HP achieved #1 power efficient 2P result on SPEC’s new web server benchmark with HP ProLiant DL370 G6

Customer value

Benefits of the HP ProLiant DL370 G6

HP announced new record-breaking results on the SPECweb2009 benchmark for the HP ProLiant DL370 G6 on June 5, 2009. These results establish not only that the ProLiant DL370 G6 offers energy efficient design but also that customers have a choice of operating system environment for energy efficient performance. To see more performance records browse: www.hp.com/servers/benchmarks.

The HP ProLiant DL370 G6 (rack-optimized) 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:

- Leading processor technology from Intel: Intel® Xeon® Processor W5580 at 3.20GHz
- 60, 80, and 95 Watt processor support
- Up to 144GB memory using PC3-8500R DDR3 Registered (RDIMM) memory, or up to 24GB using PC3-10600E DDR3 Unbuffered (UDIMM) memory
- Common Power Supplies
- Modular Smart Array Controller embedded
- HP Onboard Administrator powered by iLO2
- PCIe Gen2 slots
- Dynamic Power Capping technology

Options used in this benchmark include:

- HP SmartArray P411
- HP StorageWorks MSA70
- 72GB 15k SFF SAS disks
- New Dual-Port Raywire2 10 GbE Network Adapter by ServerEngines (BE4TGX14-PO1)

Understanding the results

- #1 2-processor energy efficient web server performance.
- #1 overall performance.
- Performed 4x the number of transactions while matching competitor’s 1P power/performance metric.
- The DL370 G6 achieved a score of SPECweb2009_JSP_Peak 95,634 sus @ 725W overall while maintaining a power/performance metric of SPECweb2009_JSP_Power 103 assu per watt.

SPECweb2009 is a new release from SPEC for evaluating the power and performance characteristics of server class computers in a web serving environment. This measurement provides a way to compare the power/performance or energy efficiency of servers in a real world solution. As with previous SPECweb2005 benchmark world records, HP demonstrates that its ProLiant server family, built upon the latest industry-standard technology, is an industry leader in energy efficiency.

What SPECweb2009 measures

Currently, many vendors report some energy-efficiency figures, but these are often not directly comparable due to differences in workload, configuration, test environment, etc. SPEC defines server power measurement standards with the same keen attention to detail it has applied to performance. This benchmark provides a means to measure power in conjunction with a performance metric, enabling IT managers to consider power characteristics to increase the efficiency of data centers. Being a Standard Performance Evaluation Corporation (SPEC) benchmark, SPECweb2009 is a peer-reviewed benchmark that provides a way for server vendors to compare benchmark results in a fair manner. More information about SPECweb2009_JSP results can be found at the following Web page: http://www.spec.org.

About the new metrics and benchmark

- SPEC has divided each script language into a separate, non-comparable category. Currently, JSP and PHP are the only two script languages, designated by SPECweb2009_JSP and SPECweb2009_PHP.

- SPECweb2009_JSP_Peak – This metric measures the performance and power usage of the web server and all associated storage on three workload types; Banking (SSL intensive), Ecommerce (HTTP/SSL mix) and Support (high bandwidth HTTP). The metric for this workload is simultaneous user sessions @ watt (sus @ W).

- SPECweb2009_JSP_Power – This metric measures the performance and power usage of the web server and all associated storage while varying the load level within the Ecommerce workload. The baseline run from the SPECweb2009_JSP_Peak_Ecommerce measurements are taken at the target loads of 100%, 80%, 60%, 40%, 20%, and then active idle. The total number of sessions achieved from each session are summed, then divided by the total number of watts used for all six target loads. This is the aggregated simultaneous user sessions (sus/watt).

For more information about the server:

www.hp.com/servers/proliantdl370

Figure 1. DL370 G6 Performance to Power Ratio chart

© 2009 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. SPEC, the SPEC logo, and the benchmark names SPECweb2009_JSP, SPECweb2009 and SPECweb2005 are registered trademarks of the Standard Performance Evaluation Corporation (SPEC). Results stated above reflect results published as of June 5, 2009. For the latest SPECweb2009_JSP benchmark results, visit http://www.spec.org/web2009/results. The SPEC logo is © 2009 Standard Performance Evaluation Corporation (SPEC), reprinted with permission. June 2009