



Gabriel India Ltd builds a single platform for group-wide ERP with IBM and SAP

Gabriel India Ltd is the flagship company of the Anand Group, which is among India's leading automotive component companies. The group consists of 19 companies that manufacture original equipment and components for the automotive industry both within India and internationally.

Gabriel India specializes in ride control products (shock-absorbers, front forks and struts), which it supplies directly to major car, motorcycle and heavy goods vehicle manufacturers, and also sells through agents and distributors as aftermarket products.

Founded in 1961, the company has its headquarters and main plant in Pune and operates at five other manufacturing sites in Nashik, Dewas, Hosur, Khandsa and Parwanoo. It employs around 2,900 people, produces 20 million units per year, and generates annual revenues of approximately 7 billion Indian Rupees.

Corporate growth

"The company is growing rapidly, especially as we increase our profile in the original equipment manufacturing (OEM) business," explains Edwin Joseph, Head of IT at Gabriel India. "The Parwanoo plant was opened in 2007, and the Khandsa plant in 2008 – and we are already planning to build additional facilities in northern India. From an IT perspective, this rapid expansion created challenges: we needed to create an IT infrastructure that could grow at the same rate as the business."

Gabriel India had already implemented an ERP solution – SAP Business One – to manage the financial aspects and distribution network of its aftermarket business at individual factories. However, customers of its OEM business placed greater emphasis on production control, and the company wanted to introduce a solution that would help to manage its shop floor processes more efficiently across all its plants.

Overview

Challenge

Gabriel India Ltd operates six main manufacturing sites across the country, and plans to open additional plants in northern India.

Solution

The company upgraded from its existing SAP Business One solution to SAP ERP 6.0, and migrated from HP hardware and Microsoft SQL Server to a fully IBM solution: an IBM DB2 database running on two IBM Power 520 servers and supported by an IBM System Storage DS5020 disk system.

Key benefits

Created a common platform for managing all major corporate processes from procurement through to distribution. For the first time, production processes at all six manufacturing sites will be controlled by a single central system, boosting efficiencies and making better use of resources.

Business Challenge

Gabriel India Ltd operates six main manufacturing sites across the country, and plans to open additional plants in northern India.

To streamline operations and support growth, the company wanted to move to a single central enterprise resource planning (ERP) solution that would support manufacturing processes as well as finance and distribution.

Moving to an enterprise-class platform

“We liked the SAP Business One solution, but it is primarily designed for small to mid-sized businesses, and we needed an enterprise-level solution,” says Joseph. “Upgrading to SAP ERP 6.0 was the obvious choice, because it has strong capabilities in terms of production planning and materials management, and we realized we could use it to streamline processes and boost efficiencies by uniting all of our plants into a single solution.”

To support the move to a single SAP ERP instance for all its production facilities, Gabriel India needed to rethink its infrastructure. Its existing architecture – Intel processor-based HP Proliant machines running Microsoft Windows Server and Microsoft SQL Server 2005 databases – was struggling to deliver adequate performance even for SAP Business One, and the predicted resource requirements for SAP ERP were far higher.

Choosing a new infrastructure

“Our biggest concern was the performance of the database platform, so we began looking for alternatives,” explains Joseph. “We looked at Oracle and IBM DB2, but Oracle wanted us to use their business applications

“We asked SAP for advice, they recommended DB2: it is their preferred database, and they work closely with IBM to optimize performance and reliability via a strategic roadmap for synchronized development. In fact, the close alliance between IBM and SAP is a major advantage in all respects, because it ensures good technical support and a stable platform for the future.”

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Running IBM DB2 on IBM AIX enables features such as Deep Compression, which allows companies to reduce data storage requirements by up to 70 percent while also boosting database performance. This is particularly valuable in database-intensive environments such as SAP ERP, where improved database throughput can have a significant effect on overall response times.

Another advantage of using DB2 with SAP is the DBA Cockpit, which enables IT staff to manage the DB2 environment from within the SAP interface, making it easier to integrate administration tasks and save time. The Gabriel India team calculated that it could reduce database administration workload considerably by moving from local Microsoft SQL Server instances to a centralized DB2 solution, since a single IT team at the main site will be able to manage the entire environment.

“We also investigated what other Indian companies are doing in their SAP environments, and we found that running SAP with DB2 on IBM

AIX and IBM Power servers was a popular option,” says Joseph. “This combination had a very good reputation, and we visited a number of reference customers such as SKH Metals and Mahindra & Mahindra to see how it worked in real-world environments. We were impressed with what we saw.

