

Baylor College of Medicine finds new IT muscle with an IBM Power Systems solution

Overview

■ Challenge

To provide an energy-smart IT infrastructure that enables high availability and supports future growth

■ Solution

Consolidating Baylor College of Medicine's 32 legacy Sun servers onto three IBM Power™ 570 servers with IBM POWER™ processor-based technology, running IBM PowerVM™ and IBM AIX®

■ Key Benefits

Reduces energy costs, saves valuable data center space, and enables a 30 percent performance improvement overall



Baylor College of Medicine, located in Houston, Texas, has a clear organizational mission—to be a national leader in advancing healthcare. Founded in 1900, Baylor has established a reputation as a pioneer in medical research and clinical services. Baylor's medical staff currently supports 355,000 patient visits per year, while researchers conduct critical medical studies, and more than 1,500 faculty members carry on the mission of medical education.

"It's a special place," says Al Reineking, Executive Director of IT Operations and Technical Services at Baylor College of Medicine. "We work in three

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– Al Reineking, Executive Director of IT Operations and Technical Services, Baylor College of Medicine

disciplines—education, research and healthcare. And we're located in the middle of the Texas Medical Center, one of the premier medical facilities in the world today. That makes it very interesting and very challenging all the time.”

The IT team behind Baylor's success has built a thriving technology infrastructure to support those services. When Baylor recently decided to add to its medical school, research and clinical facilities by building a hospital, their strategic plans included upgrading their existing data center, with an eye to alleviating hardware space constraints and replacing end-of-life Sun servers, all while establishing a foundation that could support the IT requirements of the new hospital.

Baylor needed an economical, energy-smart consolidation solution that would enable them to virtualize their IT environment and set the stage for a major SAP upgrade.

Just what the doctor ordered: A virtualization-enabled data center with room for growth

The Baylor IT team considered a number of vendor options for its data center upgrade project. They decided that the best solution for their mission-critical processing needs was IBM Power 570 servers with POWER processor-based technology, running IBM PowerVM. This configuration meets Baylor's need for performance, scalability and flexibility in an energy-efficient format.

In addition, IBM had the expertise required to help ensure the successful transition of existing data, databases and applications into the new environment—beginning with the need to maintain constant access to Baylor's SAP enterprise resource planning (ERP) system and to prepare for a major SAP upgrade. During the migration, Baylor also had to provide high availability to its electronic medical records system and patient management systems (including billing and scheduling), as well as those that support research facilities, grant management and e-mail.

“We are responsible for the infrastructure to support all these missions, and we take that very seriously,” says Jenifer Jarriel, Vice President of IT and Chief Information Officer of Baylor College of Medicine. “When we look at partnerships, we look at companies that have the same kind of alignment with our customer service perspective on excellence. We look for partners that are very dedicated, understand our business and are just as engaged and excited about what we're doing as we are. That's one of the many reasons we chose IBM—we felt that they aligned with our direction.”

IBM Migration Factory takes the pain and risk out of moving to a different platform

Baylor turned to Houston-based IBM Premier Business Partner Mark III to help the organization make the transition to IBM. They brought in the IBM Migration Factory to provide a seamless transition of workloads from 32 legacy Sun servers onto only three 570 servers, all running the AIX operating system.

“The IBM Migration Factory will work with you through the entire design, blueprint and implementation or migration from start to finish,” explains Mike Layton, Director of Enterprise Services and Information Systems at Baylor College of Medicine. “We didn’t feel like we were left on our own. There was a lot of relationship building in which we were able to work through the migration process very effectively and efficiently.”

Al Reineking agrees: “When the rubber hit the road, the Migration Factory produced exactly what they said they would with no problems at all. They took the pain and more importantly the risk out of migrating very sophisticated software applications from one hardware platform to a new one. In reality, it was a piece of cake.”

Layton says the consolidation yielded measurable benefits immediately: “There was a 60 percent reduction in footprint relative to the rack space of the SAP environment and better than 40 percent savings in both cooling and power.”

A transparent implementation and dramatic performance gains help Baylor meet client needs

“What was really important was the successful implementation, the go-live—that was the day when we brought the new systems up, and everything worked perfectly,” says Nancy Dillow, Director of SAP Support Services at Baylor. “Our customers didn’t notice a thing. That was one of the key measures of our success.”

In addition, Mother Nature threatened the Houston area with two hurricanes in 2008—Gustav and Ike. Baylor needed to run a non-scheduled payroll process to ensure that the medical center’s 9,500 employees would receive their paychecks in advance of mandatory hurricane evacuation. The new Power solution proved itself by completing payroll processing in only four hours, an impressive 213 percent improvement over the UNIX® system it replaced.

Solution Components

IBM hardware

- IBM Power 570
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"With the older Sun systems, we never would have been able to do that," notes Mike Layton.

IBM provides an optimized, cost-effective solution

By consolidating their legacy servers onto three Power servers and successfully virtualizing a range of critical applications, Baylor was able to reduce their data center footprint from eight racks to three. Moreover, Baylor has found that managing and maintaining the three new servers is considerably simpler than doing so for 32 servers. With fewer resources being spent on management and maintenance of hardware, Baylor has been able to concentrate efforts on more high-value projects, including making preparations to extend IT services to accommodate the new hospital.

With a mission-critical 24x7 IT infrastructure at stake, Baylor needed to be sure that the new solution would enable them to continue providing services to their vast client base around the clock. The IBM solution helps provide fault tolerance and high levels of redundancy to minimize single points of failure in the infrastructure. It also enables capacity on demand to help meet changing processing requirements.

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"I feel much better about the resources that we're using and the efficiency that we've been able to create," adds Jenifer Jarriel. "And we will continue that direction—we will continue to look at minimizing our footprint and gaining all the benefits we can from virtualization."

For more information

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For more information about the Baylor College of Medicine, visit: www.bcm.edu

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