

PSCR SEEKS GLOBAL SUPPORT FOR PUBLIC-SAFETY LTE

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With 20 MHz of contiguous 700 MHz spectrum and \$7 billion in federal funding, the United States is leading the development of public-safety LTE networks. But international support will be a key for the first-responder community to realize its vision of affordable devices that meet public-safety-specific needs, according to a Public Safety Communications Research (PSCR) official.

Efforts to develop a standards-based version of device-to-device communications, i.e., “direct mode,” into planned future releases of LTE—for both data and voice—is a prime example, according to Andrew Thiessen, PSCR’s standards and requirements lead.

Direct-mode capability—also known as “talkaround” in an LMR voice perspective—is used extensively by first responders, particularly by firefighters at the scene of an incident. While this is an important characteristic for first responders, it is not a priority for the commercial carriers that drive much of the LTE standards work, Thiessen said during a session at the Association of Public-Safety Communications Officials show last week.

“There are a lot of regulatory requirements globally that actually prevent a [user device] that’s operating on commercial spectrum from transmitting before it can receive something,” he said. “This very nature would prevent a carrier, even if they wanted a device-to-device capability, from actually doing it.”

While it’s possible for public safety to develop its own solutions, getting manufacturers to build devices that meet those specifications would make them more expensive, Thiessen said.

“If we wanted to do this from a public-safety-only perspective, we could do it,” he said. “But then, we’re right back at public safety being a niche market—even if it’s a global niche market—compared to the commercial ecosystem.”

PSCR is working hard to get the public-safety requirements included in the 3GPP’s LTE

standards work, Thiessen said. To do so, it has had to enlist help from international public-safety-communications organizations such as the TETRA Critical Communications Association (TETRA CCA), he said.

“We needed to show that this was more than a United States effort—that it was, in fact, a global public-safety LTE effort,” Thiessen said. “And the TETRA Critical Communications Association wrote a letter ... which said that, if 3GPP didn’t consider the device-to-device capability for public safety, it would negatively impact the TETRA CCA’s selection of LTE as a technology at all.

“We would not have been successful in getting public safety’s perspective on what is fundamentally a public-safety requirement but for the fact that we had global partners in public safety.”
