



HP ProLiant DL370 G6 Server



HP ProLiant ML370 G6 Server

HP ProLiant DL370 G6 and HP ProLiant ML370 G6 Servers

Data sheet

Enhance data center efficiency and get better return for your budget with the HP ProLiant DL370 G6 (4U optimized rack) and the HP ProLiant ML370 G6 (4U expandable tower) servers.

Data centers have grown in size and complexity, and are characterized more by diversity than standardization. This means that your IT administrators have more on their hands than ever before. As they struggle to enhance data center efficiency they also need to rein in rising power costs.

The HP ProLiant DL370 G6 and the HP ProLiant ML370 G6 servers help strike that balance. HP Insight Control suite with the new Dynamic Power Capping technology can triple¹ the capacity of the data center and tailor the power supply to the desired configuration. Talking about efficiency, both the DL370 G6 and the ML370 G6 offer the broadest line up of Intel's latest processors—Intel® Xeon® 5600 and 5500 series. Additionally, the HP ProLiant Onboard Administrator powered by the Integrated Lights-Out 2, offers features like simplified server set up, health monitoring, power optimization, thermal control, and remote management.

Key features and benefits

The DL370 (4U rack optimized chassis) and the ML370 (expandable tower chassis) deliver industry-leading management tools, leading performance, expandability, flexibility, and the latest energy-efficient technologies. These servers have

been optimized for virtualization and consolidation environments and are well-suited for deployment in growing businesses, remote office sites, or data centers and have also been designed to bring you the utmost confidence to run your business.

Enhanced performance

The DL370 G6 and the ML370 G6 promise to deliver enterprise-class performance. Both of these servers come equipped with Intel Xeon 5600 and 5500 series processors. The DDR3 memory technology offers twice² the bandwidth, double the capacity, and 25% less power, and since both of these servers support 18 DIMMs slots customers can achieve up to 192 GB of DDR3 registered memory. Both the DL370 G6 and the ML370 G6 include the new generation of HP Smart Array Modular Controllers delivering 200% greater performance³ and enhanced backward compatibility.

¹ HP Performance Engineering Team, 2008 Benchmark, for more details visit: www.hp.com/go/reclaimcapacity

² When moving from DDR2 to DDR3, memory bandwidth doubled from 667 to 1333 MHz. JEDEC is the governing body of memory standards. For more information visit: <http://www.jedec.org/standards-documents/docs/jesd-79-3d>

³ The bandwidth of the controller has doubled from 3 Gb/s SAS to 6 Gb/s SAS, equaling 2x the bandwidth or 200% faster. Workloads, applications, and environments may affect actual performance. For more information visit: www.scsita.org/aboutscsi/sas/definition.html



Configure an optimized server—with the confidence to know it's right. Use ProLiant Solution Blocks and HP configuration tools co-designed and validated with leading software vendors, and their energy-efficiency leadership.

Improved power management

Struggling to get your soaring power bills under control? Not only does the right-sized ProLiant Power Supplies help reclaim lost data center power, but the Intelligent Power and Cooling Savers can tell when power is being wasted. Correspondingly, you get to improve your IT architecture's capacity up to 3x with Dynamic Power Capping, which is available as part of Insight Control suite. In addition, the Intel 45 nanometer technology and dynamic resource scaling further enable more efficient power management.

Supporting the high-efficiency power supplies, both the DL370 G6 and the ML370 G6 put a check on your undesirable power consumption. Improved power efficiency enabled by HP ProLiant Common Slot Power supplies (460W and 750W)⁴ and HP ProLiant Common Slot Power supplies (1200W)⁵ has earned the servers various energy saving certifications.

Deploy easily, manage seamlessly

The ProLiant portfolio of deployment tools, such as SmartStart, Pre-Boot Execution Environment (PXE), Array Configuration Utility (ACU), and ROM-Based Setup Utility (RBSU) enables a hassle-free set up. The HP ProLiant Onboard Administrator and HP Systems Insight Manager gives you the flexibility to manage and monitor all your DL370 G6 and ML370 G6 servers seamlessly, and make it an ideal fit for remote deployments.

