



Avon Cycles Ltd. improves supplier management with SAP HANA

HPE AppSystems for SAP HANA provide highly available, high performance solution

Objective

Replace Oracle database system with SAP HANA to handle complicated resource planning in real-time and improve performance of business processes

Approach

Reviewed proposals from IBM, HPE, Dell and Fujitsu, received input from SAP on the proposed solutions

IT Matters

- Cut time to produce MRP reports by more than 90 per cent, from one to two hours to only eleven minutes, enabling reports to be run several times within a day rather than overnight
- Accelerated production of other reports from typically 15 minutes to 5 seconds, an improvement of 99 per cent

Business Matters

- Reduced the number of trucks having to wait at the factory by more than 50 per cent, from three or four each day to only one or two
- Saved money by cutting shipping delays caused by missing components
- Improved competitiveness by minimising the impact on dealers of hold-ups in dispatch
- Increased productivity of end-users as they no longer have to wait for reports



Indian bicycle manufacturer Avon Cycles Ltd. chose HPE systems to run its SAP HANA in-memory database, which has accelerated the production of reports by up to 90 per cent. This has enabled it to improve supply chain management, increase staff productivity and save money.

Challenge

Complicated supply chain

If you think about Avon Cycles, you need to think big. The company's bicycle manufacturing facility is spread over an area of 145,000 square metres, and each year it produces two million cycles. Its products are exported to 85 countries, and in India it has a network of 1,500 authorised dealers.

The company uses the most modern plants and machinery systems, and its product range includes 250 different models of bicycle, which on average are each available in four sizes and three or four colours. Each bicycle has around 350 components, and there are new models added every month.

"Our inventory has an enormous number of permutations," says Kuljeet Sethi, CIO at Avon Cycles. "We buy a huge range of components, mostly from local vendors, so Material Resource Planning (MRP) is critical to our business."

“With the Oracle database, producing the Material Resource Planning reports took one-and-a-half to two hours, so we had to do it overnight – the system didn’t enable me to run it again during the day. Now, with the AppSystem for SAP HANA, it takes an average of only 10 to 15 minutes to run the MRP, so I can do this two or three times within a day.”

— Kuljeet Sethi, CIO, Avon Cycles Ltd.

Avon uses SAP for its Enterprise Resource Planning system. It had previously used Oracle as a database, but when it moved to SAP it decided the time was right to use SAP HANA to provide analytics and transactions in a single in-memory platform.

“We shifted to SAP HANA because we saw it as a new and promising technology, and we were impressed by the HANA offering,” says Subhendra Jha, IT manager. “Also, the total cost of ownership of Oracle was becoming higher, with a three per cent year on year increase in support charges.”

Solution

Highly available configuration

Avon’s SAP system was implemented on IBM infrastructure, and its previous Oracle database was running on IBM servers. Notwithstanding this, when it moved to SAP HANA, Avon decided to review other vendors and see if IBM was the best choice. After reviewing proposals from Dell, Fujitsu, IBM and HPE, Avon chose a solution based on HPE SAP HANA appliances.

“We shortlisted HPE and IBM, because Dell and Fujitsu only had a limited presence in Punjab,” says Sethi. “The two main reasons we chose HPE over IBM were: firstly, HPE was more flexible than IBM when it came to our requirements and terms; and secondly we believed that HPE was more knowledgeable technically about SAP HANA – which was important because we were the first company in Asia Pacific to place an order for SAP HANA.”

“Another factor was high availability, which we needed from day one,” says Sethi. “HPE was the only vendor who could show us a proposal, and SAP confirmed it was technically correct.”

The HPE solution consists of three small HPE AppSystems for SAP HANA, each configured with 256GB memory. One system is used for development and quality, and the other two servers are clustered and used for live production in a hot standby redundancy configuration. If either of these two systems fail, the other is identically configured, and can take over without any break in availability. Avon is also using other HPE servers for its data warehouse.

