



HP ProLiant DL370 G6 and HP ProLiant ML370 G6 – first to break 80,000 on SPECweb2005 benchmark



NEW HP ProLiant 370 G6 delivers top SPECweb2005 results - any way you slice it: DL (rack) or ML (tower)

HP Leadership



»The HP ProLiant DL370 G6 (rack-ready) and the HP

ProLiant ML370 G6 (tower with an option to rack) servers continue to deliver the best blend of 2-socket performance and affordable availability for a variety of applications. Its features include:

- The fastest processor available from Intel: Intel® Xeon® Processor W5580 at 3.20GHz
- 60, 80, and 95 Watt processor support
- DDR3 1333MHz DIMMs and larger memory footprint
- Common Power Supplies
- Modular Smart Array Controllers
- HP Onboard Administrator
- New Dual-Port 10 GbE SFP+ Network Adapter by ServerEngines (BE4TGX14-P01)

Customer Value

What are the customer benefits of HP ProLiant servers and SPECweb2005?

The SPECweb2005 benchmark measures a system's ability to act as a web server.

Today, with web-based businesses requiring more peak performance and scalability to handle heavy user traffic while balancing cost and power concerns, the results from this benchmark are evidence of the clear value that the HP ProLiant DL370 G6 and the HP ProLiant ML370 G6 with Quad-Core Intel Xeon processors offer an Internet business or any data center – the ultimate in performance, reliability, and power efficiency.

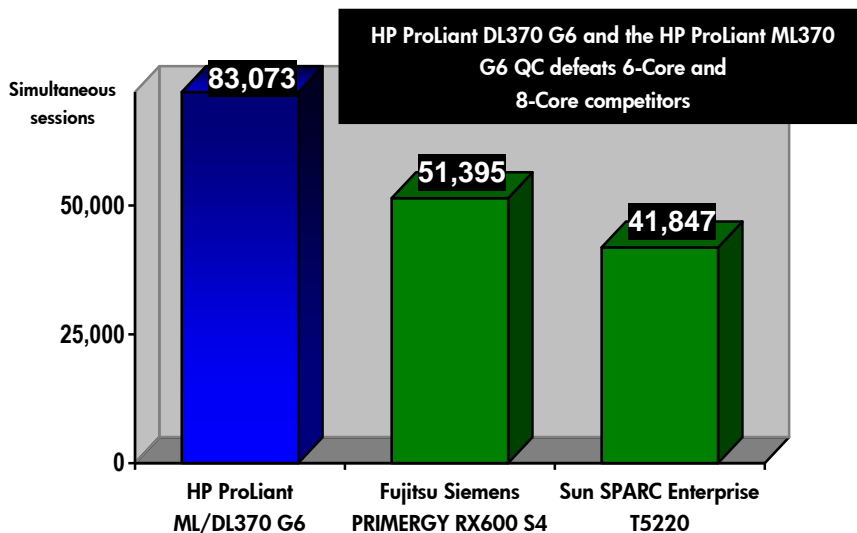
The record-breaking benchmark result of the HP ProLiant DL370 G6 and the HP ProLiant ML370 G6 demonstrates the outstanding performance and reliability that HP solutions deliver to meet the increasingly high demands of web server users.

HP Lead Key Points

- HP ProLiant continues to dominate performance leadership with the two-socket Quad-Core HP ProLiant DL370 G6 and the HP ProLiant ML370 G6 by achieving top OVERALL performance results on the SPECweb2005 benchmark. The HP ProLiant DL370 G6 and the HP ProLiant ML370 G6 beat all SPECweb2005 competitors across the board, including Sun and Fujitsu Siemens.
- The HP ProLiant DL370 G6 and the HP ProLiant ML370 G6 are the first servers to achieve a result over SPECweb2005 75,000 on the Support sub-metric of the benchmark with a score of SPECweb2005 76,352.
- The Quad-Core processors supported on these two servers showed nearly twice the performance of the 8-Core Sun SPARC Enterprise T5220.
- With Intel Xeon Quad-Core processors, the latest Intel processor technology, and the new 10GbE NIC from ServerEngines, the HP ProLiant DL370 G6 and the HP ProLiant ML370 G6 showed an increase of more than TRIPLE the performance from its previous generation G5 result in this benchmark.

This recent SPECweb2005 benchmark result adds another proof point to the list of HP industry-leading web server performance records. **HP was the first to break 20,000, then 30,000, 40,000, 50,000** (with the HP ProLiant DL580 G5), recently **70,000** (with the ProLiant DL380 G6), and now **80,000 SPECweb2005**.

Figure 1. Comparison of the simultaneous sessions of the HP ProLiant DL370 G6 and the HP ProLiant ML370 G6 Intel Xeon two-socket tower/rack server to Fujitsu Siemens and Sun SPARC servers on the SPECweb2005 benchmark. Competitor results as of 05-20-09; HP ProLiant DL370 G6 and HP ProLiant ML370 G6 results submitted 05-20-09.



Technology for better business outcomes.

The ProLiant advantage

HP proven performance

HP has posted hundreds of results on the most commonly used benchmarks on hundreds of ProLiant servers and blades, helping customers to identify reasons to be confident in HP.