Enterprise-class redundancy features

Business continuity is a must for businesses, both big and small. Intolerant to downtime as your business is, you can count on the DL370 G6 and the ML370 G6 to deliver 24x7 accessibility and proven data integrity. There are three hot plug fans which are standard offering with every system, for full redundancy features you can purchase the DL370 G6 and ML370 G6 redundant fan kit. Combined with this is the availability of two processors and support for redundant power supplies delivering high-availability and high-performance system processing.

Increase flexibility

As mentioned earlier, both of these servers support PCI-Express Gen2 slots (nine available) coupled with the 8-bay drive cage provide room for expansion.

Another outstanding feature is the flexibility of the tower models to convert to rack configurations, hence lending your infrastructure an additional deployment flexibility.

Optimize system performance and ease of serviceability

With its inherent features that enhance business outcomes and facilitate ease of serviceability, the DL370 G6 and the ML370 G6 have achieved numerous #1 benchmarks—VMmark, TPC-C, SPECweb2005, and SPECweb2009. Feature enhancements like nine available PCI-Express Gen2 slots, 18 DIMM memory slots supporting Advanced ECC, mirroring mode, and lock-step mode give these two servers a visible competitive advantage. For tool-free internal serviceability, snap on quick-deploy slide rails included with rack models and tower-to-rack conversion kits. They enable rapid installation and save valuable time.

Ideal environments

A variety of environments from corporate work groups to critical remote sites

With its large internal storage capacity—accommodating everything from web applications to databases—24x7 accessibility and ease of serviceability, the DL370 G6 and the ML370 G6 are the ideal choices for virtualization and consolidation environments spanning across corporate work groups to critical remote sites.

Growing businesses with expandability requirements

Designed to meet the requirements of growing businesses, the DL370 G6 and the ML370 G6 have nine available I/O slots that support PCI-Express Gen2. And what about storage capacity, you may ask. Put your fears to rest as the 8-bay standard drive cage provides up to 4.8 TB of storage (8 x 600 GB).

Critical remote sites

You need not worry about connectivity or performance when you are working in a remote location. The new HP ProLiant Onboard Administrator and HP Systems Insight Manager (SIM), makes sure that you get enterprise-class management features, therefore proven availability and uptime for critical applications.

⁴ Meet Climate Savers Computing Initiative GOLD, ECOS Consulting 80PLUS GOLD and the standard specifications for Energy Star for Servers Power Supply requirements

⁵ Meet Climate Savers Computing Initiative Bronze, ECOS Consulting 80PLUS Bronze Power Supply requirements

