CASE STUDY

Intel® Xeon® Processor E7 Family
Intel® Xeon® Processor 5600 Series

Healthcare
Mission-Critical Computing

Ensuring a dependable, efficient environment for enterprise applications

International pharmaceuticals and chemicals manufacturer Bayer migrates to Intel® architecture-based hardware to support key SAP on Oracle applications

Since end of 2009, Bayer Business Services, the Bayer group's global competence center for IT and business services, has planned to undertake a change of its data center technology to ensure a standardized and efficient platform to support processes within the business. As part of this, the company is migrating away from the RISC servers it previously used to run SAP and Oracle enterprise applications on Intel-based hardware from HP and IBM. This is powered by the Intel® Xeon® processor E7 family and Intel® Xeon® processor 5600 series in a virtualized environment. The new technology provides a more flexible, efficient and cost-effective platform for the applications, while delivering equal or improved performance compared to the previous hardware.

Bayer Business Services

"The new IBM and HP servers powered by Intel® architecture provide us with a platform that is better able to meet our future requirements for supporting the business. With Intel's support, we have ensured that the performance of our SAP and Oracle applications has remained at least as good as before, with some areas showing significant improvement."

Stephan Kucklick,
Bayer Business Services,
Global Engineering SAP

CHALLENGES

- **Standardization and efficiency:** Create a more flexible and energy-efficient data center environment for SAP and Oracle applications based on industry-standard technology and components
- **Cost-effective:** Reduce operational costs for server platform
- **Maintain quality:** Ensure new platform can deliver identical or greater performance, availability and reliability than previous hardware

SOLUTIONS

- **Broad assessment:** Established process to identify which available hardware solutions offered the best balance of cost and performance
- **RISC migration:** Determined that servers based on Intel architecture could fulfill aims for platform more effectively than existing RISC hardware
- **New technology:** Planned to transfer SAP on Oracle applications to new server models from IBM and HP, powered by the Intel Xeon processor E7 family and Intel Xeon processor 5600 series

IMPACT

- **Transfer process:** Currently overseeing the migration of applications to new server hardware
- **Rigorous optimization:** Specialist support from Intel experts during software benchmarking process has helped ensure performance targets are reached and even exceeded in places
- **Stronger price performance:** New platform delivers better performance for the price for essential business processes that rely on SAP and Oracle applications, furthering company objectives

An IT platform that supports the needs of the business

With a workforce of over 100,000 and an offering that includes some 5,000 products in total, chemicals and pharmaceuticals company Bayer is a truly global organization.

The company's extensive operations rely on the support provided by its centralized IT resources, distributed across three data center locations. As part of this, executives from around the organization use enterprise applications from SAP on Oracle to plan and analyze activity around the business. Bayer staff harness the full range of applications from SAP's Business Suite* along with Oracle Database* to access essential information on business performance and support enterprise resource planning (ERP), for example.

Over 30,000 employees within the company directly rely on the features in these applications to fulfill their responsibilities. The applications are supported by dedicated servers in the company's data centers, overseen by its internal IT team.

Bayer standardizes enterprise applications platform with server hardware supported by the Intel® Xeon® processor E7 family and Intel® Xeon® processor 5600 series

Renewing the data center

At the end of 2009, Bayer Business Services decided to undertake a comprehensive change of its data center IT platform to ensure its systems were optimally suited to supporting the ongoing needs of the business.

As part of this initiative, Bayer Business Services decided to upgrade the equipment used to support its SAP on Oracle applications to newer technology. It wanted a solution based on standardized hardware that used industry-standard platforms and components to provide an efficient, flexible and reliable platform. It aimed for the deployment to reduce the operational costs for the hardware and help establish a more efficient, sustainable approach to IT as part of the Bayer Data Center Green IT program, supporting the Bayer Climate program.

Bayer Business Services determined that replacing the existing RISC-based servers used to run the applications with hardware based on Intel architecture would provide a more effective platform to better support the company's operations.

For Bayer Business Services, it was important that this critical move could take place while still ensuring the quality, performance and high availability of its enterprise application services.

Making the move

After outlining its requirements for the project, Bayer Business Services established a process to identify suitable providers and products and determine which solutions offered the best performance at the most competitive price point.

It decided to migrate its SAP on Oracle applications to new servers from IBM and HP based on Intel architecture. It determined these would consist of a mixture of two- and four-socket servers powered by Intel processor technology, with multi-core processors with Intel® Hyper-Threading Technology (Intel® HT Technology) from the Intel Xeon processor E7 family used to drive the most demanding application processes, alongside Intel Xeon processors 5600 series.

Managed migration

The deployment at Bayer Business Services has been underway since 2010, with about half of the systems now migrated to the new platform. The migration is planned to be finished at end of 2012. The aim throughout has been to obtain the best possible performance from the new Intel-based servers, while minimizing the impact of the migration on end users within the business.

To this end, the deployment has been driven by the internal IT team at Bayer Business Services, with specialist support provided by Intel hardware and software experts as and when required. This has proved especially useful during the process of benchmarking and configuring the new server environment to ensure all the different elements perform optimally before moving to a production environment.

As a result of this detailed, careful approach to the migration, disruption to end users within the business has been minimized.

A stronger position

Thanks to the efforts of its internal team and the additional support provided by Intel, Bayer Business Services has ensured that the performance of its enterprise applications has remained consistent, with some systems running significantly faster than before, based on more efficient, standardized hardware and components offering the same level of reliability as before.

Spotlight on Bayer

With "Science For A Better Life" as its mission statement, Bayer is a global enterprise with core competencies in the fields of healthcare, nutrition and high-tech materials. The company's products and services are designed to benefit people and improve their quality of life. At the same time Bayer creates value through innovation, growth and high earning power. In fiscal 2011, Bayer employed 111,800 people and had sales of €36.5 billion.

Bayer Business Services is the global competence center of the Bayer Group for IT and business services. The focus is on services in the core areas of IT infrastructure and applications, procurement and logistics, human resources and management services, and finance and accounting. Stages of value creation range from consulting through the development and implementation of system solutions to business process outsourcing, the handling of entire business processes. In fiscal 2011 Bayer Business Services employed a worldwide workforce of 6,381 people and achieved sales of EUR 1,103 million. Bayer Business Services has its head office in Leverkusen, Germany.

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Intel® Hyper-Threading Technology (Intel® HT Technology) Available on select Intel® Core™ processors. Requires an Intel® HT Technology-enabled system. Consult your PC manufacturer. Performance will vary depending on the specific hardware and software used. For more information including details on which processors support HT Technology, visit http://www.intel.com/info/hyperthreading.

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