

Snapshot

CSX
csx.com
Headquarters:
Jacksonville, Florida
Founded:
1827
Customers:
Industrial companies that ship raw materials, commodities, and finished manufactured goods via railcars or intermodal containers and trailers.
Employees:
More than 30,000
Revenue:
US\$10.6 billion
Oracle products:
Oracle E-Business Suite; Oracle Database; PeopleSoft Enterprise, Primavera, and Hyperion applications
Partner services:
CedarCrestone consulting and global IT services

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On Track for Growth

Upgrades to Oracle E-Business Suite and Oracle's PeopleSoft systems help CSX ride the expanding railroad industry.

by Alan Joch, May 2011

America's railroads are experiencing a back-to-the-future moment. The backbone of freight shipping in the U.S. since the 1800s, trains are enjoying renewed interest by customers eyeing rising energy costs that are forcing them to find more-efficient and more-economical ways to ship materials throughout the country. Railroads are coming into focus in part because industry statistics show freight trains burn only one gallon of fuel to move a ton of freight 480 miles. That makes trains about four times more fuel efficient than trucks, according to the U.S. Department of Transportation's Federal Railroad Administration.

Industrial customers are taking notice. Last year saw the biggest year-over-year gain in rail shipping in the U.S. in more than 20 years. One industry association recently predicted that rail companies will be on a hiring binge for the next five years—partly to keep up with demand and partly because companies will see many of their workers hitting retirement age during that period.

CSX, one of the oldest and largest rail companies in the U.S., is in the thick of these transformative trends. In business for more than 180 years, CSX employs more than 30,000 people and is successfully riding the economic recovery—the company's stock rose 63 percent in the last year. But to keep the company strong, management needs more than 21,000 miles of track and a modern fleet of energy-efficient locomotives. In addition to the operating infrastructure, CSX needs modern technology systems, so the rail company recently completed major upgrades of two core business systems: [Oracle E-Business Suite](#), which manages CSX's financial processes, and [Oracle's PeopleSoft Enterprise](#), the main platform for human capital management.

When CSX went live on the latest versions last August, new capabilities brought immediate benefits to the company, while also bolstering its underlying technology foundation. CSX is now poised to unveil long-term innovations built around a service-oriented architecture and more-sophisticated business analytics. At the same time, the upgrade gave CSX management the foundation to replace an old and expensive mainframe revenue accounting system. "We saw strategic benefits by partnering with Oracle, which has a history of keeping its technology current and continuing to grow its products," says Tony Papa, director of applications development at CSX.

Solid Financial Foundation

With two upgrades on the agenda, CSX pulled off a two-pronged implementation plan that launched each of the new systems on back-to-back weekends. To accomplish this, IT leaders at CSX formed two implementation teams consisting of technical and business staff that worked in parallel over the first seven months of 2010.

The first application to go live was Oracle E-Business Suite 12.1, a platform CSX has been relying on since 1998 for a wide variety of activities ranging from accounting, cash, and treasury management to purchasing; inventory control; and governance, risk, and compliance duties. A tight implementation plan wasn't the project's only challenge; managing the sheer scale also required careful planning. CSX had to roll out the changes to 10,000 Oracle E-Business Suite users across 23 states. Training took time because the user interface for the latest Oracle E-Business Suite release had changed somewhat from CSX's earlier version. On the technical side, the IT staff had to run hundreds of upgrade scripts supplied by Oracle to revise the underlying Oracle E-Business Suite database, which spanned 1.7 TB.

Those are big jobs under any circumstances, but the desire to minimize the impact on business operations added extra time pressure. The CSX implementation clock started at noon on Friday, with plans for the cutover to the new business systems scheduled for Sunday morning to allow the business and technology groups to review thoroughly. The schedule called for sign-offs by business department heads to indicate that everything was in working order by Sunday evening. To help meet these goals, Oracle provided technical support throughout the planning process and kept an expert onsite to step in as needed throughout implementation weekend.

In the end, everything went as planned. "When everybody came in Monday morning, they were using 12.1," Papa says.

Upgrade plans were put in motion in 2009 when the CSX controller group became responsible for freight revenue accounting, an activity at the heart of CSX's business that generates bills for all the products and materials that its trains transport across the country. This important area was being managed by a mainframe application written and launched by CSX in the early 1990s. "It ran COBOL and had all the maintenance costs associated with an aging system," Papa says. "The time had come to retire the old system and move it onto a modern platform, and the upgrade laid the foundation for migrating off the mainframe and onto Oracle."

In addition to eliminating those maintenance costs, moving freight revenue accounting to the latest version of Oracle E-Business Suite will enable CSX to take advantage of a consolidated billing, collections, and accounting process inherent in the Oracle enterprise resource planning (ERP) suite. The legacy system allowed CSX to upload only summaries of freight revenue information to the general-ledger portion of Oracle E-Business Suite, which limited the financial details available within a single system. Now, with complete records of freight revenue funneling into Oracle E-Business Suite, the finance staff can drill down from the general ledger to find answers to any questions that arise.

PeopleSoft Pays Off

While one team of business and technology people worked toward the Oracle E-Business Suite launch, a separate group plotted the upgrade to PeopleSoft Enterprise 9.1. CSX needed the latest version for its Web services capabilities, which over time will help the company replace its legacy HR programs. Web services will also be a way for CSX to bolster security. Each of the mainframe HR applications maintains a separate database of employee information; accessing employee data with one shared Web service will make it easier to manage and protect the sensitive information.

In the near term, CSX is benefiting from PeopleSoft's person-model module, which gives HR executives a more effective tool for maintaining employee information and assigning codes to accurately describe each person's relationship with the company. This tool is paying dividends for CSX's employee onboarding activities. "We've been able to clean up our records and streamline the whole process," says Papa.

