



Edmonton Economic Development Corporation Installs Optical Link

Canon equipment was selected for the quarter-mile 1.25 Gbps broadband connection

By BBP Staff

What do you do when you move 75 percent of your workforce a quarter mile down the street to a historic building, and the local phone company wants about \$36,000 (US dollars) for the fiber broadband link between old and new to start, plus almost \$1,400 a month? The Edmonton Economic Development Corporation (EEDC) went to a 1.25 Gbps optical link, installing a pair of Canon Canobeam DT-130s (the top-of-the-line \$28,400 system) instead. Systems integrator Glentel did the installation work. This may be the fastest optical link in Canada.

EEDC is a not-for-profit company wholly owned by the City of Edmonton, the largest big city in Canada's Alberta Province. It is responsible for regional economic development, tourism marketing, management of the Shaw Conference Centre, and management of Edmonton Research Park. The Free Space Optics link is only part of a dedicated broadband wireless network Glentel built inside the building itself. Why wireless? The old structure, which had been vacant for seven years, lacked any broadband infrastructure inside.

EEDC wanted at least 100 Mbps for the link, and also was worried about security. "Security is always a priority as our high-profile company manages sensitive information," said John Kratochvil, EEDC's Director of Information Technology. "For many of our mission-critical applications we felt radio was simply not secure enough for our downtown of-



The new EEDC headquarters is in a historic downtown Edmonton building subject to traffic vibration, high winds, and harsh northern climate.

ices because it bounces off everything."

"Situations like the one at the EEDC are becoming more common," Bruce Olynik, Area Sales Vice President for Optelligence Canada, the marketing support for Canon said. "Add the benefits of utilizing light to transmit data with an affordable price tag, and Canon has made Free Space Optics a powerful option for any organization seeking building-to-building network connectivity."

Canon pioneered such optical links, and has been known as a technology leader commanding a premium price. The cheapest model in the Canobeam line sells for about \$13,500 a pair. But

Canon offers an "Auto Tracking" function automatically adjusts the light beam to compensate for even the slightest variations in the installation base (due to building or traffic vibrations, temperature changes, or wind).

Glentel also had the units up and running in just a few days. "The guys at Glentel did a very good job installing the DT-130 and they provided us with a level of service that met our expectations," Kratochvil said. "Too often technology gives you a suitcase full of oversized expectations. Canobeam, however, is doing exactly what Canon said it would at an optimal level."





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Kratochvil added: "What helped seal the deal for us is the fact that we will end up owning the equipment. If a similar situation ever occurs again we can just reposition the Canobeam. It's a real win-win scenario for us." He expects the system to be maintenance-free despite Edmonton's harsh climate

A few weeks after the system was installed last year, Edmonton experienced a torrential rainfall – almost 6 inches in less than two hours.

Some forecasters described it as a once-in-200-year storm. "This storm was enough to put any system to the test and many parts of the city experienced some

type of communication failure," Kratochvil said. "The Canobeam, however, never experienced a hiccup. Since then I haven't worried about it because it's been so reliable."

There were several benefits from implementing the optical link that Kratochvil had not anticipated.

First, because it can transmit 1.25 Gbps in either direction, the DT-130 provided a backbone that gives EEDC end-to-end Gigabit connectivity from workstations to the server farm, which remained in the old location. There are no slow-down or stalling systems nodes.

Second, leaving the servers behind in the original building allowed EEDC to provide redundancy without doubling infrastructure costs. ♦

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