

Case Study

BlackBerry Supports Reliable Dispatch Solution For National Rail Leader



Company: CN and its subsidiaries handle rail and rail-related transportation. The company offers an intermodal service which includes a fleet of 350 trucks that pick up and deliver fully loaded containers from rail terminals and business locations throughout Canada and the US.

Industry: Transportation

Region: Americas

Company Size: Large Enterprise

Email Environment: IBM® Lotus® Domino®

Type of Solution: Dispatch and Operations

Business Challenge: An outdated and cumbersome dispatch system needed to be revamped. The new solution had to repurpose the existing functionality of a system already used by CN, involve a limited learning curve to build, and be easy to integrate with the existing infrastructure.

Solution: Each of CN's 350 intermodal transport drivers was given a BlackBerry® device, equipped with a custom dispatch solution. The BlackBerry Enterprise Server® for Lotus Domino was installed, and the BlackBerry Mobile Data System™ (MDS) was enabled to support a new driver communication solution – built by the company's IT group and Genetec Information Systems Inc.

Results:

- Cost-effective dispatch process
- Reduced IT support costs
- Accuracy for customers
- A solution with room to grow



The Challenge: Replace Outdated Dispatching Technology with a Scaleable Alternative

CN has a fleet of 350 trucks that picks up or delivers fully loaded containers from rail terminals and business locations. The service, called intermodal transfers, offers customers door-to-door pickup and delivery of their freight. The intermodal service is offered in Canada and the US, though trucks are only centrally dispatched from the nine terminals in Canada.

Until recently, the dispatch center relied on a driver communication system that was hardwired into the trucks and offered many challenges:

- It was an early Mobitex application that used the X.25 protocol, an international standard for packet-switched data networks
- The equipment wasn't portable from truck to truck
- The 2.0 network it was built on was being shut down
- Making even the smallest changes to the system was a major endeavor
- It wasn't cost-effective to install the system in trucks operated by seasonal drivers
- Problems on the road had to be communicated by phone and technicians had to be dispatched to locations – holding up deliveries

"It was very expensive to maintain and modify new code," says René Roy, IT Project Manager. "Every time we wanted to change anything, we had to replace a flash card. The equipment was aging and hard to upgrade."

CN already knew the value of BlackBerry as a corporate solution for its executives who used it for wireless email. In 2003, they investigated the BlackBerry Enterprise Solution™ as a simpler alternative to their dispatching challenge.

BlackBerry Offers Platform for Custom Dispatch Solution

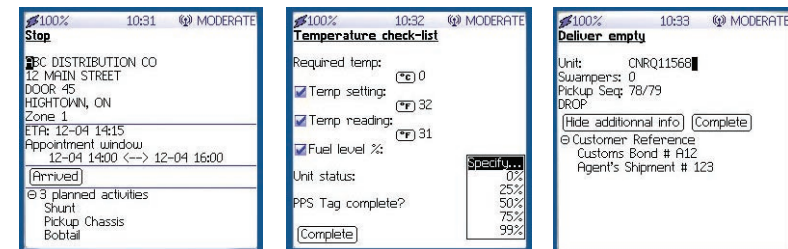
The BlackBerry Enterprise Solution was chosen as the platform for a custom dispatch solution, both because of the company's familiarity with it through their corporate program, but also because it gave CN the freedom to design what it needed.

They chose to work with Genetec Information Systems Inc. – a partner who had helped them customize their first solution. While CN designed the solution, it was Genetec that executed it, using its expertise in developing mobile applications.

"We weren't just interested in someone who knew code," says Roy. "We like working with Genetec as a partner because they know our business needs and can keep the learning curve to a minimum. We also wanted to make sure the solution worked with our infrastructure."

Each of the 350 drivers was equipped with a BlackBerry device. The devices deployed to the drivers were used exclusively for the custom dispatch solution since the drivers did not need access to email, calendar or phone. The BlackBerry Enterprise Server for Lotus Domino was installed, and the company's IT group built a custom dispatch application using the functionality of BlackBerry MDS.

The dispatch system, called Northstar, was built in Java™ on the devices. At the backend, it relied on Visual C++ and Oracle® to communicate between the CN dispatch system and the device.



Screen shots of Northstar Custom Dispatch Solution

A Fit with the Infrastructure

CN's new wireless solution needed to be portable, reliable, cost-effective and, most of all, be easy to integrate into the dispatch system infrastructure.

Roy says that the BlackBerry and Northstar solutions were relatively easy to implement from an IT perspective. It has given them more freedom to upgrade the solution, if they need to, since they control the source code. "Although we have no specific plans, our BlackBerry solution has opened the door to any new application we may want to investigate," he says.

They have eliminated the bugs that existed with the old system, lightening the load for the IT team who supported the solution and the drivers who suffered through the frustrations of being out of communication.

And most importantly, the solution has proven extremely cost-effective. In comparing the support and maintenance costs from the old dispatching hardware to BlackBerry, Roy estimates they are saving 65% of the costs. As well, they can now temporarily offer a BlackBerry device to a seasonal driver without making a huge technology investment.

New Functionality: Greater Effectiveness

In the intermodal business, drivers do not have specified routes. A driver is assigned moves at the start of the day from the central dispatcher. Driver's schedules change day by day, depending on what needs to be moved each day.

CN customized the BlackBerry and Northstar solution to respond to this business need. Drivers are only shown each move one at a time. That way, schedules can remain fluid according to the dispatch needs and push technology ensures that the moves are communicated in a timely way.

One of the big changes with the system is that drivers and dispatchers no longer depend on phone communication as much. If they need to discuss anything about the route, the new application has a greatly improved text messaging facility. Roy says this has helped better use resources and time.

"Our drivers like it because it's more reliable," he says. "They can get their assignments must faster."

A driver also logs onto their BlackBerry device when they arrive and leave a location. This not only makes it easier to schedule, and report back to customers about delivery times, it ties directly into the driver payroll system.

"With BlackBerry, we can now see where drivers are with more accuracy and report to our customers," says Roy. "We've cut the phone calls down by 50%, which means dispatchers and drivers can manage their time better. Since drivers are paid based on what moves they do, we now have an extremely accurate way of tracking their progress."

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They can get their assignments faster."***

~ RENE ROY, IT Project Manager, CN



Results

Cost-effective Dispatch Process: Their custom dispatch solution allowed CN to use its dispatch resources more effectively, with a 50% reduction in the reliance on costly voice calls between the drivers and dispatchers.

Reduced IT Support Costs: CN reduced its onsite repairs and IT support costs by 65% as compared to the old system.

Accuracy for Customers: More accurate driver and time tracking delivering improved customer service and improved driver payroll management.

Room to Grow: CN's innovative use of BlackBerry illustrates the versatility of the solution and how it can be adapted to meet a variety of business needs. Flexible implementation means the solution can easily grow and adapt to the changing needs of the organization.

For more information on BlackBerry solutions, visit www.blackberry.com/go/success

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