Audio equipment manufacturer Peavey Electronics needed faster performance from its analytics solution, as well as mobile reporting access for remote users. The company upgraded its analytical platform to SAP BusinessObjects and its reporting database to SAP HANA, running on a high performance NEC appliance and Red Hat Enterprise Linux for SAP HANA. Benefits include dramatically faster query response times, expanded reporting capabilities to mobile users, high availability, and increased productivity and employee morale, all at lower capital costs.

"With our old business intelligence system it could take 15 minutes or more to get a report. We have people who rely on data and business analytics to run the company, so they had to take hours out of their days to create and link reports. We needed to cut that down to minutes."

ROBERT MUIRHEAD
MANAGER OF ERP APPLICATIONS, PEAVEY ELECTRONICS
MUSICAL VISIONARY IN NEED OF SHARPER BUSINESS INTELLIGENCE

Peavey runs its business on SAP software, and the reports produced by its enterprise resource planning (ERP) applications team are essential management tools for personnel throughout the organization. But as requests piled up for more new reports and access from a wider range of mobile devices, the ERP team discovered the limits of its existing business intelligence tools.

“Our SAP environment, running on IBM DB2, did not support current web browsers, so a lot of our sales reps couldn’t use the reporting we were doing for them,” said Robert Muirhead, manager of ERP applications. “It worked fine on a notebook or a Windows mobile device, but not on an iOS or Android device.”

Processing performance was also a constraint. “Some of our reports have thousands of lines of output. With our old business intelligence system, it could take 15 minutes or more to get a report,” said Muirhead. “We have people who rely on data and business analytics to run the company, so they had to take hours out of their days to create and link reports. We needed to cut that down to minutes.”

Poor performance on the reporting platform forced the ERP team to ration access and deny some potentially useful requests. “We had to decide if we wanted to replace SAP reporting with a different package or stay with SAP and take it to the next level,” said Muirhead.

BUSINESS INTELLIGENCE FOR THE WHOLE BUSINESS

Muirhead suspected that an upgrade to SAP BusinessObjects, SAP’s business intelligence solution, could solve his mobile access challenges. To confirm that, and to help determine what else might be required to solve his performance problems, he consulted 3V Solutions, Peavey’s longtime SAP reseller-integrator partner.

3V recommended pairing SAP BusinessObjects with SAP HANA, an in-memory database platform designed to handle both high transaction rates and complex query processing. To run SAP HANA, it recommended a purpose-built NEC appliance. Based on the NEC Express5800 enterprise server, the appliance features a massive resource pool, with up to four Intel Xeon E7 v2 processors with up to 60 cores and up to 4 TB of memory, to support compute and memory-intensive applications. To optimize the server platform’s high-availability features, 3V also recommended a complementary operating system.

This led 3V to Red Hat Enterprise Linux for SAP HANA, the result of a collaborative engineering relationship between Red Hat and SAP. It combines the reliability, scalability, and performance of the world’s leading enterprise Linux platform with technologies optimized to meet the specific requirements of SAP HANA. These include a series of high-availability features that take advantage of Intel Machine Check Architecture to mitigate hardware-level errors on application performance and stability. Two of these features, predictive failure analysis and resource de-allocation for both CPU and memory, are unique to this solution.

Muirhead elected to deploy the combined SAP, NEC, Red Hat solution using installation and integration services from 3V Solutions.
“Red Hat Enterprise Linux for SAP HANA is going to open up the reporting on SAP. We'll be able to tell people, ‘Yes, we can build that report for you,’ rather than, ‘No, that will shut our system down.’ It’s positive for IT, and it’s positive for the business.”

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**BENEFITS OF BETTER INTELLIGENCE**

**CRITICAL TECHNICAL, OPERATIONAL, AND BUSINESS BENEFITS WERE ACHIEVED.**

With the combined high-availability features of the NEC SAP HANA appliance, 3V Solutions architects had the confidence to recommend a single-node server platform rather than a two-node failover cluster. The hardware savings reduced Peavey’s capital costs by about US$100,000. The recommendation was made with careful consideration.

