

# New TETRA Contracts Pending



Photo courtesy BC Hydro

The first North American system is rolling out, and an RFP is under way.

By Michelle Zilis

TETRA is making inroads in several areas in North America. While industry sources say many contracts are pending but have not yet been announced, the attitude and outlook are positive. At least one Canadian request for proposals (RFP) is under way.

“For TETRA, North America is an emerging market, and manufacturers are keen to develop their ecosystems to provide the necessary support networks for their customers,” said Phil Kidner, CEO of the TETRA + Critical Communications Association (TCCA). “This takes time to achieve.”

The market is active and promising, said Dave Thuringer, product manager, Cartel Communication Systems. “What we say to clients is if you’re considering a migration or some significant update to your radio communications infrastructure, you owe it to yourself to look at TETRA,” he said. “That’s our message and it’s being received. We just have to get out there and do more of it.”

“There are a number of potential contracts in the pipeline, which are likely to become public once contracts have been awarded,” Kidner said.

In addition to not-yet-announced deals, several agencies are publicly moving forward with the technology. In October, DRS Technologies Canada and Selex Elsag, both Finmeccanica companies, were awarded a contract worth about CAD\$11 million (US\$11.2 million) by the

Department of Public Works and Government Services Canada for upgrading the Canadian Navy’s HALIFAX Class Frigate internal communications system (ICS) with TETRA technology.

Delivery of the equipment is expected to begin in 2013 and to be completed by the middle of 2015. All communications within the ship and external voice communications are controlled through a SHIPboard INtegrated COMmunications System (SHIN-COM), which includes the ICS internal wireless communications technology that facilitates non-wired communications among damage control teams, flight deck crews and 50-caliber gun teams during mission-critical operations.

The Toronto Transit Commission (TTC) released a TETRA-specific RFP Dec. 3. The RFP closed Feb. 27 and focused on the system infrastructure. “The contract is for the supply of labor, products, installation, testing, system acceptance and services nec-

essary to complete the TETRA radio infrastructure work,” the notice said. The system must provide wireless communications throughout TTC’s services areas and throughout the operational area of TTC’s Subway Radio Antenna System (SRAS), the notice said. A second phase will include another RFP for terminals.

BC Hydro, a Canadian utility company, awarded a contract to SMi/PowerTrunk for a fully operational TETRA system in November 2011, and the network roll-out is now in advanced stages.

“Although this system is set to be the first operational deployment of TETRA in North America, we required all bidders to provide proof and references of at least three previous large-scale deployments of their technology,” said Adam French, BC Hydro telecommunications manager, in a November 2011 interview with *MissionCritical Communications*. “The TETRA technology has large-scale utility deployments worldwide, and any concerns we may have had regarding the ability of PowerTrunk/SMi to provide, deploy and support international mobile radio implementations were more than amply addressed.”

New Jersey Transit (NJ Transit) is building an Alcatel-Lucent/PowerTrunk system after unanimous approval by the board of directors. Since the award in March 2012, there has been a regulatory debate regarding the type of emissions mask used on the PowerTrunk equipment. But

the FCC has not yet released an order.

Both NJ Transit and BC Hydro completed TETRA pilots before releasing RFPs for new digital systems. NJ Transit's two-site pilot network operated equipment supplied by PowerTrunk.

BC Hydro's two-site pilot installation allowed field crews, engineers and support personnel to test the system and have a hands-on evaluation of the technology, French said. During the pilot, BC Hydro observed that the feature set matched requirements and expectations, and the distributed architecture was survivable if the WAN failed. The utility determined that TETRA could fulfill mobile radio feature requirements, but it was unclear if it could replace cellular use. The coverage met the requirements without the need for additional sites, while a UHF Project 25 (P25) system would need additional sites, said Sol Lancashire, telecom architect, BC Hydro, in a *Mission-Critical Communications* webinar.

Nielson Communications conducted a TETRA demo network to demonstrate multivendor interoperability in Green Bay, Wis., with equipment from Rohde & Schwarz (now Hytera Communications) and Sepura.

In addition to utilities, mining and transportation, Nielson Communications has received interest from industrial users, specifically for plant communications, said Rick Nielson, president of Nielson Communications.

One of the key issues with TETRA is spectrum. "TETRA works well in business critical, mission critical and high-density applications," said Cartel's Thuringer. "It is still only available currently in the 400 and 800 MHz bands. So if you're in the VHF band and you've got to stay in the VHF band, then there's no solution."

In Canada, TETRA can be used by public-safety organizations. In the United States, the FCC order said TETRA can't be used in public-safety spectrum. Motorola Solutions and the Association of Public-Safety Communications Officials (APCO) have raised spectrum-related queries with the FCC about the order.

"It is interesting to note that APCO has stated that a clarification is needed because their frequency coordinators have already received requests for frequencies to be made available for TETRA," said Kidner. "This seems to support the view that the demand is there."

For Canadian public-safety users, there aren't regulatory questions, but other factors come into play. "It's a matter of frequency," Thuringer said. Similar to the U.S., P25 technology is used by most public-safety agencies in Canada. "I suspect P25 in the public-safety market will be the dominant technology for a long time, and I don't think we're going to displace that," Thuringer said.

But for mission-critical users outside public safety, the standard is proving to generate much interest. ■

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