HP ProLiant ML350 G5 takes #1 TPC-C price/performance world wide record with USD$0.94/tpmC

Defeats Dell PowerEdge 2900 result

Key results at a glance:

- Surpassed the 1P IBM p5 520 rack server configured with a 1.65GHz POWER5+ processor: Comparable performance but at 68% less cost/tpmC!
- Outperformed the IBM eServer x325 by 159% at 56% less cost/tpmC!
- Defeated the lowest price/performance Dell PowerEdge 2900 by 18% at less cost/tpmC!
- Outperformed the lowest price/performance Dell PowerEdge 2800 by more than DOUBLE at less cost/tpmC!

The world’s best-selling tower server continues to make its mark with price/performance distinction documented in the latest TPC-C benchmark reported on March 27, 2007. The HP ProLiant ML350 G5, configured with 1 x 1.86GHz Intel Xeon E5320 Quad-Core processor with 8MB Cache and 20GB Fully Buffered DIMM main memory, achieved 82,774/tpmC at USD$0.94/tpmC running Microsoft Windows 2003 Standard x64 Edition SP1, operating system, and Microsoft SQL Server 2005 Standard x64 Edition SP1 database. The server also utilized HP 146GB and 36GB 15K Small Form Factor (SFF) and 36GB 10K SFF Serial Attached SCSI (SAS) disk drives, 2 Smart Array P800 and 1 Smart Array E200i Controllers, and 1 HP 5642 Rack containing 4 HP MSA70 StorageWorks Enclosures. This result outperformed the latest Dell PowerEdge 2900 result in performance and price/performance, with 4GB less system memory and a 25% slower processor.

HP Quad-Core server outperforms at a less cost/tpmC

Figure 1. Leading comparison of performance and price/performance results of the HP ProLiant ML350 G5 Quad-Core one-processor server vs. Dell and IBM one-processor results on the TPC-C benchmark.

More information about all servers can be found at the following Web page:
http://www.tpc.org

Results as of 3-27-07.
ProLiant ML350 G5 server leads competitors

Table 1. Results of TPC-C Performance Benchmark Results

<table>
<thead>
<tr>
<th>System</th>
<th>tpmC</th>
<th>USD$/tpmC</th>
<th>Availability</th>
<th>Database</th>
<th>OS</th>
</tr>
</thead>
<tbody>
<tr>
<td>HP ProLiant ML350 G5 1P Intel Xeon ES320 1.8GHz (1 processor/4 cores/4 threads)</td>
<td>82,774</td>
<td>$.94</td>
<td>03/27/07</td>
<td>Microsoft SQL Server 2005 Enterprise x64 Edition SP1</td>
<td>Microsoft Windows Server 2003 Enterprise x64 Edition SP1</td>
</tr>
<tr>
<td>Dell PowerEdge 2900 1P Intel Xeon E5345 2.33GHz, (1 processor/4 cores/4 threads)</td>
<td>69,564</td>
<td>$.96</td>
<td>03/09/07</td>
<td>Microsoft SQL Server 2005 Standard x64 Edition</td>
<td>Microsoft Windows Server 2003 Standard x64 Edition SP1</td>
</tr>
<tr>
<td>Dell PowerEdge 2800 1P Dual-Core Intel Xeon 2.8GHz (1 processor/2 cores/4 threads)</td>
<td>38,622</td>
<td>$.99</td>
<td>11/08/05</td>
<td>Microsoft SQL Server 2005 Standard x64 Edition</td>
<td>Microsoft Windows Server 2003, Standard (x64) Edition</td>
</tr>
<tr>
<td>IBM eServer xSeries 235 Intel Xeon 3.2GHz 1P (1 processor/1 core/1 thread)</td>
<td>31,920</td>
<td>$2.15</td>
<td>12/03/03</td>
<td>Microsoft Windows Server 2003 Enterprise Edition</td>
<td>Microsoft SQL Server 2000 Enterprise Edition</td>
</tr>
<tr>
<td>IBM System p5 520 1P 1.65GHz POWER5+ (1 processor/2 cores, 4 threads)</td>
<td>81,439</td>
<td>$2.99</td>
<td>12/22/06</td>
<td>Sybase Adaptive Server Enterprise 12.5.4</td>
<td>SUSE Linux 9</td>
</tr>
</tbody>
</table>

Why HP wins in performance

HP ProLiant ML350 G5

The HP ProLiant ML350 server, the best selling tower server in the world, is all new for its fifth generation with remarkable improvements to reliability, expandability, environmental, and performance features. If there was one word to describe the features of the HP ProLiant ML350 G5 server, it would be “Dual”. Dual-socket, Dual- and Quad-Core Intel Xeon 5000 sequence processors, dual redundant hot plug power supplies, dual redundant fans, and the smaller, lighter, and quieter “dual” purpose chassis gives you the choice of 2.5” SFF or 3.5” LFF SAS or SATA drives.

The HP ProLiant Advantage

HP Smart Array Controller P800

The HP Smart Array P800 is a 16 port, PCI-Express SAS controller. It ships standard with 512MB cache, dual batteries, and RAID 6 (ADG) support. This controller supports up to 108 hard drives and is the highest performing controller in the Smart Array portfolio.
For more information

HP ProLiant ML350 G5: [www.hp.com/proliant/serversml350g5](http://www.hp.com/proliant/serversml350g5)

HP ProLiant storage solutions: [www.hp.com/go/serial](http://www.hp.com/go/serial)


A full disclosure report describing these benchmark results has been filed with the Transaction Processing Performance Council (TPC) and is available upon request. The full disclosure report describes the benchmark hardware and software 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. Summaries are also posted 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 such as database throughput in transactions per minute (tpmC) and cost per transactions per minute ($/tpmC).

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