In the past, a standalone master employee program maintained personnel records and sent updates to any CSX application that needed the information, which ranged from HR applications to plant security systems. An ongoing challenge for CSX was the additional tracking required for outside contractors, retirees, and spouses receiving benefits from deceased former employees, plus regular full-time employees. In the past, CSX relied on custom codes to distinguish each of these groups. Contractors received a Z at the start of their employee ID, for example.

But when everybody is lumped in the system as an employee, a coding error might mean that a spouse or contractor begins receiving checks from the payroll system. "With the person model, there is no opportunity for somebody to get paid or get benefits that they're not supposed to get," says Michele Hellstern, director of human resources information systems and workforce analytics at CSX.

With the new PeopleSoft implementation, software executives can also readily create reports about any group in the personnel database to see how many full-time employees and contractors are working in a particular department, for example, without facing the onerous task of writing custom queries using unique codes. In a time of staff volatility the new system also enables CSX to use the same employee IDs to track an employee throughout his or her career with the company, even in the common instance that someone begins as a contractor but is eventually hired as a full-timer. "We can look back to track all of their training and certifications over the years," Hellstern adds.

Eventually, the person model will help CSX create a Web service that feeds employee information to all the other applications that now maintain separate records. "Our vision is to create a portal for managers and employees that all connects back to PeopleSoft," Hellstern says.

That single source of truth would support improvements in two areas critical to HR managers at CSX: talent management and succession planning. Facing a wave of retirements in the next few years, executives at CSX need new tools to track the skills available in the workforce and identify where investments must be made for training and recruitment.

CSX's HR department has created a plan to rotate younger managers into a variety of new positions to round out their understanding of CSX's operations and acquire skills to fill vacancies as they open up. CSX is also re-evaluating its compensation program, which relies heavily on manual processing of compensation plans and incentive bonuses. These activities may eventually be managed by PeopleSoft eCompensation Manager Desktop, which would eliminate another custom application and the hard-to-maintain customizations that come with it.

Succession planning is another area currently being handled by a third-party program, which requires custom interfaces to facilitate data flows between it and the PeopleSoft implementation. But CSX sometimes experiences data-integrity problems when information needs to be consolidated between two systems. The problem: updates to information in the core PeopleSoft system aren't immediately reflected in the third-party applications, which rely on nightly batch processes. This creates a scenario where an executive may receive a succession-planning report that's been created with old data and the information can't easily be refreshed until the next day.

The PeopleSoft upgrade is also spurring CSX to evaluate all of its third-party HR systems to determine which ones it can now replace with the new capabilities. "There's clearly value in having everything in one system so you are not having to go reach out to all these other systems and get the data," says David Carter, director of client services for CedarCrestone, an IT systems-integration company with expertise in ERP solutions that works closely with CSX.

"CSX had the faith in CedarCrestone to tackle this upgrade project with them, and their faith has been validated," Carter adds.

Separate systems also challenge reporting and analytical activities, because each system may format data differently. In the meantime, analysts must continue to pull the desired data from PeopleSoft and then manually slice and dice the information to coax out comparisons of performance data for particular time periods. CSX management is looking to use consolidated data records as a base for expanding its analytical capabilities.

Hellstern is meeting with Oracle representatives about business intelligence technology, including Oracle Human Resources Analytics, with the goal of eventually creating dashboards that display much of the information CSX executives need. "This would allow a vice president to drill down into his or her group to identify trends or to see at a high level results about the overall workforce," she says. "Our overall strategy for analytics is to provide our executive team with the tools to do more modeling, forward projections, and what-ifs."

The Importance of Good Governance

Up-front planning was essential for CSX's successful simultaneous upgrade of its Oracle E-Business Suite and PeopleSoft Enterprise systems. In addition, company executives say, a strong governance team made a crucial contribution to the modernization effort's success.

The governance team provided a forum for keeping everyone up-to-date on the planning and preimplementation activities and offered a way for team members to find solutions when unexpected problems threaten to derail progress. "We wanted our business partners to feel comfortable when they went in and turned on the new system. We didn't want a technology upgrade to wreak havoc on the organization," explains Melissa Mucha, assistant controller and a committee organizer at CSX.

Getting technology and business groups meeting regularly was especially important given the scope of the upgrade project, which included 10 technology and 13 business teams. "We would talk through a status update for each of the modules in the testing process and identify any issues that were being discovered," she says. The group would then assign a red, yellow, or green mark for each module to show its ongoing readiness for the go-live date.

CSX established two governance teams to manage the ambitious IT project. On the Oracle E-Business Suite side, the group consisted of senior-level business and IT managers, Mucha and another representative from accounting, technology managers, purchasing professionals, and internal auditors. For the PeopleSoft Enterprise project, governance was managed by team members from HR benefits, payroll, and IT as well as internal auditors.

Mucha considered the internal auditors an integral part of each governance team. "As a public company, we knew our external auditors were going to require documentation of the testing we did for the upgrade," she explains. "So we partnered with internal auditors to walk hand in hand with us through the process."

The internal audit staff knew what information would be required for external oversight and enforced a discipline on the implementation teams to document their activities as they re-engineered processes and performed their systems tests.

"We got to a point where internal audit was actually participating in the business and technology meetings to stay abreast of any major issues," Mucha adds. "The result was that we didn't implement the system and then spend the next three months scrambling to get the auditors comfortable with our procedures. We stayed ahead of the game."

For More Information

[Oracle E-Business Suite](#)

[Oracle's PeopleSoft Enterprise](#)

[With Modernization Comes Housecleaning](#)

Alan Joch is a New England-based technology writer.