



NEW HP ProLiant DL380 G7 scores highest with x86 2-socket performance world record on TPC-C benchmark

First x86 2-socket server to break 800,000 tpmC barrier, excellent price/performance

May 2010

Executive summary

Living up to its name, “the versatile, dependable workhorse”, the ProLiant DL380, with its latest Generation 7 technology, has attained another #1 performance result. With 803,068tpmC @ \$.68USD/tpmC, the ProLiant DL380 G7 acquired the highest x86 2-socket result performance and in the TOP TEN for price/performance on the TPC-C benchmark.

The latest Intel Xeon technology lived up to the promise of improvements in performance for faster productivity and efficiency for a broad range of applications ranging from data transactions to workstations, according to Intel.¹

Key Take Aways:

- ▶ **#1 x86 2-socket performance**
- ▶ **HP dominates with SIX of the top TEN for 2-socket performance**
- ▶ **HP rules with NINE of the top TEN for 2-socket price/performance**

What this means for customers

With the HP Converged Infrastructure solution and the latest generation of HP technology, the ProLiant DL380 G7 with 6-core Intel X5680 Series processors presents integrated approaches to reduce and control energy usage in real-time to improve efficiency under any workload, to lower costs, and to extend the capacity of existing facilities. HP Converged Infrastructure, the building block for HP ProLiant servers, simplifies how networks are built, managed, and secured to help clients reduce complexity, increase productivity, and use more of their network capacity. By providing clients an open, standards-based choice to an industry that previously had limited options, HP breaks through the deadlock that has driven decades of complexity and rising costs.

Business transformation with HP Converged Infrastructure: HP is at an inflection point where our technology is coming together to help our clients build the data center of the future, and it will be based on the Converged Infrastructure. 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.

Why the ProLiant DL380 is the world's best-selling rack server

The HP ProLiant DL380 G7 is the world's best-selling rack server, continuing its dominant share in the 2U, 2-socket market with new G7 benefits. Its rack server format delivers on its heritage of engineering excellence with increased flexibility and performance, enterprise-class uptime and manageability, 2-socket Intel Xeon performance, and 2U density for a variety of applications.

Other key benefits include:











- **6-core /4-core Intel Xeon Performance for demanding scale-out applications and virtualization projects**
- **Flexible, ready to deploy for complex, dynamic environments**
- **Powerful administration management tools**
- **Versatility and availability for a wide range of deployments**
- **Increased performance, durability, and energy efficiency**

¹ <http://www.eweek.com/c/a/IT-Infrastructure/Dell-HP-Refresh-Servers-With-Intel-Westmere-Chips-746958/>



HP takes SIX of the TOP TEN results for 2-socket performance and NINE of the top TEN results for 2-socket price/performance

Table 1. HP ProLiant servers dominate the two-socket performance and price/performance results for the TPC-C benchmark.

Sponsor	System	tpmC	Price/ tpmC	System Availability	Database	Date Submitted
	IBM Power 780 Server Model 9179- MHB	1,200,011	0.69 USD	10/13/2010	IBM DB2 9.5	4/13/2010
	HP ProLiant DL380 G7	803,068	0.68 USD	9/1/2010	MS SQL Server 2005 Ent. x64 Ed. SP3	5/11/2010
	HP ProLiant DL385G7	705,652	0.60 USD	9/1/2010	MS SQL Server 2005 Ent. x64 Ed. SP3	4/8/2010
	ProLiant DL370G6	661,475	1.16 USD	2/1/2010	Microsoft SQL Server 2005 x64 Enterprise Ed. SP2	2/1/2010
	HP ProLiant DL370 G6	631,766	1.08 USD	3/30/2009	Oracle Database 11g Standard Edition One	3/30/2009
	Bull Escala PL1660R	404,462	3.51 USD	12/16/2007	Oracle Database 10g Enterprise Edition	12/17/2007
	IBM System p 570	404,462	3.50 USD	11/26/2007	Oracle Database 10g Enterprise Edition	8/6/2007
	IBM Power 550 Express	276,383	2.55 USD	12/16/2008	Sybase ASE 15.0.3	6/16/2008
	HP ProLiant ML370G5 X5460 QC	275,149	1.44 USD	1/7/2008	Microsoft SQL Server 2005 x64 Enterprise Ed. SP2	1/7/2008
	ProLiant ML370 G5	273,666	1.38 USD	11/12/2007	Oracle Database 10g Standard Edition One	11/9/2007

*[Top ten 2-socket performance results](#)

Benchmark Configurations

The HP ProLiant DL380 G7 was set up as a 2-processor system with two 3.3GHz 6-Core Intel Xeon X5680 Processors (2 processors/12 cores/24 threads), with 12MB L3 cache, and 192GB main memory (12 x 16GB) PC3-8500R DIMMs. The server was also configured with 4 x LSI-9200_8e SAS controllers connected to 8 x StorageWorks D2700 with 16 x 120GB Solid State Drives each and one Smart Array P411 Controller connected to 3 x StorageWorks D2700 Enclosures with 56 x 500GB 7.2K SFF SAS external drives. The server was running Windows Server 2008 R2 Enterprise Edition x64 operating system, SQL Server 2008 Enterprise Edition x64 database. System availability date is 09/01/10.



Bottom Line

The TPC-C result is just another proof point that the HP ProLiant DL380 G7 continues to live up to its versatile, dependable workhorse reputation. Combined with the HP Converged Infrastructure and the latest Intel Xeon 6-core processor technology, the ProLiant DL380 G7 reassures customers that it will deliver superior performance at a low price/performance for complex, dynamic environments.

About the TPC-C benchmark

The TPC-C benchmark simulates an Online Transaction Processing (OLTP) database environment. The performance of a system is measured when the system is tasked with processing numerous short business transactions concurrently. The TPC-C workload simulates a tiered environment wherein users interact with web pages to enter business transactions. Transactions are entered by simulated users, business logic and queuing of the transactions are handled by a middle tier server, and then the transactions are passed to the TPC-C database server for processing. For more details, see

ftp://ftp.hp.com/pub/c-products/servers/benchmarks/HP_ProLiant_tpcc_Overview.pdf.

TPC Disclosure

A full disclosure report describing these benchmark results has been filed with the Transaction Processing Performance Council (TPC) and is available upon request. This report describes the benchmark HW and SW configuration in detail, provides costs, and lists the code actually used to perform the test. Similar reports from other vendors are the source of the price/performance comparisons provided above. Summaries of all tests are published each month by the TPC and on the Internet on the TPC's World Wide Web Server. With these benchmarks, customers can objectively compare the performance of different vendors' servers in specific areas. Results as of 5-11-10.

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>

TPC-C details: <http://www.tpc.org>