HP ProLiant BL680c G7 server blade delivers outstanding results for four-processor Windows performance on two-tier SAP® Sales and Distribution (SD) standard application benchmark

*New unique, multi-processor server blade, the ultimate balanced server*

November 15, 2010

**Executive summary**

Featuring the Intel® Xeon® 7500 series processors, the new HP BladeSystem ProLiant BL680c G7 produced an excellent performance result, resulting in HP now owning the top two spots for four-processor Windows performance on the two-tier SAP® Sales and Distribution (SD) standard application benchmark with SAP enhancement package 4 for the SAP ERP application 6.0. HP leads the way with the ProLiant BL680c G7 server blade, achieving the second-highest four-processor Microsoft Windows result with 10,460 SAP SD benchmark users and 57,100 SAPS. The #1 performance result was previously achieved by the ProLiant DL580 G7 rack server with 10,490 SAP SD benchmark users (certification 2010032), and 57,270 SAPS. (See Appendix A for minimum data comparison).

Trailing behind are four-processor Microsoft Windows server blade competitors Fujitsu and Hitachi. (See Figure 1 below and Appendix A for minimum data comparison).

In addition, the four-processor ProLiant BL680c G7 displayed compelling scalability with more than three times the performance of an earlier result using the previous generation server, the ProLiant BL680c G5, on the SAP SD standard application benchmark with SAP enhancement package 4 for SAP ERP 6.0. (See Figure 2 and Appendix A for minimum data comparison).

**Key Take Aways:**

- New HP ProLiant BL680c G7 server blade with Intel Xeon 7500 series achieves #2 Windows four-processor performance result
- The ProLiant BL680c G7 achieved 23.4% more SAP SD benchmark users than four-processor server blade competitors Hitachi HA8000 Model R440AK and Fujitsu PRIMERGY BX960 S1 (See Figure 1 and Appendix A)
- HP’s newest ProLiant four-processor server blade scales up with more than three times the performance compared to the previous generation ProLiant BL680c G5 server blade. (see Figure 2 and Appendix A)
- Demonstrates that new ProLiant Generation 7 technology with Converged Infrastructure delivers leading performance

**A performance highlight: HP earns excellent blade results with four-processor system**

![Graph showing performance results](image)

- TOP TWO for four-processor Windows performance with #1 HP ProLiant DL580 G7.
- 23.4% better performance than Fujitsu four-processor server blade

Figure 1: The ProLiant BL680c G7 server blade took the #2 spot for x86 four-processor Windows performance when it achieved 10,460 SAP SD benchmark users (57,100 SAPS), defeating four-processor Hitachi and Fujitsu blade competitors.

See page 2 for Figure 1 configuration and Appendix A for comparison minimum data.
Considerable scale-up performance compared from generation to generation

The four-processor ProLiant BL680c G7 server blade showed excellent processor performance scalability results on the two-tier SAP SD standard application benchmark, over three times, when compared to its previous generation result with the ProLiant BL680c G5.

**Figure 2:** Scaled performance derived from comparing HP ProLiant BL680c G7 four-processor results to HP ProLiant BL680c G5-processor results on two-tier SAP SD standard application benchmark. See Appendix A on page 3 for minimum data comparison.

![Graph showing performance comparison](image)

Business transformation with HP Converged Infrastructure and ProLiant servers

Available today, the HP Converged Infrastructure provides a blueprint for the data center of the future that eliminates costly and rigid IT silos so you can spend much more of your IT budget on business innovation. This is achieved by converging server, storage, and networks with facilities – all managed through a common management platform.

The new ProLiant BL680c G7 is the ultimate balanced server with HP Converged Infrastructure

The new HP ProLiant BL680c G7 is defined as the ultimate balance of memory, I/O, and compute-intensive database applications with expandability and performance that even makes MP rack-to-blade transition a true reality. With today’s HP Converged Infrastructure that delivers a new level of simplicity, integration, and automation, business outcomes that matter most can be accelerated and can help you gain an IT advantage over your competitive rivals.

