The Boulder County
BUSINESS REPORT

Aug. 19 - Sept. 1, 2005

Fidelity Comtech's system beams info to first responders

BY LAURA BISHOP
Business Report Correspondent

LONGMONT – When police, firefighters and first responders need to download critical information in the field, they need a wireless system that is affordable and secure.

To answer that need Longmont-based Fidelity Comtech Inc. developed a system known as the Phocus Array System for public-safety departments and the military.

Rick Prouty, vice president of business development for Fidelity Comtech, said the system sends a signal farther, which reduces the number of access points needed to cover a geographical area. The technology automatically controls the signal beam and rapidly repoints it to the intended recipient when necessary.

The 9-pound system, which includes an antenna, is installed high up on outdoor poles. Prouty said the system is inconspicuous and doesn't stand out like a cellphone tower.

Joe Carey, president of Fidelity Comtech, said many police departments today pay cellphone companies to download emergency data. He said it would be more cost-effective for the municipality to build its own wireless system for its police and fire departments.

Prouty said police officers often download information from other law enforcement databases, while firefighters download information on a building that is on fire. Firefighters using Fidelity Comtech's system also could set up a network of cameras around the fire.

"(Municipalities) are trying to get more data into the hands of the people on the scene," Prouty said.

Carey said the product was designed to help reduce interference and to increase reach and security.

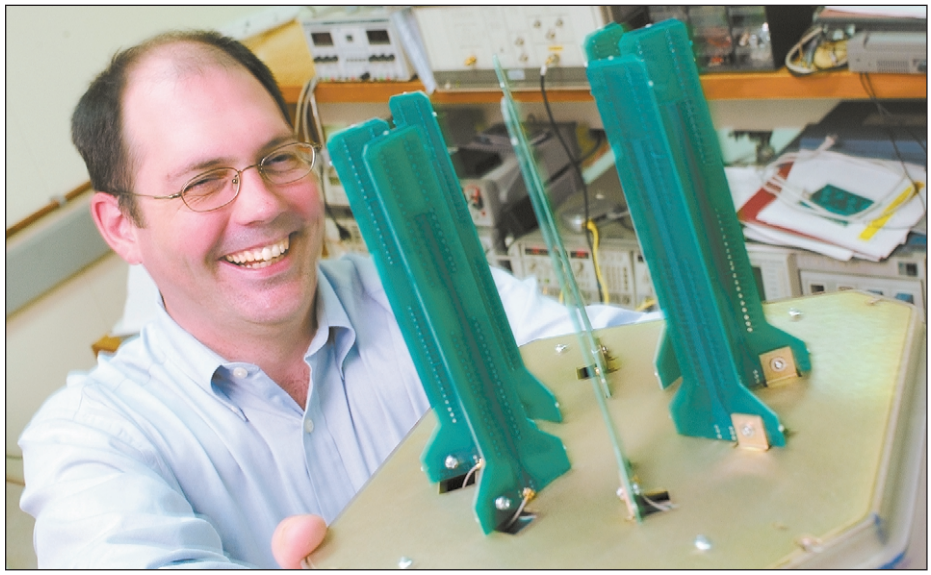
"All three of those are important to the user in the market," he said. "Which ranking they put on them changes with the user. The thing we have been able to do is steer a beam at an affordable price point."

Carey said the system would sell for $3,500. He said it is less expensive because fewer systems are deployed compared to current wireless-network installations.

"What is unique about it is it's a wireless LAN system that focuses its antenna beam on a partner station, client or access point," he said. "The benefit achieved by focusing the beam is that you can send the signal farther, reduce interference and enhance security."

Carey added there are a number of companies involved in wireless systems, but Fidelity Comtech is the only company working on a system that electronically steers a beam.

The system is in the advanced prototype stage, and there is a patent on the core technology. Carey said the company is currently seeking Federal Communications Commission approval and expects it in the next three to six months. Fidelity Comtech, which started in 2001 with other wireless data-networking products, began developing the system in January 2003.



JONATHAN CASTNER

Joe Carey, president of Fidelity Comtech in Longmont, holds a Phocus Array System. The wireless system improves the transmission of data accessed by police, firefighters and first responders in the field. "What is unique about it is it's a wireless LAN system that focuses its antenna beam on a partner station, client or access point," Carey said. "The benefit achieved by focusing the beam is that you can send the signal farther, reduce interference and enhance security."

Continued on page 2 ➤

➤Continued from page 1

Prouty said previous customers have helped focus the development of the system's requirements.

Fidelity Comtech has four full-time and three part-time employees. Business incubator CTEK Longmont helped the company set up its own board of advisers.

Carey said the company developed the technology using a National Science Foundation's Small Business Innovative Research grant. Fidelity Comtech received two grants worth $600,000 that enabled the company to get to the current development stage.

Prouty said Fidelity Comtech also has a contract with the U.S. Air Force worth $842,000 over two and one-half years and a relationship with the University of Colorado at Boulder. CU has a subcontract with Fidelity Comtech to do some testing as part of the Air Force contract.

Tim Brown, a professor of electrical engineering at CU, said over the next year he will work with four graduate students to test the system at Table Mountain near Lyons. Brown said he plans to install seven systems and will test communication distance and security in cars and unmanned aerial airplanes and between the cars and airplanes.

Brown said he would test plane-to-plane communication up to 10 kilometers and car-to-car communication up to two to three kilometers.

Once Fidelity Comtech's system is installed, Brown said he expects to see improvements over the current system.

"We think it will make our links more secure," he said. "People can't hear you unless you are pointing the beam at them."

While the testing at CU will help the Air Force, Carey and Prouty are looking for the right field test for municipalities, which they say are an emerging market.

"We have developed wireless technology for municipal applications that is small, flexible and affordable," Prouty said. "It meets their needs. It solves networking issues they will have."

Fidelity Comtech Inc.

2400 Trade Centre Ave.
Longmont, CO 80503
(303) 678-8876
www.fidelity-comtech.com