



### Business challenge

Auto components suppliers work around-the-clock to meet product quality and delivery schedules. How could this leading manufacturer accelerate production and reliably fulfill its orders?

### Transformation

To drive its production and dispatch operations, the company decided to supercharge its core SAP ERP systems by moving to the SAP HANA® platform on IBM® Power Systems™ servers and IBM Storage.

#### Business benefits:

**77%**

cut in database size releases capacity for growth

**96%**

reduction in backup batch processing

**92%**

cut in disaster recovery time

## Auto parts manufacturer Accelerates just-in-time auto components manufacturing with IBM and SAP

This auto components manufacturer serves world-leading auto-makers with critical components, which it fabricates and delivers on a just-in-time basis.

*“With IBM Power Systems and IBM FlashSystem, we no longer need to worry about infrastructure failings causing disruption to our assembly lines.”*

Spokesperson

auto parts manufacturer

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## Meeting deadlines

This large auto parts manufacturer serves world-leading auto-makers with critical components, which it fabricates and delivers on a just-in-time basis. One of the driving forces behind the company's success is its ability to meet stringent time and product quality service-level agreements (SLAs), required by its global customers.

The just-in-time automotive manufacturing process means that the company must be primed and ready to build and deliver parts quickly and reliably. For example, in one of this company's divisions, goods are sometimes dispatched within just 40 minutes of the order. Each component must be accompanied by the correct invoice, quality, and inventory data, and without this essential information, the order could be rejected.

While the company could fulfill orders, the company found that the database and supporting system infrastructure that powered its mission-critical applications was no longer providing reliable service. These technical issues caused application slow-downs, leaving the company vulnerable to manufacturing and delivery delays that would impact customer service.

A spokesperson comments, "We knew that if we didn't address the issues in our IT environment, we might no longer be able to satisfy our clients' needs. For example, we rely on invoicing and inventory documentation in digital format, with only a QR code attached to the product that our customers scan as their goods-inwards receipt, which in turn generates our invoice. We would be unable to revert to paper-based processes if we ever encountered a significant system error, threatening our ability to secure payment."

The spokesperson continues, "Our customers use a green-yellow-red traffic light system to score our service, depending on quality of product, on-time delivery, and product documentation, among other things. If our rating slips below the highest levels, perhaps because our documentation is incomplete or delivery is delayed, it would affect our ability to win future business. How could we address these challenges cost-effectively, and ensure robust operations to serve current customers and win future clients?"

## Infrastructure tune-up

For many years, the company had relied on SAP ERP applications supported by a traditional relational database. The company decided that the strategic route was to move its SAP ERP applications to the [SAP HANA](#) data platform, which would preserve its business logic and processes while resolving its reliability and performance issues. The move to SAP ERP powered by SAP HANA would also lay the foundations for a planned future move to next-generation [SAP S/4HANA](#)® technologies.

To implement SAP HANA, the manufacturer considered its infrastructure options. The company was looking for a robust platform that would help meet demanding customer SLAs, and with the scalability to meet its projected growth for five years. Rather than select fixed-size appliance offerings, it chose highly flexible, scalable [IBM Power Systems S824](#) servers running [SUSE Linux Enterprise Server for SAP Applications](#), purchased through IBM Gold Business Partner [Tech9labs](#).

"The IBM Power Systems servers stood apart from other vendors' offerings and satisfied each of our key selection criteria," comments the spokesperson. "We were particularly impressed with IBM Power Systems S824 servers because they provide the reliability, scalability and high availability we require to support our mission-critical manufacturing applications, helping to keep our assembly line running like a well-oiled machine."

The spokesperson adds, "Knowing that running SAP ERP driven by SAP HANA on IBM Power Systems servers would deliver added performance improvements was also a key consideration in our decision to work with IBM and SAP on this project."

## Effective partnership

Working with [IBM Services](#), the company designed and configured its SAP HANA environment on two IBM Power Systems S824 servers. One server is architected for production workloads, while the second provides a fully duplicated failover environment.

In addition, IBM Services helped the company to build resilience by using **IBM PowerVM®** to create multiple, independent virtual machines for the SAP ERP and SAP HANA production, test, development and quality control instances. Each IBM PowerVM virtual machine is optimized for the specific workload it contains, helping to deliver cost-effective resource utilization.

By deploying IBM PowerVM virtual machines on the IBM Power Systems platform, the company also gains flexible scalability to manage future growth. The company can invest in server memory and processor capacity that can be allocated to specific virtual machines to meet additional workloads, enabling a smooth, non-disruptive growth path.

