Business Challenge

Retailers operate in a dynamic industry, combining high volumes, low margins and intense competition. How could Würth Group streamline operations to trim costs, boost profits and win the retail race?

Transformation

To ensure the highest levels of customer satisfaction and to sharpen its competitive edge, Würth Group improves business efficiency by leveraging the latest technologies from IBM and SAP. The company aims to generate game-changing sales insights, to help drive increased revenues and further enhance customer service.

Business benefits:

Speeds
solution deployment and scalability, enabling rapid response to market conditions

86% cut
to number of SAP HANA servers, streamlining operations and reducing complexity

43% less
time to update solution stack including SAP HANA software and infrastructure

Würth Group

Enhances efficiency and generates new retail insights with SAP HANA on IBM Power Systems

Würth Group, headquartered in Künzelsau in Germany, is a world market leader in assembly and fastening materials. The group operates more than 400 subsidiaries in over 80 countries, and employs more than 71,000 people, managing about 125,000 products. Würth Group achieved total sales of EUR11.8 billion in the 2016 financial year.

"With SAP HANA and IBM Power Systems we have the right technology to better serve our worldwide customers."

Harald Holl, Head of Infrastructure, Würth Group

Share this

Benefits in detail

- Simplifies system administration, cutting time to update the solution stack including SAP HANA software and infrastructure by 43 percent, so that it takes just days instead of a whole week

- Consolidates two separate environments onto a single infrastructure with standardized operations and management processes, boosting efficiency

- Moving from seven-node scale-out cluster to scale-up configuration reduces number of servers by 86 percent, saves rack space, and significantly cuts power consumption and costs

- Faster deployment of development systems speeds up implementation and rollout of innovative solutions to strengthen competitive advantage

- Enables use of the most modern tools to provide mobile users with new features and advanced in-memory data analytics to increase staff productivity

- Supports easy scalability to protect infrastructure investments

Facing new, intense competition

As a leading retailer of assembly and fastening materials for professionals, Würth Group continuously adapts to a constantly changing market.

Jörg Engel, Team Lead IT – SAP Basis, UNIX and Databases at Würth Group, begins: "Traditionally we relied on direct, face-to-face sales, but nowadays business is moving to e-commerce and e-procurement. The ability to move at speed is vital to delivering a seamless retail experience, particularly for customers whose only experience is web-based transactions."

Stefan Beer, BI Competence Center Lead at Würth Group, continues: "We have a high-volume, low-margin business model, so efficiency is key to staying successful. Facing fierce competition from online shops, we wanted to become faster and more efficient. Intelligent online features, such as cross- and up-selling recommendations, are crucial to actively engage with customers, maximize revenue and support business growth."

Harald Holl, Head of Infrastructure at Würth Group, adds: "We are a global company, with employees and customers all over the world. As we adjust to new challenges, we cannot compromise on reliability. We need to ensure round-the-clock availability of mission-critical business applications, or risk losing business – both online and in-store."

How could Würth Group boost process efficiency and enhance staff productivity, yet simultaneously reduce operating costs and increase profit margins – all while providing outstanding customer service?

Enabling digital transformation with cutting-edge technology

To manage its core business processes, Würth Group operates an extensive SAP ERP application and database landscape running on the IBM® Power® platform, including a large SAP Business Warehouse application running on IBM Power System E880 servers.

At Würth Group, IBM Power Systems is the long-term strategic platform. Most of the company's SAP applications were already running in fully virtualized and highly automated environments on IBM Power Systems with the IBM AIX® operating system and Oracle Database. From many years of successful operation, Würth Group has gained extensive experience of the high levels of stability and reliability that IBM Power Systems servers deliver.

Additionally, for its SAP Business Warehouse application, the group ran SAP HANA® hosted on scale-out x86 processor-based clusters. Managing the multiple servers in the cluster absorbed considerable time, and made it difficult to add computing and memory capacity to meet changing business demands. The Würth team decided to review its cost-efficiency options for the SAP HANA solutions, working with IBM and IBM Premier Business Partner SVA System Vertrieb Alexander.

Jörg Engel explains: "We realized that we could greatly simplify our IT infrastructure and reduce our administration workload. The solution was to move our large

SAP HANA deployment from a scale-out x86 processor-based cluster to the IBM Power Systems platform in a scale-up configuration, running on SUSE Linux Enterprise Server for SAP Applications."

The joint SVA, IBM, SAP and Würth Group team collaborated closely to optimize the migration process, accelerating the procedure and reducing the migration risk.

Harald Holl expands: "To minimize downtime, we combined two migrations in one. We moved to SAP HANA 2, the next generation of the SAP HANA platform, and to the version of the SAP HANA database for IBM Power Systems architecture at the same time, which proved to be a success.

"We wanted a future-proof solution, and by taking advantage of the new little-endian mode on the IBM POWER8® architecture, we accelerated the migration and reduced the project risk by avoiding a separate data migration step. We could simply use the standard process of backup and restore to migrate from x86 servers to IBM Power Systems."

Reaching new levels of efficiency and speed

Moving SAP HANA to a scale-up architecture on IBM Power Systems enabled Würth Group to consolidate two separate environments onto a single infrastructure, standardizing operations and management processes.

