HP ProLiant DL785 G6 blasts to top of VMmark benchmark again
48-core result with new Six-Core AMD Opteron™ processors

- Beats NEC and IBM 8-socket competitors by more than 40%
- Scales 51.36% over ProLiant DL785 G5 32-core result
- Potential for more than 1,000 Virtual Machines per 42U rack

**HP performance brief**

**Benchmark:** VMmark

**Highest performing**
With the result of 47.77 @ 30 tiles, the ProLiant DL785 G6 with the newest Six-Core AMD Opteron processors is the highest performing server on the VMmark benchmark.

**Defeats Dell, IBM, Sun**
- Beats NEC Express5800/A1160 48-core result by 40.3%.
- Beats IBM System x3950 M2 48-core result by 41.1%.

**Increased scalability with Six-Core processors**
As compared to the previous generation Quad-Core result of the DL785 G5 of 31.56 @ 21 tiles, the Six-Core DL785 G6 result showed 51% increased performance.

**Business outcomes**
With this result, the DL785 G6 achieved 180 virtual machines (30 tiles x 6 virtual machines) and offers the potential to achieve more than 1,000 virtual machines per 42U rack!

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**Figure 1: Top 3 results on VMmark benchmark**

ProLiant DL785 G6 delivers the most Virtual Machines: 180

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Model</th>
<th>Tiles</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>HP ProLiant</td>
<td>DL785 G6</td>
<td>30</td>
<td>47.77</td>
</tr>
<tr>
<td>NEC Express</td>
<td>5800/A1160</td>
<td>24</td>
<td>34.05</td>
</tr>
<tr>
<td>IBM x3950 M2</td>
<td></td>
<td>24</td>
<td>33.85</td>
</tr>
</tbody>
</table>

The HP ProLiant DL785 G6 outperformed ALL other 8-socket/48-core competitors by more than 40% with a six tile advantage

Test results as of 08-11-09. For more details, please visit: [http://www.vmware.com/products/vmmark/results.html](http://www.vmware.com/products/vmmark/results.html)

**What are the benefits of using the HP ProLiant DL785 G6 for virtualization?**
HP understands customers’ business needs and is best equipped to deliver a consolidation and virtualization solution to fit those needs. The industry’s 8-socket workhorse, the DL785 G6, delivers leading expandability for x86 virtualization and enterprise applications. With the HP ProLiant DL785 G6, customers receive well-balanced 8-socket architecture for reducing cost through consolidation in a platform that provides ample I/O with 11 expansion slots and a large memory footprint of up to 512 GB RAM to support a very large number of virtual machines.
Table 1. System configuration for top 3 results on VMmark benchmark

<table>
<thead>
<tr>
<th>System Description</th>
<th>VMmark Version</th>
<th>Score</th>
<th>Published Date</th>
</tr>
</thead>
</table>
| HP ProLiant DL785 G6  
Six-Core AMD Opteron™ 8439 2.8GHz 
8 sockets/48 cores/48 total threads 
256 GB RAM | VMmark v 1.1.1 
VMware ESX v4.0 
Build 164009 | 47.77 @ 30 tiles | 08/11/09 |
| NEC Express5800/A1160  
Six-Core Intel Xeon X7460 2.66GHz 
8 sockets/48 cores/48 total threads 
128 GB RAM | VMmark v 1.1.1 
VMware ESX v4.0 
Build 164009 | 34.05 @ 24 tiles | 07/28/09 |
| IBM System x3950 M2  
Quad-Core Intel Xeon MP X7460 2.66 GHz 
8 sockets/48 cores/48 total threads 
256 GB RAM | VMmark v 1.1 
VMware ESX v4 
Build 157813 | 33.85 @ 24 tiles | 06/19/09 |

What VMmark measures

The VMmark benchmark is intended to measure the performance of virtualized servers on a system under test (SUT) so that customers can compare the capabilities of different platforms for virtualization. VMmark represents the performance of virtual machines within a server running VMware ESX and a set combination of operating systems and applications reflecting a typical datacenter environment. VMmark uses a collection of ‘subtests’ derived from commonly used load-generation tools as well as from benchmarks developed by the Standard Performance Evaluation Corporation (SPEC®). VMmark uses workloads that represent common applications in datacenters. It is important to note that VMmark is designed to benchmark the performance of the virtualization software and the hardware, and is not designed as a benchmark of any other software component.

Technology for better business outcomes

To learn more, visit
www.hp.com/servers/proliantdl785
www.hp.com/go/vmware
www.vmware.com/products/vmmark/overview.html

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