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 triple[1] 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 range of Intel's latest processors—Intel® Xeon® 5600 and 5500 series processors. Additionally, the HP ProLiant Onboard Administrator powered by the Integrated Lights-Out 2, offers features like simplified server setup, 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) servers deliver industry-leading management tools, 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 twice[2] the bandwidth, double the capacity, and 25% less power, and since both of these servers support 18 DIMM 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 performance[3] and enhanced backward compatibility.

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[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 of knowing it's right. Use ProLiant Solution Blocks and HP configuration tools co-designed and validated with leading software vendors and their energy-efficient leadership.

Improved power management

Struggling to get your soaring power bills under control? Not only do 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 the 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 servers put a check on your undesirable power consumption. Improved power efficiency enabled by HP ProLiant Common Slot Power Supplies (460 W and 750 W)[4] and HP ProLiant Common Slot Power Supplies (1200 W)[5] has earned the servers various energy saving certifications.

Deploy easily, manage seamlessly

The ProLiant portfolio of deployment tools, such as SmartStart, Preboot Execution Environment (PXE), Array Configuration Utility (ACU), and ROM-Based Setup Utility (RBSU), enables a hassle-free setup. The HP ProLiant Onboard Administrator and HP Systems Insight Manager give you the flexibility to manage and monitor all your DL370 G6 and ML370 G6 servers seamlessly, and make them 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 servers to deliver 24x7 accessibility and proven data integrity. There are three hot-plug fans, which are a 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.

Increased flexibility

Both of these servers support PCI Express Gen2 slots (nine available), which, 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, providing your infrastructure with additional deployment flexibility.

Enhance system performance and ease of serviceability

With their inherent features that enhance business outcomes and facilitate ease of serviceability, the ProLiant DL370 G6 and the ML370 G6 Servers 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 are included with rack models and tower-to-rack conversion kits. They enable rapid installation and save valuable time.

Watch the HP product marketing manager demo the HP ProLiant ML/DL370 G6 Server

Meet the HP ProLiant ML/DL370 G6 Server

Ideal environments

A variety of environments from corporate workgroups to critical remote sites

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

Click here to view the demo and get an overview of the HP ProLiant ML/DL370 G6 Server

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

[5] Meet Climate Savers Computing Initiative BRONZE, ECOS Consulting 80 PLUS BRONZE Power Supply requirements

Technical specifications
HP ProLiant DL370 G6 and HP ProLiant ML370 G6 Servers

Processor and memory	
Processor type	Intel Xeon 5600 and 5500 series processors

Available processors	Intel naming	Speed (GHz)	L3 cache (MB)	Wattage (W)	Turbo	DDR3 memory (MHz)
	Six-core processors					
	X5690	3.46	12	130 W	1/1/1/1/2/2	1333
	X5680	3.33	12	130 W	1/1/1/1/2/2	1333
	X5675	3.06	12	95 W	2/2/2/2/3/3	1333
	X5670	2.93	12	95 W	2/2/2/2/3/3	1333
	X5660	2.80	12	95 W	2/2/2/2/3/3	1333
	X5650	2.66	12	95 W	2/2/2/2/3/3	1333
	E5649	2.53	12	80 W	1/1/1/1/2/2	1333
	E5645	2.40	12	80 W	1/1/1/1/2/2	1333
	Quad-core processors					
	X5687	3.60	12	130 W	1/1/2/2	1333
	X5677	3.46	12	130 W	1/1/2/2	1333
	X5672	3.20	12	95 W	2/2/3/3	1333
	X5667	3.06	12	95 W	2/2/3/3	1333
	E5640	2.66	12	80 W	1/1/2/2	1066
	E5630	2.53	12	80 W	1/1/2/2	1066
	E5620	2.40	12	80 W	1/1/2/2	1066
	W5580	3.20	8	130 W	1/1/1/2	1333
	X5570	2.93	8	95 W	2/2/3/3	1333
	X5560	2.80	8	95 W	2/2/3/3	1333
	X5550	2.66	8	95 W	2/2/3/3	1333
	E5540	2.53	8	80 W	1/1/2/2	1066
	E5530	2.40	8	80 W	1/1/2/2	1066
	E5520	2.26	8	80 W	1/1/2/2	1066
	E5607	2.26	8	80 W	N/A	1066
	E5606	2.13	8	80 W	N/A	1066
	E5506	2.13	4	80 W	N/A	800
	E5504	2.00	4	80 W	N/A	800
	E5603	1.60	4	80 W	N/A	1066
	Quad-core processors (low voltage)					
	L5630	2.13	12	40 W	1/1/2/2	1066
	L5520	2.26	8	60 W	1/1/2/2	1066
	Dual-core processors					
	E5502	1.86	4	80 W	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 above)
Maximum processor speed	3.46 GHz
Multiprocessor	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-in SAS/SATA Hot-plug 3.5-in SAS/SATA
Maximum number of hard drives	24
Maximum number of hard drives noted	Supports (24) 2.5-in Small Form Factor or (14) 3.5-in 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

Growing businesses with expandability requirements

Designed to meet the requirements of growing businesses, the DL370 G6 and the ML370 G6 servers 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) make sure that you get enterprise-class management features, providing proven availability and uptime for critical applications.

Rendering and visualization requirements

The HP ProLiant DL370 G6 and the HP ProLiant ML370 G6 Servers support 3 x 16 PCI Express slots, allowing support for up to three 300 W graphic cards, making these servers ideal solutions for rendering and visualization requirements.

Options include

- Easy tower-to-rack conversion in the case of the ProLiant ML370 G6 Servers, 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
- HP Graphic Card Adapter Kit enabling support for up to three 300 W graphic cards

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**

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
- 3-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
- **3-year Support Plus 24:** Integrated 24x7 hardware and software operating support
- **Proactive Select:** Access to HP 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**

- High-performance models with a second 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

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