



## RI-Solution boosts performance, cuts license fees and reduces storage costs with DB2 for SAP application

### Overview

#### ■ The Challenge

For years RI-Solution has had to cope with huge growth rates in data volume and systems workload of more than 100 per cent per year. Fast growth makes enormous demands on an IT infrastructure, requiring an effective strategy for flexibility and scalability. The company operates from three locations (Munich, Auerbach, and Vienna) serving its parent companies BayWa AG and RWA AG as well as other group companies in the agriculture, technology, energy, building materials, and gardening stores markets.

#### ■ The Solution

Migrated from Oracle to IBM DB2 for Linux, Unix and Windows for all its SAP applications, and implemented DB2 9.5 Deep Compression for data.

#### ■ The Benefits

DB2 Deep Compression saved up to 40 percent in total storage capacity required, translating into direct storage savings. Moving from Oracle to DB2 has reduced related database maintenance costs by almost 30 percent. In the immediate future, RI-Solution does not need to add further storage devices, avoiding significant CapEx and reducing system complexity.

#### ■ Key Solution Components

Industry: Agriculture, construction, energy, manufacturing  
Applications: SAP® ERP applications, SAP for Retail, SAP NetWeaver® Portal, SAP NetWeaver Process Integration, SAP ERP Human Capital Management, SAP NetWeaver Business Warehouse, SAP Solution Manager, SAP ERP with EHP 4  
Software: IBM® DB2® 9.5 for Linux, Unix and Windows  
Hardware: HP  
Services: RI Solution , IBM Software Services for Information Management.

BayWa operates throughout Europe in the agriculture, building materials and energy industries. In 2009, BayWa's 16,200 employees achieved annual revenues of €7.26 billion, generated via a diverse range of business activities, including DIY and beverages stores, mineral oils and renewable energies.

The company runs its core business processes on a comprehensive suite of SAP applications. The integrated view of operations offered by the SAP software enables this very diverse enterprise to be managed as a single business, with tight control of costs.

In the group, RI-Solution is responsible for operating and supporting professional IT applications on SAP and Microsoft platforms for 10,000 users at more than 1,000 locations across Europe. IT systems and infrastructure includes more than 150 servers in a data center of more than 700 square meters. RI-Solution processes more than 120 million transactions each month in the SAP environment alone.

*“RI-Solution has realized the predicted database license cost saving of almost 30 percent. The migration project as a whole has produced a return on investment within a year.”*

Rainer Kastner of the SAP Competence Center for RI-Solution

#### **Strategic solution**

RI-Solution is responsible for ensuring that the server and applications hosting and management for the BayWa group is as cost-effective as possible, continuously investigating ways to cut costs. The objective is to find a strategic solution that addresses the challenges of rising costs and storage complexity, delivering operational and business benefits, and producing a return on investment in less than three years.

RI-Solution decided to migrate its databases to IBM DB2 for Linux, Unix and Windows, highlighting a number of potential benefits, as Rainer Kastner of the SAP Competence Center for RI-Solution explains: “The main benefit and business driver was the predicted reduction in license and associated database maintenance costs by migrating to DB2. While Oracle

licenses cost 11 percent of the SAP application value, DB2 is priced at 8 percent when purchased as an OEM license with the SAP license. In addition, because SAP application maintenance fees are calculated according to the total software price for both the SAP solutions and the supporting database, the annual maintenance fees are also lower for the DB2 solution.”

“We also expected that DB2 Deep Compression would enable us to save about a third of the total storage capacity cost, and avoid unnecessary investment in additional devices.”

#### **Proving the concept**

RI-Solution and IBM created a Proof of Concept that demonstrated the migration path from Oracle to DB2, and proved that DB2 Deep Compression for data could deliver storage savings of up to 40 percent on typical data sets. Deep Compression compresses data rows by replacing patterns of values that repeat across rows with shorter symbol strings. Because the total data volumes to be moved into memory are reduced, compression can also tend to improve performance as data becomes available more quickly, compensating for the increase in processor workload.

Rainer Kastner comments, “RI-Solution was impressed by the results from the Proof of Concept, and by the excellent work delivered by the IBM team, and this gave us the facts needed to confirm the business case and the potential performance improvements.”

In total, 11 Oracle databases were migrated to IBM DB2, from a database



of 200 GB accessed by ten users up to a 6 TB database supporting 9,000 users. In total, BayWa processes around 7 million transactions daily during peak periods. The migration was performed by IBM migration experts while the RI-Solution team was responsible for administration and testing throughout the process. RI-Solution turned on DB2 Deep Compression during the migration, while the Unicode conversion was performed in a later process. Migration of the largest system took 32 hours, and the total business downtime was 46 hours.

“The teamwork as very productive and effective,” says Rainer Kastner. “IBM provided a single contact person, and the migration processes ran smoothly throughout a one-and-a-half year project.”

### **Cut data volumes, boost performance**

Across all the migrated databases, BayWa has saved up to 40 percent in data volumes, with an average of 30 percent. For very large database operations, such as SAP NetWeaver Business Warehouse queries, users have experienced significant performance improvements as DB2 delivers data more quickly.

Rainer Kastner comments, “DB2 Deep Compression translates into direct storage cost savings, both freeing up existing space and avoiding the need for additional storage devices. Additionally, RI-Solution has realized the predicted database license cost saving of almost 30 percent. The migration project as a whole has produced a return on investment within a year.”

“We know from our own experience that DB2 is easy to operate, and allows us to increase our staff efficiency, as many database administration tasks are automated. The IBM and SAP Global Alliance means that the SAP and DB2 release cycles are co-ordinated, enabling us to take advantage of advanced productivity, automation and technical features as soon as they become available, offering lower operational costs for BayWa and other RI Solution customers.”

Rainer Kastner concludes, “SAP applications combined with DB2 enable RI-Solution to meet its immediate operational cost reduction objectives, and solve the longer-term strategic need to manage its critical data that will allow it to scale flexibly as the business of customers expands internationally.”

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Rainer Kastner of the SAP Competence Center for RI-Solution





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