HP ProLiant two-processor servers take giant performance scalability leap

ProLiant DL385 G7 and ProLiant BL465c G7 with AMD Opteron 16-Core processors increase performance by up to 32%

SAP Performance Brief

November 2011

Executive Summary

With impressive performance scalability, the HP ProLiant DL385 G7 and ProLiant BL465c G7 attained outstanding results for two-processor platforms on the two-tier SAP® Sales and Distribution (SD) standard application benchmark. The DL385 G7 achieved 5,805 SAP SD benchmark users and 31,720 SAPS (Certification #2011045) and the BL465c G7 earned 5,294 SAP SD benchmark users and 28,900 SAPS (Certification #2011047). See Figures 1 and 2 and Appendix A for minimum data comparison.

Key Take Aways

- **AMD® Opteron™ 6200 Series performance scalability gain of up to 32% compared with AMD Opteron 6100 Series and Intel Xeon 5600 Processor Series on the DL385 G7 on the two-tier SAP SD benchmark.** See Figures 1 and 2 and Appendix A for minimum data comparison.
- **Up to 17.7% performance gained with AMD Opteron 6200 Series processors on the BL465c G7 compared with AMD Opteron 6100 Series and Intel Xeon x5600 Processor Series on the two-tier SAP SD benchmark .** See Figures 1 and 2 and Appendix A for minimum data comparison.
- **This result is another proof point of increased performance for demanding scale-out applications in a business environment with HP ProLiant servers and 16-core AMD Opteron 6200 Series processors.**

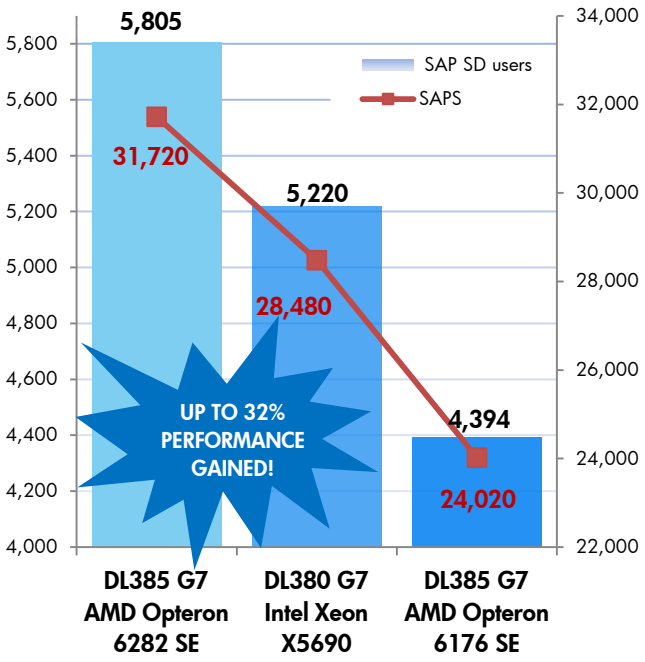

Figure 1. On the two-tier SAP SD standard application benchmark, the two-processor DL385 with AMD Opteron 6282 SE processors shows increased performance scalability when compared with previous AMD Opteron technology and Intel Xeon 5600 Series technology. See Appendix A for minimum data comparison.

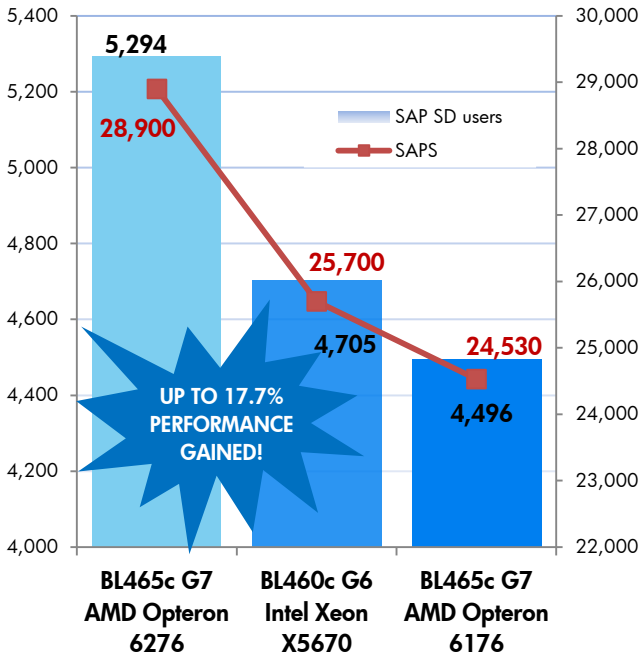

Figure 2. On the two-tier SAP SD standard application benchmark, utilizing the latest AMD Opteron processors, the BL465c G7 achieves more SAP SD benchmark users than the AMD Opteron 6176 processor and the Intel Xeon X5670 processors. See Appendix A for minimum data comparison.

Customer Value

Business transformation with HP Converged Infrastructure

Converged Infrastructure – HP's blueprint for consolidating IT – drives cost reduction and accelerates service delivery. HP Converged Infrastructure delivers breakthrough CAPEX and OPEX savings and streamlines on-demand application and service delivery by unifying server, storage, and networking resources and providing automated, end-to-end service orchestration and management capabilities.