Jörg Engel says: "We slimmed down the number of physical servers and SAP HANA instances from seven to one, an 86 percent reduction, cutting power consumption and operating costs.

Seven servers require much more time to manage than one. Relying on fewer components and systems also reduces the risk of errors that could impact performance or availability."

Karsten Hespelt, Linux/Unix & SAP HANA System Administrator at Würth Group, confirms: "Managing a scale-out cluster is both complex and time-consuming. Running SAP HANA on IBM Power Systems simplifies system administration, allowing us to upgrade the full solution stack, including firmware, operating system and SAP HANA, in days instead of one full week – a time saving of 43 percent."

The advanced virtualization technology provided by the IBM Power Systems platform offers additional significant benefits for Würth Group. The company can now change the size of its SAP HANA databases dynamically, and add computing and memory capacity as needed to achieve the best performance.

Harald Holl reports: "We struggled to expand our scale-out solution, in part due to short server lifecycles. With IBM Power Systems servers we can add processor capacity and memory even as the precise models change over time, protecting our infrastructure investment. Even better, we can add resources at the push of a button, often without the need to buy or install any new components, increasing availability and minimizing the need for planned maintenance windows."

Furthermore, the company can now run SAP HANA databases alongside other SAP applications on the same infrastructure, helping Würth Group to use the available computing and memory resources more efficiently. Jörg Engel

remarks: "Today, we can balance all our SAP application and database workloads more easily, and use our capacity much more flexibly – something we could not do before. Consolidating our SAP solutions onto the IBM Power Systems platform enables us to provide better performance while reducing management overhead and operating costs."

Moving to SAP HANA enabled Würth Group to provide up-to-date business data for analytics and reporting in every country around the world at 07:00 local time every single day. Stefan Beer says: "The key benefit for our organization after deploying SAP HANA on IBM Power Systems was that we can reduce the loading time from the operational systems to our SAP Business Warehouse systems tremendously.

"In our statistics environment, we use SAP Business Warehouse powered by SAP HANA running on IBM Power Systems. Here we deploy hundreds of dashboards, analytical applications and reports. About 70 percent of our analytics workload comes from our sales staff. Getting quick insight into sales data is essential for our teams to compile tailored offers, and to ensure seamless and efficient customer service. The reporting capabilities also include fast ad-hoc analyses, to give our staff more flexibility.

"For example, we even rely on SAP HANA running on IBM Power Systems to generate cross- and up-selling recommendations for our online shop, making the most of our data to help maximize revenue."

"Consolidating our SAP solutions onto the IBM Power Systems platform enables us to provide better performance while reducing management overhead and operating costs."

Jörg Engel

Team Lead IT – SAP Basis, UNIX and Databases
Würth Group

Key components

Applications: SAP® Business Warehouse powered by SAP HANA®, SAP CRM powered by SAP HANA, SAP ERP, SAP ERP Human Capital Management, SAP Extended Warehouse Management, SAP Fiori®, SAP HANA, SAP Enterprise Portal

Software: IBM® AIX®, IBM PowerHA® SystemMirror® for AIX, IBM PowerVM®, SUSE Linux Enterprise Server for SAP Applications

Hardware: IBM Power® System E880, IBM Power System E870

Services: IBM Business Partner SVA System Vertrieb Alexander (SVA)

Stefan Beer adds: "Our SAP Business Warehouse powered by SAP HANA is very deeply embedded in our global operational processes. This means that the performance and reliability of running SAP HANA on IBM Power Systems also has a positive impact on the customer experience and service quality."

Würth Group wants to leverage the next generation of the SAP HANA platform and accelerate its complex, compute-intensive data analytics. The group plans to implement integrated analytics tools and features that will fully exploit the SAP HANA in-memory architecture to increase staff productivity further.

In preparation for this next step, Würth Group is currently evaluating SAP CRM powered by SAP HANA, running on a single LPAR on IBM Power Systems. Stefan Beer comments: "As part of the digital transformation of our business processes, we are taking advantage of the high-performance IBM Power Systems platform to launch new SAP Fiori® apps to support sales staff with modern, mobile tools to streamline workflows, and provide a better overview of sales. Easy-to-use responsive, mobile applications will help our staff work more effectively – in the office on a PC, on the road with a smartphone, or in a customer meeting with a tablet."

Harald Holl comments: "With SAP HANA and IBM Power Systems we have the right technology to better serve our worldwide customers. Running on one platform, IBM Power Systems, for all our major SAP applications and databases, makes operations much easier. Consolidating our SAP solutions to the Power Systems platform helps our relatively small IT team to provide fast, reliable and uninterrupted IT services to thousands of users around the world. The single environment gives us the ability to accelerate deployments of new systems, and respond more rapidly to changing business requirements."

Stefan Beer says: "SAP HANA and IBM Power Systems are key to delivering our future business intelligence scenarios: big data analytics, artificial intelligence, and machine learning."

Harald Holl concludes: "The whole company benefits from speed. With SAP HANA and IBM Power Systems, we are now able to deliver new features more quickly, giving us a distinct competitive advantage and strengthening our position as market leader."

Learn more, connect with IBM 🐦 ▶️ **and SAP** 🐦 ▶️