Express Computer : Gabriel India deploys ERP on an all IBM platform

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 wholly IBM solution. By Rajendra Chaudhary

Pune-based Gabriel India Ltd specializes in ride control technologies but its expertise in manufacturing shock-absorbers didn't quite help prevent its ERP and the base infrastructure that it ran on from experiencing uncomfortable performance bumps.

The flagship of the Anand Group, an automotive component company, Gabriel India manufactures ride control products including shock-absorbers, front forks and struts, which lend vehicles greater stability and better road handling capabilities. Established way back in 1961, the company enjoys a strong presence in not only the domestic market but across international markets as well.

Up until recently, the company ran SAP Business One. Deployed in 2006, the ERP system was deployed to manage the financial aspects and distribution network of Gabriel India's aftermarket business at individual factories located in various parts of the country. Although, initially, the package seemed to suffice for the company's needs, as it increased its profile in the original equipment manufacturing (OEM) space and stepped up its expansion efforts, the solution began showing signs of fatigue.

According to Edwin Joseph, Head of IT at Gabriel India, the company's customers for its OEM business placed a greater emphasis on production control, and the rapid expansion plan of the company was “a bit too much” for the ERP to handle. “We needed to upgrade our ERP system. There were several things missing including an MRP module, strong production planning and materials management capabilities. There were multiple instances of the solution being run at different sites, which led to administrative and reporting bottlenecks. The scalability of the solution was proving to be a pain point. Therefore, we wanted to introduce a solution that could help us manage our overall processes more efficiently across locations.”

In a bid to address these challenges, a mere three years after deploying SAP Business One, the company embarked upon yet another ERP project in July 2009. Only this time it was going to deploy SAP ERP 6.0.

To support the move to a single SAP ERP instance for all of its production facilities, the manufacturer needed to rethink its infrastructure since its existing architecture that consisted of Intel-based HP ProLiant machines running Microsoft Windows Server and SQL Server 2005 databases was struggling to deliver adequate performance even for SAP Business One.

Evaluation Process

One of the biggest concerns that Joseph had, on the supporting infrastructure front, was in terms of the performance of the database platform. He wanted to do away with the SQL Server environment and bring in a platform that could adequately support heavier workloads. “We looked at both Oracle and IBM DB2, but since Oracle wanted us to use its business applications along with its database and we were keen to stay with SAP, we chose to go with IBM DB2. Besides, SAP recommended DB2 as its preferred database,” he said.

During the evaluation process, Joseph found that running DB2 on AIX enabled features such as Deep Compression, which allowed users to reduce data storage requirements by up to 70% while also boosting database performance. This was valuable in database-intensive environments such as SAP ERP, where improved database throughput could have a significant effect on overall response times.

Another advantage of using DB2 with SAP was the DBA Cockpit, which enabled 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 would be able to manage the entire environment.

Just to be absolutely sure, Joseph & Co. also looked at some other companies running SAP in their environments. Joseph was both relived and pleased to learn that running SAP with DB2 on AIX and Power servers was a popular option. This alleviated all of his doubts and he decided in favor of an all IBM platform for infrastructure below the ERP system.

A combined project team from IBM Global Technology Services and Gabriel India carefully mapped the infrastructural requirements of the project and decided that the set-up would consist of three IBM Power 520 servers, each with two quad-core 4.7 GHz IBM POWER6 processors, that would run the ERP, NetWeaver Business Warehouse and DB2 environments. For storage, the team settled on an IBM System Storage DS5020 disk system, and a TS3100 tape library.

The team installed the new infrastructure at the company’s main data center in Pune and the first site went live with the new ERP system in July 2010.

Performance gains

Although the ERP system roll out hasn't been completed and it is, in fact, yet to go live at the majority of Gabriel India's locations, Joseph said that, looking back, opting for the IBM platform was perhaps the best decision that he took during the entire exercise. Citing some of the benefits he had seen so far, he said, “By running the SAP applications and databases in dynamic logical partitions [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."

“With a central data center, one of the key challenges is to be able to support remote users working at plants that could be as far away as 1,500 km. Our tests have shown that this new infrastructure delivers very good performance for remote users, even on a laptop over a wireless connection,” he added. Apparently, the new architecture delivered response times of less than 400 ms for opening a session, which was an improvement on the 1,000 ms response times in the previous HP and Microsoft SQL Server environment.

When asked about comparative performance gains, Joseph said that although it was not fair to compare the performance of the earlier HP and Microsoft SQL Sever environment with the new IBM infrastructure since the applications that ran on the former differed greatly from the ones being run currently on the IBM platform, he was confident that the IBM infrastructure was optimized to deliver excellent performance.

“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,” Joseph concluded.