ProLiant DL385 G7

As the leading 2P 2U AMD rack server, the ProLiant DL385 G7 is designed with virtualization in mind, yet flexible and expandable to support any business need in many environments from corporate datacenters to sophisticated SMBs.

ProLiant BL465c G7

Featuring the latest AMD Opteron processors and integrated HP Virtual Connect FlexFabric architecture, the BL465c G7 helps simplify network connections, lower infrastructure costs, and deliver the performance you expect for demanding application workloads.

Benchmark configurations

HP received certification from SAP AG of the results of the ProLiant DL385 G7 and BL465c G7 servers on the two-tier SAP SD standard application benchmark, performed in Houston, TX, USA, on November 2, 2011. The servers were configured with the following setup:

ProLiant DL385 G7: 2 x 2.6GHz 16-Core AMD Opteron 6282 SE processors (2 processors/32 cores/32 threads), 16 x 8GB PC3-10600 DIMMs 1333MHz (128GB total), 1 x Smart Array BBWC P410i to 2 x 146GB and 6 x 72GB 15K SAS SFF internal drives, 1 x Smart Array P411 to 1 x D2700 with 5 x 200GB SLC SSD and 20 x 72GB 15K SAS SFF external drives.
ProLiant BL465c G7: 2 x 2.3GHz 16-Core AMD Opteron 6276 processors (2 processors /32 cores/32 threads), 16 x 8GB PC3-10600 DIMMs 1333MHz (128GB total), 1 x Smart Array FBWC P410i to 2 x 146GB 15K SAS SFF internal drives, 1 x Smart Array P700 to 1 x MSA2324sa with 24 x 72GB 15K SAS SFF external drives.

Both platforms ran Microsoft Windows Server 2008 R2 Enterprise Edition x64 operating system, Microsoft SQL Server 2008 Enterprise Edition x64 database, and SAP enhancement package 4 for the SAP ERP application 6.0. The HP ProLiant DL385 G7 results were 5,805 SAP SD benchmark users and 31,720 SAPS and the BL465c G7 result was 5,294 SAP SD benchmark users and 28,900 SAPS. Results as of November 14, 2011; details can be found at http://www.sap.com/benchmark.

For more information

To read more about HP ProLiant D385 G7, the BL465c G7 Server Blade, and the SAP benchmark:
HP ProLiant DL385 G7: http://www.hp.com/servers/proliant/dl385g7
HP ProLiant BL465c G7 Server Blade: http://www.hp.com/servers/proliant/bl465cg7
HP Converged Infrastructure: http://h18004.www1.hp.com/products/solutions/converged/overview.html
SAP: http://www.sap.com/benchmark

Appendix A

Two-tier SAP SD Standard Application Benchmark Results

Table 1: Configuration details and certification numbers for Figures 1 and 2.

Page 1. Figure 1. – Configuration details and certification numbers of the ProLiant DL385 G7 and DL380 G7 two-processor two-tier results

Platform, processor type (total processors/cores/threads), memory	Certification number	OS, database, and SAP software	SAP SD benchmark users	SAPS
HP ProLiant DL385 G7 16 Core, 2.6GHz AMD Opteron 6282 SE, (2 Processors/32 Cores/32 Threads), 128GB memory	2011045	Microsoft Windows Server 2008 R2 Enterprise Edition x64; SQL Server 2008 Enterprise Edition x64; SAP enhancement package 4 for SAP ERP 6.0	5,805	31,720
HP ProLiant DL380 G7 12 Core 3.46GHz Intel Xeon X5690, (2 Processors/24 Cores/24 Threads), 96GB memory	2011005	Microsoft Windows Server 2008 R2 Enterprise Edition; SQL Server 2008; SAP enhancement package 4 for SAP ERP 6.0	5,220	28,480
HP ProLiant DL385 G7 12 Core, 2.3GHz AMD Opteron 6176 SE, (2 Processors/24 Cores /24 Threads), 128GB memory	2010015	Microsoft Windows Server 2008 Enterprise Edition; SQL Server 2008; SAP enhancement package 4 for SAP ERP 6.0	4,394	24,020

Page 1. Figure 2. – Configuration details and certification numbers of the ProLiant BL465c G7 and BL460c G7 two-processor two-tier results

Platform, processor type (total processors/cores/threads), memory	Certification number	OS, database, and SAP software	SAP SD benchmark users	SAPS
HP ProLiant BL465c G7 16 Core, 2.3GHz AMD Opteron 6276, (2 Processors/32 Cores/24 Threads), 128GB memory	2011047	Microsoft Windows Server 2008 R2 Enterprise Edition x64; SQL Server 2008 Enterprise Edition x64, SAP enhancement package 4 for SAP ERP 6.0	5,294	28,900
HP ProLiant BL460c G6 6 Core 2.93GHz Intel Xeon X5670, (2 Processors/12 Cores/24 Threads), 96GB memory	2010009	Microsoft Windows Server 2008 Enterprise Edition; SQL Server 2008; SAP enhancement package 4 for SAP ERP 6.0	4,705	25,700
HP ProLiant BL465c G7 12 Core, 2.3GHz AMD Opteron 6176, (2 Processors/24 Cores /24 Threads), 128GB memory	2011007	Microsoft Windows Server 2008 R2 Enterprise Edition; SQL Server 2008; SAP enhancement package 4 for SAP ERP 6.0	4,496	24,530

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