rack
Rack height	4U
Remote management	HP Integrated Lights-Out 3
Power supply type	Hot plug redundant Common Slot Power Supplies
System fans features	4 hot plug, (N+1) redundancy
Warranty	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
- Multi-tiered 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. www.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/or onsite training. www.hp.com/learn/storage

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: www.hp.com/servers/dl585-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, 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: www.hp.com/services/proliant

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. www.hp.com/go/hpfinancialservices

Share with colleagues



Get connected

www.hp.com/go/getconnected

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

© Copyright 2010–2011 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.