“Moreover, we appreciated the efforts made by the IBM presales and technical teams, who took time to explain the advantages of IBM Power features such as virtualization and show us how we could improve efficiencies and reduce IT management workload.”

Working with KPMG, the company evaluated the IBM Power servers against an HP alternative, and found that the results confirmed its positive impression of the hardware. The IT team decided to go ahead with the implementation, and set up a project steering committee that included members from SAP India and IBM India.

Efficient implementation

The combined project team from IBM Global Technology Services and Gabriel India then installed the new infrastructure at the company’s main data center in Pune, set up the virtualization and connected the storage. The initial implementation

GABRIEL

Solution

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The company also upgraded its network infrastructure, providing faster access to SAP applications for users across the country.

Key Solution Components

Industry

Industrial products

Applications

SAP® ERP 6.0, SAP Document Management System, SAP NetWeaver® Business Warehouse, SAP BusinessObjects

Hardware

IBM® Power® 520 servers, IBM System x3550 M2 servers with two dual-core 1.86 GHz Intel® Xeon® E5502 processors, IBM System Storage® DS5020 disk storage and IBM TS3100 tape library, CISCO 24-port SAN switches

Software

IBM AIX®, IBM DB2®

Services

IBM Global Technology Services

was completed on schedule, and IBM Global Technology Services will continue to work with Gabriel India as the solution is rolled out across the company's plants.

The full set-up included three IBM Power 520 servers, each with two quad-core 4.7 GHz IBM POWER6 processors, that would run the SAP ERP, SAP NetWeaver Business Warehouse and IBM DB2 environments. "The IBM Power servers provide excellent performance, and the virtualization capabilities are very impressive," says Joseph.

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[LPARs], we can adjust the allocation of processing and memory resources in real time. Within these boundaries, the systems autonomously manage resources in sub-second dynamics, which ensures that each server handles its aggregate workload with maximum efficiency and optimal overall system utilization.”

In addition, three IBM System x3550 servers with Intel Xeon processors would run production and

development environments for an SAP BusinessObjects solution.

“When we have been running the main SAP ERP environment for a year or so, we expect SAP BusinessObjects to become a very useful tool for analyzing current and historical data and identifying trends,” says Joseph. “As demand for business intelligence increases, the flexibility and performance of the IBM System x servers will become more and more valuable.”

From the storage perspective, the team implemented an IBM System Storage DS5020 disk system, and a TS3100 tape library – providing high-performance storage and offline backup capabilities for 6 TB of business data. To improve I/O throughput and boost performance for users across India, the network was also upgraded with two 24-port CISCO SAN switches, raising the total bandwidth to 8 Gbps.

Enhancing performance

“With a central data center, one of the key challenges is to be able to support users who are working at plants that may be 1,500 km away,” says Joseph.

“Our tests have shown that this new infrastructure delivers very good

Business Benefits

- **Near 100 percent uptime for core business applications on the IBM Power 750 server**
 - **Reduced administration workload that saves one full-time employee equivalent**
 - **Saved around 50 percent of predicted capital expenditure thanks to virtualized servers for key SAP production and other applications**
 - **Increased user productivity through automated data backup across around 30 servers**
 - **Savings of more than 60 percent of tape capacity thanks to advanced data compression**
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performance for remote users, even on a laptop over a wireless connection!" The new architecture delivers response times of less than 400 ms for session opening, which is an improvement on the 1,000 ms response times in the existing HP and Microsoft SQL Server environment.

A platform for the future

With the hardware in place, Gabriel India began the SAP ERP implementation. The new solution is already live at its plant in Pune, and will be rolled out to the remaining plants over the next six to nine months. During this time, the company will also switch its aftermarket business over from SAP Business One to SAP ERP.

"At the moment, we have purchased licenses for 150 SAP users, but we expect this number to increase, especially if we open the new plants in the north of the country," says Joseph. "For this reason, we have sized the hardware to support 300 users, which will give us flexibility as the business grows over the next few years."

He concludes: "We are confident that the IBM infrastructure we have chosen has been optimized to deliver excellent performance for our new SAP ERP environment. We are already noticing

an improvement in performance, even though the new applications are more resource-intensive than our previous systems. We have also been impressed with the support and training provided by IBM India – we have had no hardware or support problems in the year since the initial implementation, and our system administrators are now able to handle the day-to-day management of the AIX and DB2 environments without external support."



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