“This is a very conservative customer,” said Mark Dendinger, a principal at 3V Solutions. “They are a long-term customer of ours, so we did not want any hiccups, restarts, or failures. We needed a very reliable product, and that’s why we recommended Red Hat Enterprise Linux for SAP HANA for this application.”

**IMPROVED PROCESSING PERFORMANCE**

“An employee who is running reports can now look at open orders in just a few seconds,” said Muirhead. “An inquiry like that probably involves a hundred thousand lines of data, and this system is delivering an output that quickly before we’ve rewritten anything. I have no doubt that when we have all the systems completely tied together, we are going to see some blazing speed.”

**MORE INSIGHT FOR MORE USERS**

The new business intelligence platform will open up reporting access to mobile device users, and it will eliminate the processing constraints that have limited the ERP team’s ability to deliver new business analytics.

“We’re going to build some really nice dashboards for our executive management. They’ll be able see how everything sits without digging through spreadsheets or typing reports,” said Muirhead. “Red Hat Enterprise Linux for SAP HANA is going to open up the reporting on SAP. We’ll be able to tell people, ‘Yes, we can build that report for you,’ rather than, ‘No, that will shut our system down.’ It’s positive for IT, and it’s positive for the business. We’re going to give them more flexibility and more reporting than they’ve ever seen.”

**VIEW INTO THE FUTURE**

Muirhead hopes the new business intelligence platform will eventually give Peavey managers a clearer view of the future. “The guy I have working on the project is really into data mining and predictive analysis. I would love to apply some of those techniques to our business. Perhaps we could see that sales are going to pick up on a product and that we need to increase inventory. I’d love to see that on the top of a dashboard.”

He also hopes the new business intelligence system may eventually provide the nucleus of a disaster recovery facility. “We have one datacenter here in Meridian, Mississippi. If we have a major power outage or a hurricane comes through, people in the rest of the country can’t connect to us. I’d love to have an off-site hosted system just for disaster recovery. We could have 24x7 availability for all our reps, even with a major power outage.”
ABOUT PEAVEY ELECTRONICS

For 50 years, Peavey Electronics has pioneered an uncompromising and individualistic path toward musical perfection. Hartley Peavey founded the company in 1965, and he remains the visionary chief executive of what is now a world-leading builder of musical instruments, amplifiers, and professional audio systems. From its headquarters in Meridian, MS, Peavey distributes more than 2,000 products in 130 countries. The company holds more than 180 patents, and its innovations have changed the ways we hear and play music. After five decades, the founder’s principles of quality, reliability, and innovation still focus a musical enterprise that spans continents and languages, customs and cultures.

ABOUT SAP

As market leader in enterprise application software, SAP (NYSE: SAP) helps companies of all sizes and industries run better. From back office to boardroom, warehouse to storefront, desktop to mobile device - SAP empowers people and organizations to work together more efficiently and use business insight more effectively to stay ahead of the competition. SAP applications and services enable more than 291,000 customers to operate profitably, adapt continuously, and grow sustainably. For more information, visit www.sap.com.

ABOUT NEC CORPORATION OF AMERICA

NEC Corporation of America (NEC) is a leading technology integrator providing solutions that improve the way people work and communicate. NEC delivers integrated Solutions for Society that are aligned with our customers’ priorities to create new value for people, businesses and society, with a special focus on safety, security and efficiency. We deliver one of the industry’s strongest and most innovative portfolios of communications, analytics, security, biometrics and technology solutions that unleash customers’ productivity potential. Through these solutions, NEC combines its best-in-class solutions and technology, and leverages a robust partner ecosystem to solve today’s most complex business problems. NEC Corporation of America is a wholly-owned subsidiary of NEC Corporation, a global technology leader with a presence in 140 countries and $29.5 billion in revenues. For more information, please visit www.necam.com.

ABOUT RED HAT

Red Hat is the world’s leading provider of open source solutions, using a community-powered approach to provide reliable and high-performing cloud, virtualization, storage, Linux, and middleware technologies. Red Hat also offers award-winning support, training, and consulting services. Red Hat is an S&P company with more than 80 offices spanning the globe, empowering its customers’ businesses.

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