

**Objective**

Move to open systems to reduce operating expense, avoid licensing costs, and deliver incremental capacity

Approach

Migrate to HPE Integrity Superdome X Servers running Linux to avoid incremental licensing costs while improving performance and scalability

IT Matters

- Migrate Oracle databases to an open systems environment
- Ensure redundancy and disaster recovery for mission-critical ERP, human resources, data warehousing, and order processing applications
- Port 26 production databases from UNIX to Linux
- Preserve always-on availability of critical databases and applications

Business Matters

- Ensured 7x24x365 operations while porting business-critical applications and databases
- Saved \$200,000 per year in operating expenses
- Avoided incremental Oracle database license investments of \$200,000 as well as associated ongoing support costs
- Significantly improved server performance and long-term capacity
- Maximized ROI by shifting from a leasing model to a purchasing model for server infrastructure

Pella increases infrastructure performance and scalability

Modernizes IT and avoids costs by migrating to HPE Integrity Superdome X



Pella needed a reliable, scalable, and high-performing infrastructure that could also help reduce its Oracle software licensing costs. Pella selected the Superdome X running Linux to support its Oracle Business Suite and Oracle Database 10g environment and achieve its performance, scalability, and cost objectives.

Founded in 1925, Pella Corporation manufactures its premium-quality windows and doors at 10 locations across the United States. This industry innovator produces both standardized and made-to-order products according to lean manufacturing principles. Following a continuous improvement process model, Pella delivers high-quality products to customers while squeezing out waste as efficiently as possible.

“We embrace the scalability, flexibility, and long-term economics of Superdome X. It allows us to reduce our operational costs and avoid incremental Oracle licensing costs. In addition, we have the flexibility to scale up and scale out to support increased performance requirements for our mission-critical ERP applications over time.”

– Jim Thomas, Director of IT Operations, Pella

Thousands of customer orders flow into Pella’s Oracle-based enterprise resource planning (ERP) system each day from the firm’s network of showrooms as well as from leading retailers. Because its products are highly configurable, Pella custom manufactures a high-percentage of its windows and doors and operates a very large Oracle database to track the massive volume of configurable products it manages.

Pella sought to increase the performance and scalability of its Oracle Business Suite ERP applications and Oracle 10G database, while driving down operational costs and avoiding a significant Oracle licensing investment. Pella had been relying on HPE Superdome servers for nine years, and as the lease for its HPE Integrity Superdome 2 Servers was reaching its expiration date, Pella evaluated its options.

“We were extremely happy with Superdome servers and the HP-UX operating system but changes in the Oracle software licensing model drove us to evaluate open system platforms,” says Jim Thomas, director of IT Operations. “Many years ago it was the other way around, but now we’re making more strategic IT decisions based on software costs. We wanted to drive down our operation costs and avoid incremental licensing costs, so we looked at x86 server platforms running Linux so we could best manage our software license expenses.”

Selecting an industry standard server

After evaluating Oracle Exadata, Pella selected the HPE Integrity Superdome X Server to run its Oracle ERP environment. According to Kenny Nedder, IT manager of Infrastructure Projects and Architecture, “We made our final decision based on a combination of cost and comfort. We needed to make a platform migration to deliver necessary capacity and control our software licensing fees. We view both Hewlett Packard Enterprise (HPE) and Oracle as strategic partners, so this decision was critical to Pella. We’ve been very pleased with the Superdome platforms and they’ve done very well for us. We concluded we would minimize operating and software licensing costs by deploying Superdome X.”

Superdome X Server delivers a superior x86 availability experience to increase competitive advantage, and it offers groundbreaking performance so customers can respond rapidly to the demands of the business. Flexibility and long-term ROI were also major factors in its selection. “We’ve enjoyed a great deal of flexibility with our Superdome deployments,” Nedder explains. “For example, midway through our Superdome 2 deployment we upgraded the chipset to improve performance without altering our licensing model. We anticipate being able to make similar cost-effective enhancements throughout the lifecycle of Superdome X.”

Thomas adds, “We were pleased with the flexibility of the Superdome X price structure and the ability to size the platforms for our environment. We really embrace the long-term economics of the Superdome X platform. We have leased previous server platforms, but we purchased Superdome X Servers because we believe they will have a long lifecycle of useful service to our computing infrastructure.”

Migrating to Superdome X

The company chose to migrate to two HPE Superdome X Servers running Red Hat Enterprise Linux 6.5. They are deployed at two data centers in Iowa. The primary server has 40 cores and two blades paired together to run production applications. The second server has 30 cores and two blades. One of the blades supports failover, and the other supports a software development and quality assurance environment.

Pella is able to isolate critical applications from other applications with HPE’s unique x86 hard partitioning. On the primary server, the two blades are configured in a single nPar partition, and in the second server each of the blades is configured as a separate nPar partition.

The servers are connected over dark fiber. Pella’s separate hot-backup site for its production ERP environment links to the production system via HPE Serviceguard for Linux clustering technology. This set-up ensures business continuity in the event of a disaster and eliminates single points of failure. Pella has implemented a fully redundant configuration to support disaster recovery. HPE Data Protector is used to back up the servers as if they were individual servers. They use HPE products for most of the integrated backup.

Pella has successfully migrated from UNIX to Linux, and ported all 26 Oracle databases to run on x86 Superdome X Servers. The Superdome X Servers deliver significantly greater capacity and avoided incremental database licenses. Pella has improved performance and scalability while ensuring mission-critical reliability for its ERP applications. By combining smart technology with expert consultation, HPE Proactive Care Advanced Services provide a personalized and proactive hands-on approach to maintaining an agile, healthy, and reliable infrastructure.

Customer at a glance

Hardware

- HPE Integrity Superdome X Server

Software

- HPE Data Protector
- HPE Serviceguard for Linux
- Red Hat Enterprise Linux 6.5

Services

- HPE Proactive Care Advanced service

Pella relies on HPE Proactive Care Advanced service to help maintain peak performance for its Superdome X Servers and provide expertise to quickly manage and resolve problems. HPE Proactive Care Advanced service helps Pella prevent problems and ensure availability through preemptive firmware revision management and healthchecks. The servers are connected to the HPE support infrastructure where they are proactively monitored, and alerts are automatically generated if firmware updates or maintenance are required. “We’ve used Proactive Care on all of our Superdomes and find it helpful to have the proactive monitoring and expert assistance,” says Nedder.

Ensuring long-term scalability and performance

Since deploying the Superdome X Servers, Pella has reduced annual operating costs by \$200,000 while boosting server performance and avoided \$200,000 for incremental database licenses. The combined Oracle databases are roughly 15 TB, and the Oracle application and database infrastructure continues to grow. Pella is confident in the long-term scalability and performance of its hardware and software infrastructure.

“Our product set is highly configurable, with numerous combinations of frames, glass, finishings, and shades,” Nedder states. “The permutations of combinations that customers can order are in the billions, which places massive requirements on our database engine every day. But we’ve designed the performance, reliability, and redundancy necessary to support our operational goals, and we can scale up and scale out our servers, as needed over time, to support the growth of our business.”

Thomas concludes, “We run on fixed lead times with highly configurable products, and the Superdome X Servers are running our business. Migration to x86 and Linux went smoothly. We had very high expectations and Superdome X delivered on those expectations.”

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