The spokesperson remarks, “IBM Services helped us to achieve fast, effective implementation, and demonstrated that they truly understood our business at every level. IBM went the extra mile to help us establish the optimum configuration for our SAP HANA environment.”

The spokesperson continues, “Thanks to the IBM Services team’s intelligent system infrastructure design, we have gained sufficient additional capacity to scale and develop our systems in the future. This capability will prove vital as we plan to move to SAP S/4HANA and explore the possibility of rolling out mobile technology and automation to streamline shop-floor processes.”



## Preparing for growth

As the company grew, and with increasing demand for products to be accompanied by digital quality, delivery and inventory information, it identified significant data storage requirements. The traditional relational database had grown to more than 1.4 TB, and significant predicted growth would require additional capacity.

To ensure the new SAP HANA platform performed optimally, and to address its storage growth challenges, the company chose to deploy **IBM FlashSystem®** storage. This flexible, high-performance storage array offers embedded **IBM Spectrum® Virtualize** software, with advanced data compression techniques that maximize available storage.

The combination of moving to SAP HANA and deploying IBM FlashSystem storage enabled the manufacturer to cut the size of its database to 320 GB, a 77 percent cut, releasing additional storage capacity as the company continues to expand its operations.

The spokesperson adds, “We’ve also seen dramatic performance improvements for our backup and disaster recovery processes since evolving our IT infrastructure to SAP HANA and IBM Power Systems and IBM FlashSystem storage. For instance, we have reduced the time taken to back up our systems from 22 hours to just 40 minutes, an outstanding 96 percent improvement. At the same time, we’ve also cut the time taken to recover our systems from 36 hours to 1 hour and 20 minutes, a 92 percent enhancement that significantly reduces business risk.”

The spokesperson continues, “In the past, running backup processes significantly affected the response times of our production SAP ERP systems, whereas with IBM Power Systems we can complete backup processes even as we continue to operate. This enables us to run our backups more frequently, and combined with the reduced recovery times, the IBM solution has significantly strengthened our business continuity. Even if we were to experience downtime, we could quickly recover our systems and the manufacturing operations they support, helping us to avoid delays and keep our assembly line running smoothly.”

# Manufacturing success

Since moving to SAP ERP powered by SAP HANA running on IBM Power Systems, the company has greatly improved system reliability, performance, scalability and availability. These advantages have empowered the company to deliver high quality auto parts on time and with the correct supporting documentation.

The spokesperson explains, “With IBM Power Systems and IBM FlashSystem, we no longer need to worry about infrastructure failings causing disruption to our assembly lines. In turn, this means that we are much better placed to ensure that we can meet the strict just-in-time delivery deadlines for products and accompanying invoice and inventory documentation. The business benefit is that we have improved the prospects of securing repeat business and recommendations for new business.”

The next step will be to deploy SAP S/4HANA, which will enable the company to introduce shop-floor automation and real-time data capabilities. The aim is to use [SAP Fiori®](#) to enable supervisors to capture manufacturing data with mobile devices, immediately integrated with the core business management solutions.

This ability will offer near-instant production metrics, such as goods produced, percentage quality achievements and materials utilization, to help tune up efficiency and optimize operational excellence.

“IBM Power Systems and IBM FlashSystem have opened a whole new world of possibilities for continuous development,” says the spokesperson. “In the coming year, we hope to enable our assembly line workers to input inventory data on the go, which will help managers to track inventory in real time and maximize efficiency.”

The spokesperson concludes, “One of the biggest benefits is that the IT team can sleep at night! We’re excited to continue our development journey with IBM and SAP, and look forward to further enhancing our core manufacturing systems and processes to provide even faster, higher quality and more efficient products and services for our clients.”

## Solution components

- IBM® FlashSystem®
- IBM PowerVM®
- IBM Power Systems™ S824
- IBM Services™
- IBM Spectrum® Virtualize
- SAP® ERP
- SAP HANA®
- SUSE Linux Enterprise Server for SAP Applications
- Tech9labs

## Take the next step

To learn more about SAP HANA on IBM Power Systems, please contact your IBM representative or IBM Business Partner, or visit: [ibm.com/it-infrastructure/power/sap-hana](http://ibm.com/it-infrastructure/power/sap-hana)

To learn more about IBM FlashSystem solutions, please contact your IBM representative or IBM Business Partner, or visit: [ibm.com/it-infrastructure/storage/flash](http://ibm.com/it-infrastructure/storage/flash)

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