

Wireless oilfield

New systems emerge for field ticketing and oilsands camps

ADVANCES IN TECHNOLOGY CAN CHANGE many aspects of oil and gas operations. Today, wireless connectivity is providing the groundwork for a whole host of new systems, including paperless field ticketing and oilsands facilities that are more efficient, secure and comfortable than in the past.

For a number of years, Calgary-based well logging and perforating company Tucker Wireline had been considering moving to an electronic, paperless system for field invoicing. This plan was set in motion through an agreement with Spira Data Corporation and Telus in mid-2004, and Tucker vice-president of technical services Dave Jellett says the change will make a big difference for operations in the future.

"With the majority of our revenue being generated at the wellsite—often remote—there was a constant problem of trying to get field tickets into Calgary to be processed and delivered to the client. This often delayed the work-completed-to-invoice date by up to three weeks, which of course also means a similar delay in the payment of invoices," Jellett

explains, adding that a number of other operational efficiencies will be achieved by going wireless.

Because field crews are paid partly based upon their invoices, paper tickets sometimes result in late paycheques. Completing complex pricing calculations by hand while trying to do the job itself in a 24/7 environment can result in errors, and paper tickets must be handled by accounting, sales and data delivery services before processing. It can now be done simultaneously, reducing errors and the amount of time required. As well, Jellett says the wireless system allows Tucker to interface directly with various clients to deliver invoices more quickly and allows the company to better measure events and actions by field crews at the wellsite.

"Companies can get paid faster, pay people faster and report more easily," says Jeff Lowe, vice president of oil and gas marketing with Telus. "You have the information captured one time at the source."

Lowe says wireless ticketing can give service and supply companies a leg up over the competition, estimating that

there are more than 4,000 companies that could benefit from using the system.

"This is a highly competitive industry with a lot of players and a part of the business that is still very paper-laden," he explains. "A ticket on a clipboard can take a couple of weeks to reach head office."

The idea of wireless ticketing is to bring the efficiencies of the head office to the field. Telus has taken that concept, but also wants to move some of the comforts of head office into the field. It is counting on the explosive growth of the oilsands to give its latest camp offering a higher profile.

Tens of billions of dollars will be spent on oilsands construction over the next few years, and that means many work camps and new facilities will have to be state of the art and comfortable in order to retain employees.

"Small towns are being built in a remote setting," Lowe says. "From a communications standpoint, that has significant and widespread ramifications."

Telus has come up with a multi-phase system called "Camp in a Box," which offers everything from planning, scheduling and ►

on-site corporate applications to fingerprint-driven security, monitored movement and high-speed Internet in every room.

The Telus system has five different phases. First must come the bandwidth coverage required to drive all these applications in a remote area. "Business needs require a high degree of bandwidth. That's where it starts," he says.

Next come business services within the site, including e-learning tools, map and data services, as well as training and application services like web, video or phone conferencing. "Typically, this comes with a lot of tie-in to handheld devices," Lowe says.

The third phase of the system relates to safety, security and the environment. In addition to access control, emergency notification and two-way messaging to and from the field, this includes vehicle tracking that provides information on seatbelt usage, braking, idling and speed. "It's pretty incredible technology, and it's a big play for our customers from a safety perspective."

One of the key points of Camp in a Box is the quality-of-life aspect it can provide.

"It's really around employee retention," Lowe says. "There is an incredible amount of money and activity going into the quality-of-life aspect."

The final aspect of what Telus calls "the camp of the future" is labour and project management, which means the company can design and build communications infrastructure and support it throughout the life of a project. Lowe says this aspect, like the entire concept of Camp in a Box, can be designed to adapt to a company's specific project.

"Depending on business needs, each one looks different," he explains.

— **Deborah Jaremko**