Benchmark configurations and comparisons

The recently announced HP ProLiant DL370 G6 and the HP ProLiant ML370 G6 test results took the top overall performance records on the SPECweb2005 benchmark, utilizing Quad-Core Intel Xeon processors W5580 (8 cores/2 chips/4 cores per chip) with HyperThreading technology, running Red Hat Enterprise Linux 5.3 operating system and Rock Web Server v1.4.7 System Web Server software. Two ServerEngines RayWire2 10GbE Dual Port SFP+ network adapters (BE4TGX14-P01), one HP Smart Array P410i (embedded) and one Smart Array P411 Controller with 512MB cache round out the internal option cards. Storage consisted of 2x36GB Small Form Factor (SFF) SAS 15K RPM drives for the operating system, 2x72GB SFF SAS 15k RPM drives for access logs, and to two Modular Smart Array 70 Enclosures configured with 50x72GB SFF SAS 15K RPM hard drives for the file set.

Table 1. Configurations and result summaries of the HP ProLiant DL370 G6 (rack-ready) and HP ProLiant ML370 G6 (tower) servers compared to the 8-Core Sun and 6-Core Fujitsu Siemens competitors on the SPECweb2005 benchmark.

Configurations and results for the HP ProLiant DL370 G6 and the HP ProLiant ML370 G6 and Sun and Fujitsu competitors on the SPECweb2005 benchmark			
Server	HP ProLiant DL370 G6 and HP ProLiant ML370 G6	Sun SPARC Enterprise T5220	Fujitsu Siemens PRIMERGY RX600 S4
Web server configuration	Quad-Core Intel Xeon W5580 3.2GHz 8 cores/2 chips/4 cores per chip 96GB (12 x 8) memory; Red Hat Enterprise Linux (RHEL) 5.3 OS	8-Core UltraSPARC T2 1.4GHz 8 cores/1 chip/8 cores per chip 64GB (16 x 4) memory; Solaris 10 05/08 OS	6-Core Intel Xeon X7460 2.667GHz 24 cores/4 chips/6 cores per chip 128GB (16 x 8) memory; RHEL 5.2 OS
SPECweb2005	83,073	41,847	51,395
	HP Performance Advantage	HP shows 99% performance superiority!	HP shows 60% performance superiority!

Table 2. HP ProLiant DL370 G6 and the HP ProLiant ML370 G6 scalability comparison on the SPECweb2005 benchmark.

ProLiant DL370 G6 and ML370 G6 and ML370 G5 performance scalability results and configurations	
HP ProLiant DL370 G6 and HP ProLiant ML370 G6 Quad-Core	HP ProLiant ML370 G5 Quad-Core
Intel Xeon W5580 3.2GHz 8 cores/2 chips/4 cores per chip 96GB (12 x 8) memory; Red Hat Enterprise Linux (RHEL) 5.3 OS	Quad-Core Intel Xeon X5355 2.6GHz 8 cores/2 chips/4 cores per chip 32GB (8 x 4) memory; Red Hat Enterprise Linux (RHEL) 4 U4 OS
SPECweb2005 83,073	SPECweb2005 19,661
Comparing HP G6 to G5 Performance Scalability – new Intel processor technology nets more than 3X performance increase!	

All test results as of 05-20-09. The HP ProLiant DL370 G6 and ML370 G6 results were submitted to SPEC on 05-20-09. For more details, please visit: www.spec.org/web2005.



HP Smart Array Controller P411

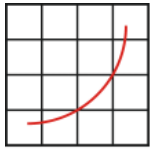
The HP Smart Array P411 is HP's PCI Express (PCIe) Serial Attached SCSI (SAS) RAID controller. The low profile, half height card has 8 ports and utilizes DDR2-800 memory. The P411 is ideal for RAID 0/1, 5, 1+0 & 5+0 and can be upgraded with the 512MB battery-backed write cache (BBWC) module and Smart Array Advanced via license key for RAID 6 & 6 +0.

HP StorageWorks 70 Modular Smart Array



The HP StorageWorks 70 Modular Smart Array is an end-to-end flexible storage array, offering data availability, enhanced reliability, enhanced performance, and tiered storage capability with SAS and SATA drives and investment protection. Small and midrange business growing storage needs can be managed by deploying this low cost, flexible tiered storage system with up to 14.4TB capacity supporting SAS or SATA.

About SPECweb2005



spec[®]

This next-generation SPEC benchmark was designed by industry leading companies, including Hewlett-Packard, in order to evaluate the performance of state-of-the-art web servers. The three workloads, banking (https), e-commerce (https and http), and support (http) are designed to closely match today's real-world web server access patterns. Each workload measures simultaneous user sessions; however, the overall score of SPECweb2005 is unit-less. A server achieving a higher score represents a server with an overall better performance running all three workloads. SPEC, the SPEC logo, and the benchmark name SPECweb are registered trademarks of the Standard Performance Evaluation Corporation (SPEC). The SPEC logo is ©2009 Standard Performance Evaluation Corporation (SPEC), reprinted with permission. Herein two comparisons presented above are based on the top performing four-socket, two-socket, and all servers respectively. The competitive benchmark results stated herein reflect results published on www.spec.org as of May 20, 2009. The HP ProLiant ML/DL370 G6 results were submitted to SPEC on May 20, 2009.

For the latest SPECweb2005 benchmark results, please visit www.spec.org/web2005.

For more information

HP ProLiant DL370 G6: www.hp.com/servers/dl370-g6

HP ProLiant ML370 G6: www.hp.com/server/ml370-g6

HP ProLiant storage solutions: <http://h18004.www1.hp.com/products/servers/platforms/storage.html>

ProLiant benchmarks: www.hp.com/servers/benchmarks

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