HPE set up synchronous real-time data replication between the production and standby nodes, which ensures high availability. The replication means there is continuous updating of the secondary system by the primary system, including in-memory table loading.

With its partner vCentric, HP carried out the implementation and data migration from Oracle. The migration was done in stages, Avon first had to update its SAP system to version 6.7, then the database was migrated from Oracle to SAP HANA in a sandbox, and finally the sandbox was made available to users. Sethi says, “The migration was smooth and well-planned – we were able to do it all in one run.”



HPE also provided Fast Start Services that provided connectivity of the SAP HANA appliance in the solution, by connection to the selected source system and front-end. It provided software upgrades to the latest HANA application software patch, and delivered a knowledge transfer session to Avon on system configuration, modelling and user management.

Benefit

Improved supplier and dispatch management

According to Sethi, the biggest benefit of the new SAP HANA system is its speed. Its most important role is to handle MRP, which enables Avon to manage the thousands of different components it needs for the huge variety of different bicycles it produces.

“With the Oracle database, we had to produce the MRP reports overnight – the system didn’t enable me to run it again during the day,” explains Sethi. “Now, the SAP HANA system takes an average of only 11 minutes to run the MRP, so I can do this two or three times within a day.”

This dramatic speed increase of more than 90 per cent has helped Avon improve how it manages its supply chain. Sethi says, “the turnaround time has improved because I have more confidence to chase up vendors and get components delivered on time – a lot of our suppliers are small, and I need to follow up with them every two or three hours. The MRP gives me the list of missing parts I need to enable me to do this.”

If components are missing at the factory, this holds up production of bicycles, and means they cannot be despatched to Avon’s dealers across India. This means that the trucks used for shipping have to wait, with a typical delay anywhere between 2 and 12 hours.

“We despatch eight to ten trucks per day. With the Oracle system, every day there used to be at least three or four trucks that had to wait due to missing components,” says Sethi. “Now, we have just one or two trucks waiting each day – there’s been a 50 to 60 per cent reduction in despatching delays due to SAP HANA and the HPE system.”

Customer at a glance

Application

- SAP ERP system
- SAP HANA database

Hardware

- HPE AppSystems for SAP HANA small node appliance with 256GB memory

HPE services

- Implementation and data migration
- Production system replication
- Transformation Services for SAP HANA
 - Business Suite on SAP HANA
 - FastStart Services

“There’s been a 50 to 60 per cent reduction in dispatching delays due to SAP HANA and the Hewlett Packard Enterprise system. With fewer trucks delayed, we save money.”

— Subhendra Jha, IT manager, Avon Cycles Ltd.

“With fewer trucks delayed, we save money as we’re not paying them to wait,” says Sethi. “Also, if a dealer doesn’t receive a delivery of our bicycles on time they are more likely to sell a competitor product, so the reduction in delays is helping increase sales.”

In addition to the MRP, Avon also uses its SAP HANA system to run around 30 different reports. The new system has substantially accelerated these reports, as Sethi comments, “There are reports which used to take 15 minutes which now only take 5 seconds to produce – which has increased the productivity of our users, as they don’t have to wait.”

Reliable with good support

The SAP HANA solution is mission-critical, and any outages means that despatch has to stop and no trucks can be sent out. In the first three months the system has been live, Avon has had almost no downtime in the system. Jha comments, “The database went down once, and HPE and its partner, vCentric, resolved the problem and got it running again within an hour.”

“HPE provides hardware support, and support for SAP HANA is provided by vCentric,” says Sethi. “They both do a good job, and we’re satisfied with the service we receive.”

For the future, Sethi is looking to remove the data warehouse layer to simplify the database systems. While the MRP is using real-time data directly from SAP, some other reports are currently based on information in the data warehouse, which is typically up to one day out of date. By removing this layer, the system will provide real-time data with no delay for all of the reports produced.

“Overall, the project has been a complete success,” concludes Sethi. “I would recommend HPE for this kind of SAP HANA solution.”

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