Processor and memory						
Processor type	Intel Xeon 5600 and 5500 series					
Available processors	Intel Naming	Speed (GHz)	L3 Cache (MB)	Wattage (W)	Turbo	DDR3 Memory (MHz)
	Six-Core Processors					
	X5680	3.33	12	130W	1/1/1/1/2/2	1333
	X5670	2.93	12	95W	2/2/2/2/3/3	1333
	X5660	2.80	12	95W	2/2/2/2/3/3	1333
	X5650	2.66	12	95W	2/2/2/2/3/3	1333
	Quad-Core Processors					
	X5677	3.46	12	130W	1/1/2/2	1333
	X5667	3.06	12	95W	2/2/3/3	1333
	E5640	2.66	12	80W	1/1/2/2	1066
	E5630	2.53	12	80W	1/1/2/2	1066
	E5620	2.40	12	80W	1/1/2/2	1066
	W5580	3.20	8	130W	1/1/1/2	1333
	X5570	2.93	8	95W	2/2/3/3	1333
	X5560	2.80	8	95W	2/2/3/3	1333
	X5550	2.66	8	95W	2/2/3/3	1333
	E5540	2.53	8	80W	1/1/2/2	1066
	E5530	2.40	8	80W	1/1/2/2	1066
	E5520	2.26	8	80W	1/1/2/2	1066
	E5506	2.13	4	80W	N/A	800
	E5504	2.00	4	80W	N/A	800
	Quad-Core Processors (Low Voltage)					
	L5630	2.13	12	40W	1/1/2/2	1066
	L5520	2.26	8	60W	1/1/2/2	1066
	Dual-Core Processors					
	E5502	1.86	4	80W	N/A	800
Processor core	6, 4, and 2-Core Processors					
Processor cache	12, 8, and 4 MB Level 3 cache depending on processor (see table above)					
Maximum Processor speed	3.46 GHz					
Multi-processor	Up to 2					
Memory type	PC3-10600R Registered (DDR3) Memory or PC3-10600E Unbuffered (DDR3) Memory					
Standard memory	Standard (Performance Models)—12 GB (6 x 2 GB) RDIMM Standard (Base Models)—6 GB (3 x 2 GB) RDIMM Standard (Entry Model)—4 GB (2 x 2 GB) RDIMM Note: Depending on the memory configuration and processor model, the memory speed may run at 1333 MHz, 1066 MHz, or 800 MHz. Please see the Online Memory Configuration Tool					
Maximum memory	192 GB RDIMM 48 GB UDIMM					
Memory slots	18 DIMMs					
Advanced memory protection	Advanced ECC, Mirrored Memory, Lock-step mode					
Storage type	Hot plug 2.5-inch SAS/SATA Hot plug 3.5-inch SAS/SATA					
Maximum number of hard drives	24					
Maximum number of hard drives noted	Supports (24) 2.5" Small Form Factor or (14) 3.5" Large Form Factor Hard Drives					
Expansion slots	(9) available PCI-Express Gen2 expansion slots to provide you with the latest I/O performance					
Storage controller	HP Smart Array P410i Controller with 256 MB, 512 MB battery-backed write cache (BBWC), 512 MB flash-backed write cache (FBWC), and 1 GB FBWC options					
Deployment						
Form factor	Rack or Tower					
Rack height	4U					
Networking	HP NC375i Quad Port Multifunction Gigabit Server Adapter					
Infrastructure management	HP ProLiant Onboard Administrator powered by the HP Integrated Lights-Out 2 HP Insight Control suite with new Dynamic Power Capping technology					
Redundant power supply	Optional					
Redundant fans	Optional					
Warranty	3-year parts/3-year labor/3-year onsite					

Rendering and visualization requirements

The HP ProLiant DL370 G6 and the HP ProLiant ML370 G6 support (3) x16 PCI-Express slots allowing support for up to (3) 300W Graphic Cards making these servers the ideal solutions for rendering and visualization requirements.

Options include

- Easy tower-to-rack conversion in the case of the ML370 G6, which includes a tower-to-rack conversion kit
- USB 2.0 Support—five total USBs; two front, two rear, and for security purposes one internal
- Up to 24 Small Form Factor drives and up to 14 Large Form Factor drives
- Hot plug fans and power with optional redundancy
- Graphic Card Adapter Kit enabling support for up to (3) 300W Graphic Cards
- High-performance models with a 2nd processor, SAS controller, extra memory, redundant fans, and power supplies
- HP Insight Control suite helps you deploy servers rapidly, proactively monitor system health and performance, improve power consumption, and take total remote control of your infrastructure

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 on these services, 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 offers a comprehensive portfolio of HP Care Pack Services to help design, deploy, manage, and support your IT environment.

Minimum Recommended HP Care Pack offerings

- Three-year, same business day, 4-hour response onsite; 24x7 coverage, hardware support
- Integrated hardware plus operating system installation and startup

Enhanced service level Care Pack offerings

- **Three-year Support Plus 24:** Integrated 24x7 hardware and software operating support
- **Proactive Select:** Access to HP best-in-class technical consultants. 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 server availability to your business
- Detect, diagnose, and repair problems quickly to save time, money, and resources

For more information, visit

www.hp.com/services/proliantservices or
www.hp.com/go/proliant/carepack

For more information about the HP ProLiant DL370 G6 and the HP ProLiant ML370 G6 servers, visit: www.hp.com/servers/dl370-g6 or www.hp.com/servers/ml370-g6

Share with colleagues



Get connected

www.hp.com/go/getconnected

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

© Copyright 2009–2010 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.

Intel and Xeon are trademarks of Intel Corporation in the United States and other countries.

4AA2-5106ENW, Created March 2009; Updated September 2010, Rev. 3

