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Jebsen & Jessen SEA doubles performance and cuts 20 percent from TCO with SAP ERP 2005 software on IBM DB2 on IBM System p5

Overview

■ **The Challenge**
Jebsen & Jessen SEA needed to migrate its business-critical SAP ERP environment to a new database platform, both to ensure continued support and to enable greater performance and availability. The company also wanted to consolidate the physical server infrastructure supporting its ERP environment, so as to improve resource utilization and drive down the total cost of ownership.

■ **The Solution**
Jebsen & Jessen SEA engaged IBM to migrate its SAP R/3 4.6C software from Informix to IBM DB2 optimized for SAP software. The company also took the opportunity to replace seven servers running HP-UX with three IBM System p5 servers running IBM AIX, clustered using IBM High Availability Cluster Multi-Processing (HACMP). The SAP R/3 software was then upgraded to the SAP ERP 2005 application, which now runs in multiple logical partitions across two p5-550Q servers.

■ **The Benefits**
Rapid, risk-free migration of SAP R/3 4.6C software from Informix to DB2, with expert assistance from IBM; DB2 offers improved performance at low total cost of ownership; use of IBM Advanced POWER Virtualization for System p gives Jebsen & Jessen SEA much greater flexibility in allocating computing resources as business needs change; speed of data extraction to SAP NetWeaver Business Intelligence cut from twelve hours to four or five hours; total cost of ownership for entire infrastructure supporting SAP software reduced by 18 to 20 percent.

■ **Key Solution Components**
Industry: Chemicals, Telecommunications, Life Sciences, Wholesale Distribution, Electronics, Material Handling, Packaging Materials
Applications: SAP® R/3® 4.6C, SAP ERP 2005, SAP NetWeaver® Business Intelligence
Hardware: IBM System p5™ 550Q, IBM System x™ 336, IBM System Storage™ 3583 Tape Library
Software: IBM DB2®, IBM AIX® 5L v5.3, IBM HACMP™

The Jebsen & Jessen Group of Companies South East Asia (Jebsen & Jessen SEA) can trace its history back to a trading partnership formed in 1895 in Hong Kong. Today, the group has diversified into seven core businesses: chemicals, communications, life sciences, marketing, material handling, packaging and technology. Jebsen & Jessen SEA employs around 2,500 people in 50 subsidiaries in Singapore, Indonesia, Malaysia, Philippines, Thailand and Vietnam.

Jebsen & Jessen SEA uses SAP ERP software to manage practically every aspect of its regional business operations. The group has a single SAP software instance running its seven business divisions, subdivided into 50 company codes across six countries. The task of managing this complex, business-critical solution falls to Electra, a subsidiary of Jebsen & Jessen SEA originally formed as an internal department, and now an accredited SAP partner with external customers.

IBM | SAP

The IBM Informix database was not supported for its planned new SAP applications, so Jebsen & Jessen SEA considered its options for the future. The group needed to migrate to a new database while keeping risk and cost to a minimum, as Gopal Varutharaju, Director – Information Technology, explains: "SAP is an absolutely business-critical solution for Jebsen & Jessen, and we simply can't afford any downtime. We reviewed several platforms before choosing IBM DB2 on AIX, both for its stability and for the low cost of ownership. IBM offered an excellent price as part of its commitment to Informix customers, and helped us to achieve a smooth, risk-free migration to DB2."

Open approach, smooth migration
The migration of Jebsen & Jessen SEA's SAP ERP software to IBM DB2 was part of a general refresh of its platform for SAP software. The company was running HP-UX on a total of seven HP servers, and wanted to take the opportunity to consolidate physical systems, increase performance and enhance flexibility.

"When we selected DB2 as our new strategic database for SAP software, we saw a clear advantage in also moving to an IBM operating system and hardware platform," says Gopal Varutharaju. "IBM's approach was highly professional, transparent and open, and the sales team took the time to really understand our challenges."

Roy Lim, Operations Manager at Jebsen & Jessen SEA, adds: "We chose IBM DB2 first for its low total cost of ownership and second for its closeness in functional terms to our existing Informix database platform. The fact that DB2 is the strategic development platform for SAP itself was also an important factor in our decision."

Jebsen & Jessen SEA opted to migrate from Informix to IBM DB2 optimized for SAP software, simultaneously migrating from its existing HP-UX servers to the IBM System p5 platform running IBM AIX 5L V5.3. "We felt that the IBM hardware was technically superior, particularly with regard to its virtualization capabilities," says Roy Lim. "The IBM technical roadmap for the POWER architecture was clearer than the strategy from our existing vendor, and in addition IBM could offer a server that fitted our requirements precisely without being under- or over-powered."