Benchmark configurations

HP received certification from SAP AG of the results of the ProLiant BL680c G7 server blade on the two-tier SAP SD standard application benchmark (certification #2010045) performed in Houston, Texas on November 1, 2010. The HP ProLiant BL680c G7 was set up as a four-processor blade system with 2.26GHz 8-Core Intel Xeon X7560 processors (4 processors/32 cores/64 threads) and 256GB main memory (64 x 4GB PC3-10600 DIMMs, 1333MHz operating at 1066 MHz). The server was also configured with one Smart Array BBWC P410 Controller connected to 4 x 72GB 15K SAS SFF internal drives and one QLogic Mez connected to 1 x MSA2324FC with 24 x 72GB 15K SAS SFF external drives. The server was running Windows Server 2008 R2 Enterprise Edition x64 operating system, SQL Server 2008 Enterprise Edition x64 database, and SAP enhancement package 4 for SAP ERP 6.0. The HP ProLiant BL680c G7 achieved 10,460 SAP SD benchmark users and 57,100 SAPS. All results as of Nov. 15, 2010; details can be found at [http://www.sap.com/benchmark](http://www.sap.com/benchmark).
For more information, check out:

HP ProLiant BL680c G7: www.hp.com/servers/bl680c-g7
SAP: www.sap.com

Appendix A – Two-tier SAP SD Standard Application Benchmark Results

<table>
<thead>
<tr>
<th>Platform, processor type (processors/cores/threads), memory</th>
<th>Certification number</th>
<th>OS, database, and SAP software</th>
<th>SAP SD benchmark users</th>
<th>SAPS</th>
</tr>
</thead>
</table>

Page 1. Figure 1. – Configuration details and certification numbers

<table>
<thead>
<tr>
<th>Platform, processor type (processors/cores/threads), memory</th>
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<th>SAP SD benchmark users</th>
<th>SAPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>HP ProLiant BL680c G7, four processors, 8-core, 2.26GHz Intel Xeon X7560 (4/32/64), 256GB RAM</td>
<td>2010045</td>
<td>Windows Server 2008 R2 Enterprise Ed., SQL Server 2008 EE x64, SAP enhancement package 4 for SAP ERP 6.0</td>
<td>10,460</td>
<td>57,100</td>
</tr>
<tr>
<td>Hitachi HA8000 Model RS440AK, four processors, 8-core, 2.26GHz Intel Xeon X7560 (4/32/64), 256GB RAM</td>
<td>2010037</td>
<td>Windows Server 2008 R2 Enterprise Ed., SQL Server 2008, SAP enhancement package 4 for SAP ERP 6.0</td>
<td>9,300</td>
<td>50,870</td>
</tr>
<tr>
<td>Fujitsu PRIMERGY BX960 S1, four processors, 8-core, 1.86GHz Intel Xeon L7555 (4/32/64), 256GB RAM</td>
<td>2010038</td>
<td>Windows Server 2008 R2 Datacenter Ed., SQL Server 2008, SAP enhancement package 4 for SAP ERP 6.0</td>
<td>8,470</td>
<td>46,220</td>
</tr>
</tbody>
</table>

Page 2. Figure 2. – Heightened scalability with four processor generation-to-generation comparison

<table>
<thead>
<tr>
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<td>HP ProLiant BL680c G7, four processors, 8-core, 2.26GHz Intel Xeon X7560 (4/32/64), 256GB RAM</td>
<td>2010045</td>
<td>Windows Server 2008 R2 Enterprise Ed., SQL Server 2008 EE x64, SAP enhancement package 4 for SAP ERP 6.0</td>
<td>10,460</td>
<td>57,100</td>
</tr>
<tr>
<td>HP ProLiant BL680c G5, four processors, 6-core, 2.4GHz Intel Xeon E7458 (4/24/24), 64GB RAM</td>
<td>2009032</td>
<td>Windows Server 2008 EE, SQL Server 2008, SAP enhancement package 4 for SAP ERP 6.0</td>
<td>3,058</td>
<td>16,680</td>
</tr>
</tbody>
</table>

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