

Pentel writes a new chapter with the HP BladeSystem

Manufacturer replaces aging infrastructure, cuts costs, and improves reliability and performance



"The HP BladeSystem gives us an infrastructure we can depend upon as we continue to grow. It has cut costs, improved reliability and performance, and given us a highly scalable architecture."

– Matthew Staver, Pentel Information Technology Manager

Objective:

Pentel needed to replace an aging infrastructure, improve performance and reliability, reduce costs, and move to an industry-standard, highly scalable architecture.

Approach:

Pentel deployed the HP BladeSystem with 6 HP ProLiant BL465c AMD Opteron™ processor-based servers and one HP ProLiant BL 685c AMD Opteron™ processor-based server to run their Oracle databases and applications, and VMWare virtualization software. The new infrastructure runs all of Pentel's core business applications.

IT Improvements:

- Increased uptime, reliability, and performance
- New applications and servers can be deployed in minutes, rather than days
- Improved server manageability

Business benefits:

- Improved productivity due to faster application performance
- The time it takes to create reports has been reduced from 45 minutes to five minutes
- Reduction in power and cooling costs

Powering Oracle applications

Pentel is a world leader in the manufacturing and sale of writing instruments and art materials. Its U.S. headquarters are located in Torrance, California, and it has offices throughout the world. Pentel has been in business more than 60 years, invented roller ball technology and its automatic pencil remains a hallmark of the industry.

Pentel uses Oracle E-Business Suite 11i and Oracle Database 9i to run its core business processes. The servers it was using to run Oracle were aging, their performance lagged, and maintenance costs were high. In addition, they were occasionally unreliable. Pentel was looking for a new, industry-standard infrastructure to improve performance and reliability, reduce maintenance and management time, and cut costs.

Pentel turned to the HP BladeSystem, and deployed 6 HP ProLiant BL465c AMD Opteron™ processor-based servers and one HP ProLiant BL 685c AMD Opteron™ processor-based server. It uses VMWare virtualization software and Linux to run its Oracle applications, and also deployed an HP StorageWorks Enterprise Virtual Array (EVA) 4000 for storage. With the HP solution, Pentel has improved performance and up-time, reduced costs, and has a scalable, easily managed, reliable infrastructure. It has drastically cut the amount of time required to deploy new applications and servers, improved productivity due to faster application performance, and reduced power and cooling costs.

"With the HP ProLiant AMD Opteron™ processor-based servers, we now have an architecture that allows us to accomplish our core mission not just today, but well into the future," says Matthew Staver, Pentel Information Technology Manager.

Replacing aging servers

Pentel uses the Oracle E-Business Suite to run its business, and makes use of nearly every one of the suite's modules. The servers which powered the suite were aging, and required expensive maintenance to keep them running properly. In addition, the size of its Oracle Database 9i was growing, and performance was lagging.

"Our old servers were going into their sixth year, and what was sufficient to run Oracle years ago simply wasn't good enough anymore," Staver remembers. "The cost of maintaining the system was increasing. We were also seeing some performance issues, because as the database grew, so do database requests, and the servers were having problems keeping up."

"We also wanted to simplify management," he adds. "The old system had gotten too complex."

The old servers were running UNIX, and Pentel was having a difficult time finding staff with the expertise to maintain and develop the system. The company was also looking to switch to industry-standard Linux.

"We needed a server overhaul," Staver says. "I was looking for a more affordable, more easily managed infrastructure that could easily scale."

Choosing AMD Opteron™ processor-based HP ProLiant servers

Pentel requested evaluation units from several companies, including HP, and installed each in its data center to test their performance.

"The clear choice was HP ProLiant AMD Opteron™ processor-based servers, because they were a generation ahead of anything else we saw," Staver remembers. "Their performance and capabilities, their simple management, and the onboard administrator made them far superior to the competition."

In addition, Pentel chose HP based on the input of Enterprise Computing Solutions (ECS), a provider of IT infrastructure solutions.

"Enterprise Computing Solutions was instrumental in our decision to select HP over the competition," Staver says. "Their knowledge of Oracle and VMWare best practices on HP technology allowed us to migrate to our new environment with confidence."

Pentel also purchased an HP StorageWorks Enterprise Virtual Array (EVA) 4000, to eliminate server-attached storage, and build a reliable, scalable storage solution. In addition, it purchased VMWare Infrastructure 3 Enterprise Edition to take advantage of the virtualization capabilities of the HP ProLiant AMD Opteron™ processor-based servers. The servers run Linux, the Oracle E-Business Suite 11i, and Oracle Database 9i.

Building a more powerful, reliable, cost-effective infrastructure

By moving to HP ProLiant AMD Opteron™ processor-based servers, Pentel has improved reliability and performance, reduced maintenance costs, increased staff productivity, and built an easily manageable infrastructure that can be scaled as the company grows.

Applications and servers can be deployed much more quickly than in the past. Previously, it could take days to deploy them; now it literally takes minutes.

“Quick deployment is one of the biggest benefits for us,” Staver says.

“We have a test environment in which we need to make a copy of our production environment database. To make that clone used to be a multi-day process. Because of that, our testing environment was always out of date, sometimes by months, because it was so difficult to clone. In the new environment, using the servers and the SAN, we can have a fresh new clone in hours rather than days, and there's no production downtime.”

Pentel has been consolidating servers in its data center, has been able to remove one rack, and has already saved on power and cooling costs. It plans further consolidation, and expects to see more savings.

Manageability has been improved, thanks to HP Integrated Lights Out (iLO). Servers can be managed from a console, remotely, saving considerable time.

“In the past if I needed console access to a server—for example, if I needed to restart it—it could mean a drive to the data center, sometimes in the middle of the night. With HP Integrated Lights Out, I can quickly see the status of any machine, and if there's a problem, I can log right into it and fix it from anywhere.”

Application performance has increased considerably, and uptime has been improved, leading to greater productivity among Pentel staff and bottom-line benefits. Staff can be more productive because tasks complete more quickly.

“If it takes an hour for a report to come out of the Oracle database, business users will not have information when they need it,” Staver explains. “For example, a report of a snapshot of sales data now takes five minutes to run. It used to take up to 45 minutes. That's a big productivity improvement.”

“Reduced downtime and improved performance can help boost the bottom line,” Staver adds. “If Oracle's down, we can't ship and we can't accept orders. So improved uptime can translate directly to increased revenue.”

“Overall, the move to the HP BladeSystem has had a big payoff,” he concludes. “I know that I'm prepared for anything today, and well into the future as well.”

Solution at a glance

Primary application

Oracle E-Business Suite 11i

Primary hardware

- 6 HP ProLiant BL465c AMD Opteron™ processor-based servers
- One HP ProLiant BL 685c AMD Opteron™ processor-based server
- HP StorageWorks Enterprise Virtual Array (EVA) 4000

Primary software

- Oracle E-Business Suite 11i
- Oracle Database 9i
- Linux
- VMWare Infrastructure 3 Enterprise Edition
- VMWare VirtualCenter 2
- HP Integrated Lights-Out (iLO)
- Microsoft Windows Server 2003 R2 Datacenter Edition, Microsoft Windows Server 2003, and Microsoft Windows Server 2000

To learn more, visit www.hp.com

© 2007 Hewlett-Packard Development Company, L.P. The information contained herein is subject to change without notice. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

AMD, the AMD Arrow logo, AMD Opteron, and combinations thereof are trademarks of Advanced Micro Devices, Inc.

4AA1-4348ENW, 07/2007

