



HP ProLiant DL380 G7 an industry leader in energy efficient server performance

Holds world record on single-node SPECpower_ssj2008 benchmark

September 2010

Executive summary

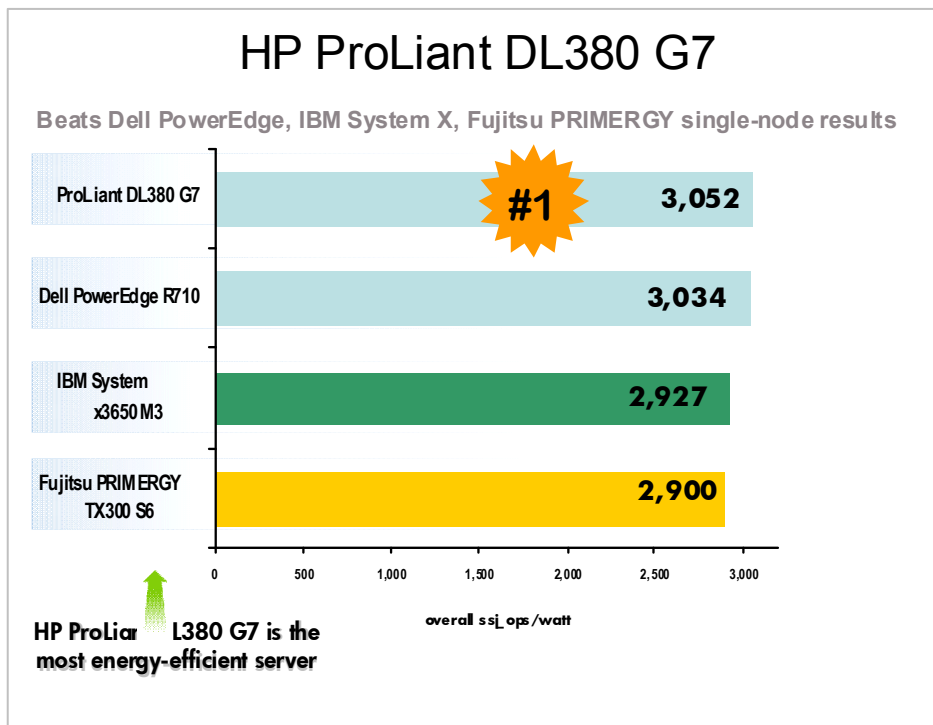
Continuing to deliver on its heritage of engineering excellence with increased flexibility and performance, the HP ProLiant DL380 G7 earned the world record for single-node power performance on the SPECpower_ssj2008 benchmark with 3,052 overall ssj_ops/watt.



Key Take Aways:

- ▶ #1 overall power performance for single-node across all operating systems and server vendors
- ▶ Excellent proof point for industry-leading energy efficient and high density solutions.
- ▶ Better energy efficient and power performance than the Dell PowerEdge R710, IBM System x3650 M3, and the Fujitsu PRIMERGY TX300 S6 single-node results

Figure 1. Best single-node performance for each vendor.



Results on this benchmark further establish the outstanding energy efficiency that customers can achieve with the HP ProLiant DL380 G7, also known as the versatile, dependable workhorse

Results as of 09/07/10; see: http://www.spec.org/power_ssj2008/results/. Energy efficiency improvement as compared to Dell PowerEdge R710, IBM System x3650 M3, and Fujitsu PRIMERGY TX300 S6 single-node results. #1 claim refers to the top overall single-node result on the SPECpower_ssj2008 benchmark.

Business transformation with HP Converged Infrastructure and ProLiant servers: HP is uniquely positioned to build the Converged Infrastructure because HP is the only company to offer a full portfolio of standards-based, integrated solutions, and services developed specifically to solve the complexities of the data center. HP is also the only company that can deliver a single common, modular architecture across the data center from x86 to Superdome. This means that companies can use the same architecture to run and manage multiple workloads across servers, storage, and networking. This significantly reduces complexity, resource requirements, and costs.



Benchmark Configurations

The HP ProLiant DL380 G7 was set up as a system with two Intel Xeon L5640 processors configured as 2.26GHz 6-Core (2 processors/12 cores/24 threads) with 12MB L3 cache, and 16GB main memory (4 x 4096MB) 2Rx8 PC3L-10600E DIMMs. The server ran with 1 x 120GB SFF SSD SATA disk drive, an integrated SATA controller, and two embedded HP NC382i dual-port gigabit server adapters. The server was running Windows Server 2008 Enterprise Edition R2. System availability date is September 2010.

http://www.spec.org/power_ssj2008/results/

Table 1. Configuration details for top four single-node results on the SPECpower_ssj2008 benchmark

System Description	Overall ssj_ops/watt	Processor, Chips/Cores/Threads
HP ProLiant DL380 G7, 2P per node, single node	3,052	Intel Xeon L5640 2.26GHz 6-core, 2/12/24
Dell PowerEdge R710, 2P per node, single node	3,034	Intel Xeon X5670 2.93GHz 6-core, 2/12/24
IBM System x3650 M3, 2P per node, single node	2,927	Intel Xeon X5670 2.93GHz 6-core, 2/12/24
Fujitsu PRIMERGY TX300 S6, 2P per node, single node	2,900	Intel Xeon X5670 2.93GHz 6-core, 2/12/24

About the SPECpower_ssj2008 benchmark

SPECpower_ssj2008 is the first generation SPEC benchmark for evaluating the power and performance characteristics of server class computers. This measurement provides a way to compare the power/performance or energy efficiency of servers. As with previous SPECpower_ssj2008 benchmark world records, HP demonstrates that its ProLiant server family, built upon the latest industry-standard technology, is an industry leader in energy efficiency.

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 that 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, SPECpower_ssj2008 is a peer-reviewed benchmark that provides a way for server vendors to compare benchmark results in a fair manner. More information about SPECpower_ssj2008 results can be found at the following Web page: <http://www.spec.org>. Results as of 9-07-10.

For more information check out:

HP ProLiant DL380 G7: www.hp.com/servers/proliantdl380g7

HP Converged Infrastructure: <http://h18004.www1.hp.com/products/solutions/converged/overview.html>

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