



## DHS unveils interoperability technology

- By [Wyatt Kash](#)
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DHS unit demonstrates new Radio over Wireless Broadband application

The Homeland Security Department and Washington, D.C.'s, Office of the Chief Technology Officer (OCTO) introduced a working prototype of a new interoperable communication technology, called Radio Over Wireless-Broadband, at a pilot demonstration on Capitol Hill yesterday.

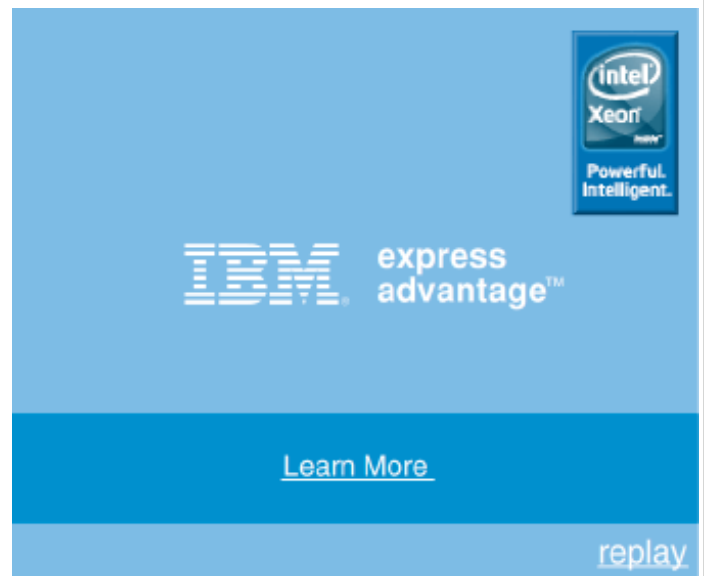
The ROW-B technology connects existing wireless radio systems with computers, smart phones and other devices used by firefighters and emergency services providers.

The technology uses a new implementation profile known as Bridging Systems Interface. BSI relies on standard IP/SIP (Session Initiation Protocol) messaging as a medium to provide voice over IP access to Land Mobile Radio (LMR) networks. But it also integrates data applications, including real-time location mapping, and the ability to detect the presence of users on the network and enable location-based group calls.

The pilot program is being developed jointly by DHS' Office for Interoperability and Compatibility, the National Institute of Standards and Technology's Office of Law Enforcement Standards, the Institute for Telecommunications Sciences (ITS), and a variety of industry partners, including ISCO International and Raytheon JPS.

"The capability to communicate among radio and broadband system users will significantly improve emergency response operations by allowing non-radio users to communicate with response units in the field," said Dr. David Boyd, director of the Command, Control and Interoperability division in DHS' Science and Technology Directorate.

In a demonstration of the technology, ITS representative



Emil Olbrich showed how a voice command, spoken into an LMR radio, was transmitted to OCTO's servers, routed via the Internet through a virtual private network to ISCO International servers hosting the BSI technology in Aurora, Ill., and back to Capitol Hill to a laptop with a wireless broadband card in about 600 to 800 milliseconds.

In a related demonstration, Olbrich demonstrated how the location of public safety workers, each with different GIS-enabled phones and radios, appeared on a computer-generated map depicting the area surrounding the Capitol building. Using unified communication technology and the ROW-B interface, it was a simple matter of clicking selected individuals represented on the map, and creating a group call almost instantly.

D.C. Deputy Fire Chief Demetrios Vlassopoulos, who represented OCTO at the demonstration, praised the potential of the system. He said he is looking forward to testing the system in the field to evaluate how it actually performs. The demonstration pilot will use the Washington, D.C., Regional Wide Broadband Network, a high speed, 700 MHz wireless broadband network ' currently the only one in the nation ' that covers 69 square miles of the District.

The ability of wireless carriers to maintain wireless broadband service during emergencies remains a major concern to officials like Vlassopoulos. Longer term funding for the project also remains unclear, he said. But ROW-B's capabilities to facilitate dynamic talk groups and locate responders in an emergency offer great appeal, he said.

#### **About the Author**

Wyatt Kash is editor in chief for Government Computer News.



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