Executive summary
The HP ProLiant BL490c G6 establishes world-record performance result for 8-core server blades.

Key Take Aways:
- The HP ProLiant BL490c G6 with 2.93-GHz Intel® Xeon® X5570 processors beats the Cisco B200 server blade result of 25.06@17 tiles using the same processors and same VMmark Build.
- Excellent proof point for virtualization solutions.

Delivering the data center of the future with 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 a 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.

Common modular Infrastructure - Customers can use the same architecture to run and manage multiple workloads across servers, storage and networking.

Data Center Smart Grid - Unmatched functionality with Sea of Sensors to monitor energy consumption and automatically adjust cooling resources, and Thermal Logic, which can move power and cooling resources where needed when needed and includes Dynamic Power Capping to increase the capacity of the data center.

FlexFabric - Clients can avoid the latency and contention issues caused by traditional switching in the data center and instead integrate servers with a seamless, virtual network fabric.

Common Management Platform - Only HP, with products like the Matrix Operating Environment and Orchestration, has a common management platform that extends from infrastructure-to-application, across servers, storage and networks, managing both HP and other vendors' technologies.

Building blocks for the Converged Infrastructure
Only HP delivers servers that are optimized for dynamic, service-oriented and highly-virtualized environments. Offered as common building blocks for a converged infrastructure, HP servers set the standard in ease of management, energy efficiency and return on investment.
Customer benefits of virtualization deployment with HP platforms

HP ProLiant BL490c G6
HP understands customers’ business needs and is best equipped to deliver consolidation and virtualization solutions to fit those needs. HP ProLiant blades offer possibilities that no other vendor provides.

HP Virtual Connect, with Flex-10 technology, is the world’s first technology to fine-tune network bandwidth at the server edge and to adapt to virtual server workload demands on-the-fly. The simplest, most powerful connection to customers’ networks, HP Virtual Connect Flex-10 enables customers to simplify networks by reducing cables up to 94% without adding switches to manage, and provides four times more network ports per server blade, cutting network connection costs by up to 75% per virtual server.

HP BladeSystem Matrix, built with technologies including HP BladeSystem and blades such as the ProLiant BL490c G6, brings the benefits of shared services with the industry’s first converged infrastructure platform. Matrix combines disaster recovery, capacity planning, and automated provisioning with a self-service portal into one command center to unite physical and virtual worlds. Matrix delivers a wire-once infrastructure converging network, storage and compute to accelerate complex IT projects, simplify daily tasks, and continuously lower costs across the data center.

Bottom Line
We believe that HP is the only company that has everything it takes to deliver a converged infrastructure that enables exponentially improved server efficiency while increasing performance. HP has the intellectual property, the open integration, and the expertise to make it happen. The HP ProLiant BL490c G6 performance on the VMmark benchmark is just one of many proof points.

Table 1. BL490c G6 and other server blade results on the VMmark benchmark

<table>
<thead>
<tr>
<th>System Description</th>
<th>VMmark Version</th>
<th>Score</th>
<th>Published Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>HP ProLiant BL490c G6 2P</td>
<td>VMware v1.1.1</td>
<td>25.27@17 tiles</td>
<td>04/20/10</td>
</tr>
<tr>
<td>Quad-Core Intel Xeon X5570 2.93 GHz (2 processors/8 cores/16 threads)</td>
<td>VMware ESX v4.0 Build 164009</td>
<td>01/12/10</td>
<td></td>
</tr>
<tr>
<td>Cisco UCS B200 M1</td>
<td>VMware v1.1.1</td>
<td>25.06@17 tiles</td>
<td>01/12/10</td>
</tr>
<tr>
<td>Quad-Core Intel Xeon X5570 2.93 GHz (2 processors/8 cores/16 threads)</td>
<td>VMware ESX v4.0 Build 164009</td>
<td>06/14/09</td>
<td></td>
</tr>
<tr>
<td>IBM BladeCenter HS22</td>
<td>VMware v1.1.1</td>
<td>24.05@17 tiles</td>
<td>06/14/09</td>
</tr>
<tr>
<td>Quad-Core Intel Xeon X5570 2.93 GHz (2 processors/8 cores/16 threads)</td>
<td>VMware ESX v4.0 Build 161959</td>
<td>04/21/09</td>
<td></td>
</tr>
<tr>
<td>Dell PowerEdge M610</td>
<td>VMware v1.1</td>
<td>23.90@17 tiles</td>
<td>04/21/09</td>
</tr>
<tr>
<td>Quad-Core Intel Xeon X5570 2.93 GHz (2 processors/8 cores/16 threads)</td>
<td>VMware ESX v4.0</td>
<td>02/20/10</td>
<td></td>
</tr>
</tbody>
</table>

About the VMmark benchmark
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 data center environment. VMmark uses a collection of ‘sub-tests’ 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 data centers. 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. Test results as of 04-20-10.

For more information check out:

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