success story:

Munich RE

"In REALTECH, we have found a migration part-ner with proven technical expertise. Thanks to REALTECH's support, Munich Re can now count on a reliable and cost-effective server infrastructure for mission-critical, high performance SAP systems."

Stefan Zahrer,
IT project manager, Munich Re

Speeding up SAP systems while cutting costs

In 2007, Munich Re, one of the world's leading rein-surers, launched a project to reduce operating costs and streamline the performance of its own server landscape with more than 80 SAP systems. Another objective was to add more flexibility to the allocation of computing power. At the same time, Munich Re placed heavy demands on the technical stability of its infrastructure. To achieve these objectives, Munich Re decided to migrate its entire SAP landscape from HP-UX to Linux.

Reduced operating costs, better performance, and greater flexibility with maximum availability

In order to reduce the costs associated with its SAP landscape, which was previously based on HP-UX servers, Munich Re started to evalua-te and test the different technical alternatives as early as 2007. It was looking for a server architecture that would deliver cost-efficiencies and high performance, ensure adaptability to future needs, and provi-de the necessary computing power when needed.

One fundamental requirement was for the new solution to continue to ensure highest levels of stability and reliability. All of the Group's SAP systems were regarded as mission-critical in this regard. The results of their research were reflected in a business plan authored by the global infrastructure organization in 2008 that highlights the potential for savings over the next five years.

"The infrastructure business plan consists of a number of global initiatives that aim to permanently reduce the annual global operating costs by con-solidating in the different regions, by skillfully implementing our sourcing strategy, and by introducing innovative technologies. In the technology field, switching from proprietary UNIX servers to commodity Linux servers is an important cost reduction project," explained Karl-Heinz Neumann, Head of Global Infrastructure Services.

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One of the largest migration projects in Europe

Migrating the entire SAP landscape from UNIX servers to Linux turned out to be one of the largest SAP migration projects in Europe that involved impressive technical data. The objective was to move 84 SAP systems to a Linux platform in less than 20 months. To do so, REALTECH's experts migrated databases with a total size of over 100 TB, with some individual databases as large as 5.3 TB. Some of the data was converted to Unicode during the migration. Munich Re replaced eight full-scale HP Superdome high-end server computers and more than 30 HP-UX rack servers with HP Blades with an x86 64-bit architecture.

Success needs the right partner

Munich Re needed the assistance of an SAP-certified consulting firm to make this project a reality. They had to find a migration partner with outstanding technical expertise and previous experience with projects of similar complexity – and

REALTECH proved to be the perfect match for their needs. Backed by extensive expertise and many years of experience, the SAP consultancy has established itself as a trusted SAP consulting partner and Linux expert.

"REALTECH offered us a fixed-price migration with full visibility into its cost structure, had the necessary project experience, and was the only provider with a direct line to the SAP LinuxLab that was also able to send us seasoned Linux migration consultants," said Stefan Zahrer, IT Project Manager, Munich Re.

Handling the complexity of the change management process

The Group's change management proved to be a real challenge during the migration project. In addition to migrating the systems, the project also involved a global roll-out of Munich Re's largest SAP application, importing data from discontinued systems, and continuing development projects to a

sometimes considerable extent. On top of that, Munich Re was moving its infrastructure operations to an offshoring model. Consequently, the migration of every single SAP system was always closely linked with a number of other requirements and considerations. The migration therefore required thorough preparation and strict adherence to migration deadlines. At the same time, it was necessary to respond flexibly to ad hoc requirements related to development and maintenance of the systems. REALTECH developed dedicated cut-over plans to address these challenges.

These plans allowed the project team to simultaneously migrate as many as six SAP systems during some weeks. Production systems were migrated over the weekends. The migration of ERP systems was usually coupled with the migration of the corresponding BI systems. A data volume of 7.6 TB was migrated over the course of 21 hours for the Group's two largest production systems. REALTECH was on site with four of its migration experts to ensure smooth project execution.

"I am very impressed with the way this migration project was handled. Not only did we achieve our cost objectives, but, more importantly, we could rest assured that this would in no way adversely affect our business and the availability of our systems. All in all, a resounding success," explained Karl-Heinz Neumann.

The total investment in the Group's server infrastructure was reduced by 80 percent

The new server infrastructure is built on the technological advances of recent years, which can be used to their fullest benefit when combined with Linux. High-cost servers with processors that were developed to deliver enormous computing power (PA-RISC, Itanium) were replaced with new blade servers with commodity processors (Xeon, Opteron).

Munich Re was able to reduce the procurement costs for SAP servers to one-fifth of the original investment without having to sacrifice performance and availability.

„With the migration of the SAP systems, we have completed the consolidation of our server infrastructure. Applications and databases at Munich Re are now entirely based on servers with a consistent processor architecture. This level of standardization has significantly reduced our operating costs. It is a necessary prerequisite for efficient outsourcing and the continued automation of our service delivery processes." Andreas Thomé, Head of IT Systems Design & Operations, Munich Re.

Excellent performance data

- Practical experience shows that batch processing times of large SAP systems are reduced by more than 20 percent when compared to recent HP-UX servers.

- This improvement was achieved with the latest Opteron processors as opposed to the previously used Itanium-2 Montvale 1.6 GHz/18MB processors. The number of CPU cores and SAP processes remained constant.

- The latest 16-core x86 Blades allowed Munich Re to achieve data throughput rates of up to 1.6 TB/h (3.5 Gbit/s) for database restores with 16 parallel processes. The data was written to a storage system with a 4 Gbit SAN connection.

Munich Re stands for exceptional solution-based expertise, consistent risk management, financial stability, and client proximity. It takes on risks worldwide of every type and complexity. Its experience, financial strength, efficiency and first-class service make Munich Re the first choice for all matters relating to risk and one of the world's leading reinsurers. In the financial year 2009, the Group achieved a profit of EUR 2.56bn on premium income of around EUR 41bn. Munich Re operates in all lines of insurance, with around 47,000 employees throughout the world.

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