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Within the HP community, IT decision-makers face many critical technology issues. For Lexington, S.C.-based multi-million dollar carrier company, Southeastern Freight Lines (SEFL), modernizing the assets in its OpenVMS system using host integration software turned an IT challenge into a unique business opportunity.

To power its IT infrastructure, SEFL built a portal to improve the management of its high-volume, transaction-based shipping operations. However, the majority of its critical claims, billing and shipping trip information was locked away on their OpenVMS data system. SEFL needed to retain use of these critical OpenVMS applications but also provide transparent Web access to the data via the portal.

Host integration software helps companies like SEFL integrate their mission-critical host applications and data sources into modern applications such as portals, web services and other web-based applications,

SEFL relies on OpenVMS to provide stability and security and ensure zero downtime to run its operations. It has been using OpenVMS for more than 20 years to support mission critical business processes and house the majority of its vital corporate assets. These legacy applications are complex – both for users and developers. Therefore, taking the time and expense to re-engineer them is not always an option. What was once cutting edge technology had become a critical legacy asset, and SEFL had to decide how to retain the decades of critical business data residing there.

SEFL, which specializes in hauling carpet and carpet-related products through its fleet of about 2,600 tractors and 7,500 trailers, makes 25,000 shipments daily. Each stop along the way is recorded electronically, resulting in millions of transactions to track the cost and efficiency of the SEFL shipping systems. To do this, SEFL uses what is perhaps the company's most critical application, All-IN-1, a mainframe email and POP system. SEFL relies on this OpenVMS character-based application for tracking billing, claims and trip tickets – an integral part of its business. Because ALL-IN-1 will not be ported to a modern-day computer platform, SEFL had to find an appropriate solution to reuse the data and logic in a web environment that users and developers were more familiar with. While the team quickly selected products like Microsoft Exchange to automate the company's email needs, the integration of the rest of the company's decades worth of business logic – 1,600 ALL-IN-1 programs running on Cobol – proved to be more difficult.

Dave Robinson, vice president for MIS, and his team discussed creating a graphical user interface (GUI) that would modernize these thousands of programs and make them web-accessible, instead of accessible only from the mainframe. This would rapidly address new business initiatives, while reducing costs. The browser-based application would be presented on screens in a GUI format and that information would be sent to the OpenVMS system in the form of business logic that the new system could read. To keep all of its business files the same without undergoing a major conversion, SEFL had to find a product that would allow it to program all of this data in an OpenVMS environment.

"OpenVMS is a scalable, dependable operating system that we really love," Robinson said. "We did not want to take our business off OpenVMS, but we also did not want to lose all of the data that's key to our business."

With millions of dollars invested in OpenVMS, including 40 MIS employees who are experts in the operating system, Robinson could not afford to eliminate these assets. He looked for solutions that would allow SEFL to get more out of its existing OpenVMS investment in people, process and technology. In IT, where budgets and headcount determine the company's ability to meet increasing demands put on them to become more agile, decreasing the project timeline, reacting quickly to changing business requirements, and ultimately creating an IT environment that is flexible enough to be proactive were essential.

Therefore, he sought a solution that would modernize the company's existing legacy assets residing on OpenVMS; support the organization's file structure; and address the organization's integration, migration and web access needs. He knew going into the project that only a handful of products

would address both business and IT needs and extend his current investment in OpenVMS legacy assets. He evaluated three, including WRQ Verastream host integration server. A big believer in prototypes, Robinson spent six weeks evaluating one product option and then evaluated the WRQ solution, which successfully built a prototype in only a week.

"We had numerous and complex demands, ranging from very high performance requirements to the fundamental need to retain our OpenVMS-based system. Any amount of downtime is unacceptable, which is why we run OpenVMS in the first place. We needed a vendor that would stand behind their software, uptime and scalability," Robinson said. "WRQ demonstrated, met, and exceeded all of our requirements."

With WRQ's host integration solution, SEFL was able to modernize its infrastructure and applications, while maximizing the value of its OpenVMS system.

As a result of using WRQ Verastream, SEFL would web-enable and integrate all of the company's mission-critical business operations in only a matter of months instead of years – completely replacing the All-IN-1 system.

WRQ first tackled the need to provide web access and automate SEFL's most important application: an OpenVMS character-based application used for billing, claims and trip tickets. WRQ completed a custom configuration and deployment of WRQ Reflection for the Web terminal emulation in less than eight weeks to handle this requirement. Now, SEFL's 6,000 employees and all of its customers have transparent access to OpenVMS applications, while automatically selecting and loading appropriate documents from multiple business systems.

WRQ experts then proceeded with SEFL's portal development, using WRQ Verastream at the backend. Through the use of auto-generated customizable portlets, Verastream allows SEFL users to go to a centralized, web-based location for fast and easy access to legacy application information. Because WRQ Verastream has the ability to integrate interchangeable components, WRQ developed the portal without replicating data or rewriting code from the underlying OpenVMS system. All data – old and new – would reside in the new system WRQ created.

Converting its external web development from an ASP to a Java environment using Verastream meant that SEFL's Cobol developers had to learn Java, a completely new programming language. The use of Java required a completely different approach, but SEFL's developers quickly adopted this new programming language largely for the productivity improvements that it brings. A web and Java interface allows SEFL to support all of its technology and application development without making major changes. Because Verastream is a complete integration solution, SEFL could easily access data, integrate with user interfaces, or integrate on an application level – giving the company a "one-stop shop" for its integration needs.

Now because employees can access applications on the Web, they are also quickly becoming more productive. Previously, each user would have to scan hundreds of screens before finding the one – out of 2,800 menu options – that ran the application they were looking for. Part of the conversion entailed customizing each user's menu. With the web-based interface, only the options specific to each user's tasks are displayed; for most users, a 2,800-menu system is now just a 50-menu system. Throughout the migration, users can log on to their ALL-IN-1 applications as usual and see the interface they have been using for years. As each department's migration is complete, users will see an easy-to-use, web-enabled Verastream interface. To make the transition even smoother, applications are converted on a set schedule.

Additionally, the transition to a GUI environment from a mainframe terminal meant SEFL employees found it much more intuitive because of the web interface. SEFL could now query host information as if it were a database. As a result, SEFL enhanced speed of customer service and reduced IT costs through improved efficiency.

In fact, Robinson recalls many users proclaiming "It's about time we get out of the Dark Age," when first hearing about the transition. Cobol and ALL-IN-1 were state-of-the-art 20 years ago, but SEFL continued to develop business applications ever since, using these processes that quickly became antiquated. Now, novice users that could barely perform simple word processing functions can send spreadsheets to customers. In addition, SEFL users can access applications from their home computer's web browser. This was an added advantage during the recent hurricane season when employees could check in and use applications from home rather than brave the storms to get to the office.

All SEFL email is now converted to Microsoft Exchange, and in 2005, 100 percent of ALL-IN-1 programs will be eliminated and converted to Verastream.

The catalyst for this project was the forthcoming elimination of the ALL-IN-1 program. But had it not been for Verastream, Robinson notes that his organization would be faced with radical technology transformations such as changing the operating system, changing computer systems, and rewriting the company's entire Cobol environment. A homegrown solution just wasn't an option.

"It would be mind boggling if we couldn't salvage all that we could, namely the file system," he says. "Without Verastream, we would be looking at a 20 man-year project. It would be like bulldozing a building and starting from scratch."

For more information

For more information, you may contact Tom Bice at tomb@wrq.com, or you can visit WRQ at www.wrq.com.