



Knauf builds high-speed business insight with SAP and IBM

Knauf Group, headquartered in Iphofen, Germany, manufactures world-leading insulation materials, construction equipment and tools. With 26,000 employees and 150 production facilities in 60 countries, Knauf achieved sales of EUR 6.27 billion (USD 8.12 billion) in 2013.

Knauf has enjoyed rapid business growth in recent years, manufacturing, selling and distributing consistently increasing volumes. As a result, essential production planning calculations became highly complex and could no longer be executed rapidly, leaving staff and executives without timely access to business-critical reports.

Knauf relies on SAP applications to manage almost every aspect of its business, and accelerating delivery of data was vital to efficiency and continued growth.

Roland Frischatzki, IT Process Manager, SAP Technology & Management at Knauf Gips KG, says, “We selected key reports and defined performance thresholds that we wanted to achieve to speed up information flow. To ensure the highest level of service to our business users, we looked for innovative technology solutions to support our broad reporting requirements.”

Implementing a cluster solution for SAP HANA

Knauf operates the SAP Business Warehouse application to provide enterprise-wide access to core business information, reports and analysis.

The solution, which supports some 1,300 users, draws data from a wide range of systems including SAP ERP, profitability analysis information, SAP Customer Relationship Management,

Overview

Challenge

As construction manufacturing specialist Knauf expanded, increasing data volumes overwhelmed the company's ability to plan and optimize its production efficiency, threatening the ability to grow.

Solution

Knauf teamed with IBM and IBM Business Partner PROFI Engineering Systems AG to migrate its business-critical SAP Business Warehouse application to the IBM® Systems solution for SAP HANA.

Key benefits

Enables complex production planning for increased efficiency. Reduces runtimes of business reports by more than 91 percent. Provides consistently fast response times for 1,300 users globally.

Business Challenge

As construction manufacturing specialist Knauf expanded, it collected increasing volumes of sales, operational and management information.

It soon became clear that existing systems were unable to fully analyze this data, and Knauf was unable to optimize its production for maximum efficiency, threatening the company's ability to grow.

Microsoft SQL Server databases, Microsoft Access databases and Microsoft Office Excel spreadsheets.

Looking for ways to accelerate the results available from its SAP Business Warehouse solution, Knauf chose to migrate it to the SAP HANA platform, which offers unique database technologies to provide near real-time query response. SAP HANA is available in pre-configured solution packages from multiple vendors.

Considering its requirements for performance, cost-efficiency and system flexibility, Knauf selected the IBM® Systems solution for SAP HANA. The solution is delivered on IBM System x enterprise servers featuring exclusive IBM X-Architecture® innovations that provide x86 servers with advanced features.

With the IBM Systems solution for SAP HANA, Knauf can easily create a multi-node scale-out configuration by networking multiple nodes together, enabling support for larger SAP HANA memory sizes. This modular approach helps Knauf to invest in a workload optimized solution for SAP HANA and grow its infrastructure as its SAP HANA environment grows.

“Thanks to more detailed planning made possible with the IBM Systems solution for SAP HANA, we can now work more efficiently and significantly streamline our budgeting processes while providing much more detailed budgeting functionalities.”

Stefan Zöller

IT Process Manager, BI
Competence Center
Knauf Gips KG

Knauf worked closely with PROFI Engineering Systems AG, the company's long-time IBM Business Partner, and with IBM to deploy eight IBM Systems solution for SAP HANA nodes with SUSE Linux Enterprise Server for SAP Applications in a high-availability configuration.

This enabled Knauf to implement one



stand-by node per cluster to create an advanced disaster recovery solution. The configuration supports auto-host failover – that means, if one node in the SAP HANA cluster becomes unavailable, the stand-by node automatically becomes active to avoid performance issues for business users.

The IBM System x3950 X5 servers are equipped with four 10-core Intel® Xeon® E7-8870 processors. These top-of-the-line processors deliver performance designed to handle data-demanding workloads with improved scalability and increased memory and I/O capacity. Advanced reliability and security features work to maintain data integrity, and maximize the availability of mission-critical applications.

The eight IBM Systems solution for SAP HANA nodes are distributed across two data centers. Using the IBM General Parallel File System (GPFS™), Knauf and PROFI have implemented two separate four-node SAP HANA clusters, one at each data center. The primary cluster runs the production system and the secondary cluster supports the development and test environment .

Roland Frischatzki explains, “We run

our IT services for 300 global locations centrally at our headquarters. A high availability solution is essential for Knauf to ensure business continuity and minimize the impact of technical failures. In an event of disaster where the primary cluster fails completely, we can run our production environment on the backup cluster, minimizing interruption for our users. Having full support from IBM for the solution makes sure we can operate our systems smoothly at all times.”

High-speed implementation for faster business results

IBM Business Partner PROFI Engineering Systems, IBM, SAP and Knauf implemented the cluster solution within six months and completed the first month-end report without any issues.

Roland Frischatzki says, “The collaboration between the different project partners was very good. We had regular calls every week to push the project forward. In a comprehensive testing phase of about two weeks, we examined all aspects of the solution to iron out any issues before we went into production. This approach paid off and we went live without problems.”