Working closely with the internal team, IBM performed a successful test migration. IBM then proceeded to move all the data and systems over in the course of a single weekend, keeping the original systems running as a backup in case of any problems. "The migration ran smoothly – we were comfortable that there was no risk to normal business operations," says

Gopal Varutharaju. "The IBM consultants worked well with our own people, and the combined skills of the team made this a very successful migration."

Virtualization on System p5

Jebsen & Jessen SEA previously had seven physical servers for its SAP solutions. The company wanted to consolidate this environment to enable more efficient utilization of computing resources and thereby reduce the total cost of ownership.

"Moving to AIX on IBM System p5 servers allowed us to use IBM Advanced POWER Virtualization features to gain a much more responsive infrastructure at reduced cost," says Gopal Varutharaju. "We support a very diverse set of businesses, and within those businesses are a great variety of functional areas. Virtualization means we can switch resources seamlessly from one virtual system to another as priorities change, ensuring both that the business gets excellent performance and that we squeeze the maximum value from our investment in hardware. It also allows us to minimize downtime during planned upgrades by moving workload from one physical server to the other."

Following the migration from Informix to DB2, IBM helped Jebsen & Jessen SEA to upgrade its software to SAP ERP 2005. The company's SAP ERP 2005 production and quality assurance environments now run on two IBM System p5 550Q Express servers, clustered using IBM High Availability Cluster Multi-Processing (HACMP). These two servers have a total of 6 Logical Partitions and support a total of 850 named users of the SAP software. An additional p5-550 server with four cores is used for the SAP software test and development environment, and Jebsen & Jessen SEA also has an IBM System x336 to run its SAP Solution Manager software.

Performance up, TCO down

With its SAP ERP 2005 software running on AIX and DB2 on the System p5 platform, Jebsen & Jessen SEA has seen major improvements in performance at a reduced total cost of ownership. The overnight extraction of data into the SAP NetWeaver Business Intelligence application (SAP NetWeaver BI) previously took up to 12 hours, and now takes between 4 and 5 hours to complete. Says Roy Lim, "The extraction job was often still running at 8am, when many users already want to be performing analysis. It now typically finishes at midnight, so data is available to support business decisions first thing in the morning."

Gopal Varutharaju adds, "The general system performance is much better, though it is the improved speed in delivery of data to SAP NetWeaver BI that has really had the biggest impact for the business.

Most important, with the new IBM infrastructure we have improved performance while expanding our use of the SAP software – and yet the total cost of ownership is 18 to 20 percent lower than before."

DB2 Optimized for SAP software

Jebsen & Jessen SEA is testing several advanced features of IBM DB2 optimized for SAP software, including data compression and high availability disaster recovery (HADR) database replication, and plans to upgrade to

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DB2 9 in the near future. The company expects to save up to 50 per cent disk space and to enhance performance by compressing almost 1TB of data. Use of compression will make it faster to back up and restore data, enable more rapid access to data, and reduce storage costs.

Roy Lim comments, "One of the reasons that we chose DB2 was the built-in HADR database replication, which gives us high availability with no additional cost or complexity. The automatic configuration tools in DB2 optimized for SAP software are saving us time and manual work, and freeing up my team to focus on the applications rather than on database issues. We are now doing much more productive work with the same manpower as before."

ERP standardization drives business growth

Jebsen & Jessen SEA is expanding through both organic growth and corporate acquisition – the group typically buys two or three companies each year, often as a way of diversifying its portfolio of services. To manage this growing set of businesses, Jebsen & Jessen SEA has created a range of "business scenario" templates in its SAP ERP solution, designed to map easily to different types of business (for example, distribution-centric, production-centric or service-management-oriented).

"Having SAP ERP 2005 as our pan-regional ERP solution is a crucial benefit in terms of being able to grow the business easily," says Gopal Varutharaju. "We recently acquired a packaging company, and were able to get its 30 users onto the SAP software within three months. This meant that our top-level management very soon had a clear view of the performance of the new business, and that the

packaging company itself gained real-time information on inventory, costing, margins and so on – which had never previously been available. And of course the new company will also benefit from all of the best practices that are embedded in the SAP software."

Seamless interoperability

Following the migration to DB2 and the System p5 platform, Jebsen & Jessen SEA now has a single vendor – IBM – for the infrastructure that supports its SAP software. Roy Lim comments: "We have a single point of contact for technical issues, which tends to speed resolution and minimize administration, and we also have great confidence in the interoperability of all the components in the architecture. The SAP software works very well with the DB2 database, which in turn performs optimally on the IBM System p5 servers."

Gopal Varutharaju concludes: "The migration of our SAP ERP environment to IBM DB2 on IBM System p5 servers has delivered improved performance and availability, with far greater flexibility and responsiveness to changing business requirements. The ability to automatically reallocate computing resources as demand changes means that we can focus on long-term planning rather than on reactive, short-term planning. This will make it easier for us to support the regional business as it expands."

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