

# A TRAIN OF THOUGHT: APPLYING IT TO STAY on

by Jenny Mangelsdorf



CSC WORLD **FEATURE**

# TRACK



Warren Buffett agrees to buy Burlington Northern Santa Fe Corp. for \$26.3 billion. German Rail joins forces with Qatar Railways for a €17 billion project. And China's investment in railway expansion is rising this year to a record high of ¥823.5 billion. One would think a rail renaissance was underway.

A combination of environmental awareness, rising energy costs and road congestion continues to drive demand for both passenger and freight rail transport. Despite the current economic downturn, Europe's railways, for example, are predicting significant growth over the next 15 to 20 years.

That growth is not without challenges, however. Railways see increasing competition from the trucking and airline industries. They also have to address decaying infrastructure, disparate systems and demanding consumers. IT offers the potential to overcome these segment-specific challenges, drive efficiencies and level the field in today's competitive landscape.

"CSC has a long heritage of solving business-specific problems and addressing strategic challenges in the rail industry," says Mary Jo Morris, CSC Technology and Consumer Group president. "We are more than a CRM or an IT company — we understand the rail business end to end."

#### **Improving the customer experience**

In the passenger rail business, ridership in some countries has declined over the last several years. Research shows operators can help reverse that trend by creating individual relationships with passengers. In fact, a five-year European study released in

2009 validates that strong passenger rights and traveler participation improve the bottom line for public transport authorities.\*

CSC's customer-oriented solutions have helped numerous organizations, including Skånetrafiken, a Swedish transport authority, and Thalys, a European commercial passenger rail service (see "Technology Bridges the Gap," page 9, and "Thalys Wi-Fi Keeps Train Passengers Connected," page 10). We've helped them and others increase travel and revenue as well as meet consumers' heightened expectations.

"If you look about an intercity train today, virtually everyone is wirelessly online and working on their laptops for the whole journey," says Peter Edwards, CSC senior program manager in Switzerland. "For businesspeople, the journey is productive time, not lost time. It's also easier to travel by train — if you miss one, another will usually be along in 15 minutes, and it takes only moments to get on board. Trains have advantages that airlines simply can't compete with."

And technology can add to those advantages. As different modes of transport compete for business, technological advancements such as Wi-Fi-enabled trains could be the deciding factor for passengers.





# Innovation on Rails



"If you think about what it is that consumers like to do — what defines user friendliness to today's consumers — technology is front and center," adds Jim Taylor, CSC director, Transportation Services Industry Segment. "It's their cell phone, the instant message, the constantly being connected. This is what consumers expect today wherever they are. So, to attract more riders requires making rail transport as user friendly as possible, which should drive more investment in technology-based solutions."

## A wave of infrastructure improvements

In Europe, ensuring that train travel offers benefits over other transportation modes has been especially important in the wake of a proliferation of low-cost airline operators and improvements in roads. As passenger train operators look to increase ridership, those who operate and manage the infrastructure used by trains are also moving to improve their operations.

"A wave of investment in infrastructure is taking place," says Taylor. "Governments are using the current economic downturn to replace and improve existing infrastructure. Sensor-based technologies, easy passes, intelligent rail networks and rail cars — these innovations are out there, but not yet universally deployed."

CSC has a long history of innovation in the rail industry, delivering solutions for both federal and commercial organizations. We have designed, built and managed solutions for train operators, transit authorities and manufacturers in more than 10 countries:

- We helped France's SNCF roll out a major PeopleSoft transformation project, launched in 2005, to assist in its overall transformation by forming independent and auditable management entities.
- Using our Dynamic Sourcing approach, we helped integrate Dutch national railway Nederlandse Spoorwegen's vendor and railway operations and give the company the visibility and structure to efficiently manage IT vendor relationships.
- In 2007, we signed an IT services contract with Network Rail, owner and operator of the UK's railway infrastructure. The outsourcing agreement coincides with a significant infrastructure investment by Network Rail essential to providing the UK with a safe, reliable and efficient railway.
- We've worked with Transport for London, the largest transport group in the world, managing and supporting its service desk and desktop assets since 2007.
- In 2008, we signed a four-year contract with the National Railway Company of Belgium to help the company design, create and implement a new SAP-supported organization that will optimize operational processes, assisting employees in the finance and maintenance departments.
- Our commercial clients include ERS Railways (Netherlands); BASF, Evonik Industries, PCK Raffinerie, Salzgitter AG and Veolia Verkehr (Germany); voestalpine AG (Austria); BLS Cargo (Switzerland); and ArcelorMittal (Luxembourg).
- We operate the Competency Center for Logistics Solutions in Dresden, Germany, and team with Dresden Technical University to develop innovative transportation solutions, provide the university's students with real-world experience and draw on young talent with industry-specific knowledge.

\* <http://tinyurl.com/y86tf2g>



Deregulation is also playing a role, as operators work to ensure the smooth movement of trains among regions. However, countries are at different development stages. In Europe, trains have to maneuver through more than 20 different rail signaling and security systems. The predicted growth in train travel will create a need to maximize infrastructure to increase capacity and improve traffic flow.

“The aim is to ensure that forecasted growth will be absorbed by the infrastructure network,” says Hans-Joachim Lucke, Transportation and Logistics business manager for CSC in Germany. “Even if all planned investments in infrastructure take place, there will be bottlenecks in part of the networks.”

We have already developed various solutions to help operators improve their processes. In 1999, CSC helped develop, and still maintains, a train management and control system for the Australian Rail Track Corp.’s New South Wales network. Part of CSC’s work included developing an automatic intelligent monitoring service, GPS Watchdog, to ensure early notification of potentially hazardous situations and provide controllers with the tools and information to quickly respond.

CSC is also helping SNCF, the French National Railway Service, create a mobile paperless solution to support the country’s 16,000 train drivers (see “Modern Apps for Mobile Workers,” page 11). For Switzerland’s Federal Railways, which operates Europe’s densest and most intensively used railway network, CSC developed a rail dispatching system that more accurately forecasts rail traffic and allows higher network loads (see “Swiss Federal Railways Gets Next-Generation Dispatching System,” page 12).

#### **Moving cargo more efficiently**

For the freight segment of the rail industry, infrastructure renewal will also help smooth the movement of goods as traffic increases. European Commission analysts expect overall

demand for rail freight traffic to grow at a yearly average rate of approximately 3 percent until 2015.

“Up to 2015, rail networks expect to see a 25 percent increase in terms of train numbers for conventional traffic and an 86 percent increase in the number of combined transport trains,” notes Lucke.

Factors such as rising energy costs, a drive to reduce environmental footprints and increased road congestion point to why investors such as Warren Buffett are betting on a resurging rail industry and why some manufacturers already rely on this mode of transportation. Train travel releases from three to 10 times less CO<sub>2</sub> than driving or flying, according to the International Union of Railways.

In Germany, many large automotive, chemical and steel manufacturers use sizable internal railway networks, some of which have more than 100 kilometers in railway sidings and up to 400 rail-related loading and unloading stations. Manufacturers such as Volkswagen have turned to solutions based on CSC’s Rail Cargo system to help plan, control and monitor the rail networks that support their production facilities and factories (see “Volkswagen Drives Efficiency With Rail Solution,” page 14).

In the air and trucking industries, there’s already a great deal of visibility as to where materials are located throughout the trip. “For the cargo side, the challenge today is creating as close to a real-time supply chain so you know where things are in as close to real-time as possible,” says CSC’s Taylor. “Transit times will vary between transportation modalities, as will price. However, you want operational efficiency to be as close to or equal as possible between the different forms of transportation, and technology is a great way to level that playing field.” ■

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