Solution

To increase efficiency of production planning and provide better customer service, Knauf worked with IBM and PROFI Engineering Systems, an IBM Business Partner, to deploy and migrate its SAP Business Warehouse solution to the SAP HANA platform.

The company selected the IBM Systems solution for SAP HANA, based on eight IBM System x3950 X5 workload optimized servers featuring powerful Intel Xeon E7 processors.



Key Solution Components

Industry

Industrial Products

Applications

SAP HANA™, SAP® Business

Warehouse, SAP Extended

Warehouse Management

Hardware

IBM® Systems solution for SAP

HANA, based on IBM System x3950

X5 with Intel® Xeon® E7-8870

processors

Software

IBM Director, IBM General Parallel

File System (GPFS™), SUSE

Linux Enterprise Server for SAP

Applications

IBM Business Partner

PROFI Engineering Systems

While Knauf was building up skills, the company out tasked operations of the IBM Systems solution for SAP HANA to IBM Business Partner PROFI Engineering Systems.

Roland Frischtatzki explains, “This is a new technology for us – two specialists from PROFI Engineering Systems handle all requests around SAP HANA. PROFI provides 24/7 support and set up a central monitoring solution with IBM Director, so we always know the status of our systems.”

Knauf also runs about 65 SAP systems for 8,500 users worldwide, including SAP ERP, SAP Customer Relationship Management, SAP Supplier Relationship Management, SAP Master Data Management, SAP Identity Management and SAP Mobile Platform.

Providing rapid access to business data

The IBM Systems solution for SAP HANA enables Knauf to execute complex planning tasks that were not possible before. Stefan Zöllner, IT Process Manager BI Competence Center at Knauf, explains, “Some calculations took too long or were not possible at all with the old solution.

“For example, the improvement in

“Important business reports, for example sales and distribution planning, are now calculated 91 percent more quickly in just 30 seconds instead of six minutes, helping us to provide better customer service based on more accurate forecasts and faster access to business data.”

Roland Frischtatzki

IT Process Manager, SAP
Technology & Management
Knauf Gips KG

data loading, which is now 75 percent faster, enables us to generate the SAP CO PA profit and loss analysis much more rapidly. For one major company, the CO PA report that previously took 4 hours now takes only 60 minutes, a 75 percent improvement.

“Thanks to more detailed planning made possible with the IBM Systems solution for SAP HANA, we can now

“The migration to the IBM Systems solution for SAP HANA was very successful. The IBM solution boosted response times of our SAP Business Warehouse and is very reliable, providing the business continuity we need.”

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work more efficiently and significantly streamline our budgeting processes while providing much more detailed budgeting functionalities. Shorter sales and marketing planning cycles and more advanced features including quick drill-down capability improve the quality and accuracy of our marketing strategies.”

Knauf staff can now access business information much faster, boosting productivity across the company.

Roland Frischtatzki says, “We can now perform ‘what if’ analyses easily. Important BI functionalities, such as a complete disaggregation of high-level budget targets to article and customer line items, are now calculated 91 percent more quickly – in just 30 seconds instead of six minutes, helping us to provide better customer service based on more accurate forecasts and faster access to business data.”

In the past, creating the overall monthly profit and loss report including about 250 group companies has taken two hours.

With the IBM Systems solution for SAP HANA, processing time was cut by 83 percent to only 20 minutes, substantially accelerating month-end closing and enabling executives to manage the company more efficiently because core financial information is available more rapidly.

Stefan Zöller adds, “Additionally, to assist managers and staff analyzing business figures, we are now planning to build and roll out a mobile reporting solution. In the future, staff will be able to use their iPhone, iPad or other smartphones or tablets to check the latest sales data instantly, wherever they are.”

Business Benefits

- **Reduces runtimes of business reports by more than 91 percent.**
 - **Cuts critical profit and loss analysis report time from 4 hours to 60 minutes, a 75 percent reduction.**
 - **Enables complex production planning for increased efficiency and faster customer service.**
 - **Provides consistently fast response times for 1,300 users globally.**
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As a result of the migration of the SAP Business Warehouse to the IBM Systems solution for SAP HANA, the company experienced an improvement of response times for all reports by between 50 and 70 percent, even during peak hours. Knauf can now provide consistently low response times to 1,300 business users globally.

Roland Frischtzki concludes, "The migration to the IBM Systems solution for SAP HANA was very successful. The IBM solution boosted response times of our SAP Business Warehouse and is very reliable, providing the business continuity we need."

For more information

To learn more about IBM Systems solutions, contact your IBM representative or IBM Business Partner, or visit the following website: ibm.com/systems/x

About PROFI Engineering Systems

PROFI Engineering Systems AG offers system integration and infrastructure solutions for companies of all sizes. An IBM Business Partner since 1985, PROFI employs 350 people at 14 locations, and serves more than 1,300 customers.

To learn more about products, services and solutions from PROFI Engineering Systems, please visit: www.profi-ag.de