



DHS unveils wireless radio for emergency response

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The Homeland Security Department unveiled a pilot program on Wednesday that will allow a city's public safety officials to communicate on one network, without having to purchase additional equipment.

The program, which DHS will test in the District of Columbia, integrates land mobile radio networks that police, firemen and emergency medical service workers use with cell phone broadband networks and wireless Internet devices, including laptops and personal digital assistants.

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With the new technology, a public safety official can communicate with personnel in the field using a cell phone, land radio or computer all on the same network. The technology also allows them to contact colleagues in different departments or nearby municipalities without reprogramming their radios or having a dispatcher connect them.

In addition, the software can locate personnel using the Global Positioning System and cell phone triangulation so officials can follow the movements of field workers in real time. Officials responding to a disaster can immediately scan an area to see who is nearby and notify them of the situation, regardless of the person's department affiliation or the communication device they use.

The need for better communication between first responders has been an issue for cities ever since the Sept. 11 terrorist attacks, when fire fighters and police could not communicate to coordinate their rescue efforts. Buying new radios that all first responders can use typically has been too costly for most cities.

The program is being conducted through a partnership between DHS and the District of Columbia's Office of the Chief Technology Officer. At a demonstration on Capitol Hill, officials with DHS, the D.C. Fire Department and the program's commercial partners expounded on the advantages of integrating the various methods of communication public safety personnel use.

"Most first responders communicate with radios," said David Boyd, director of the command, control and interoperability division at DHS' Science and Technology Directorate. "We can't afford to replace everything in their infrastructure. That's a pie in the sky notion."

Instead, Boyd said DHS looked for ways to use existing land radio networks while adding new functionality offered by the more advance technologies.

The new technology allows communication between any device such as a cell phone or a laptop with a traditional land radio, using Internet protocol. That allows departments and cities with smaller budgets to use some facets of the new technology without necessarily replacing their existing radio network.

Deputy Fire Chief Demetrios Vlassopoulos, chief information officer for Washington's Fire and EMS department, said the technology will inspire innovative ways to communicate with other emergency response organizations. "We have traditionally done a good job building our own systems," Vlassopoulos said. "We need to a better job communicating with each other and leveraging our resources."

While enthusiastic about the potential of the new technology, Vlassopoulos said D.C. firefighters would not be using the equipment soon. Ensuring voice communications are available during a disaster was top priority for emergency response personnel and without assurances from commercial wireless carriers that public safety officials would have priority access to wireless networks during times of disaster, those officials could not relinquish their land radio networks, he said.

"The experience with every major emergency in the U.S. is that commercial [wireless networks] aren't there a few minutes" after the disaster, said Vlassopoulos. The load on a wireless network during a crisis often constrains communications, something that does not happen to radio networks, he said.

Every follow-up report about a response to a crisis mentions communication between various public safety entities is problematic, Vlassopoulos said. "The fact remains, will it be there for us on -- God forbid -- another bad day?" he asked. "We need that guarantee."

If the pilot program is successful, DHS plans to roll it out in other cities. The department is attempting to convince commercial wireless carriers and radio manufacturers to embrace a common set of standards for public safety officials that will allow interoperability with much greater ease.

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