

PANEL: BROADBAND WILL NOT SUPPLANT LMR VOICE IN THE SHORT TERM

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Wireless broadband network technologies such as LTE hold considerable promise for public-safety personnel, but they will not be able to replace LMR systems for mission-critical voice in the near term, panelists said during a webinar on the subject that was conducted as part of the IWCE Virtual Trade Show yesterday.

As Congress contemplates legislation that would provide additional spectrum and billions of dollars in funding to support the deployment of a nationwide LTE network for first responders, many policymakers would like to see mission-critical voice and data communications for public safety be transmitted via the new broadband system. While mission-critical data delivery should be achievable with all public-safety LTE deployments, the same cannot be said about mission-critical voice, according to the panel.

Indeed, even commercial-grade voice over LTE is not expected to be implemented until 2013, according to Emil Olbrich, project leader for **NIST/OLES**. Of course, commercial voice over LTE is designed to provide voice services to commercial customers, not public-safety users who need features such as push to talk, extended battery life and the capability of operating in peer-to-peer talkaround mode when network infrastructure is unavailable.

With this in mind, public-safety representatives are working to get first-responder-specific features included in future versions of the LTE standard — a daunting task in a commercial-dominated environment, although some recent industry support has been encouraging, Olbrich said.

“Two years ago, I would have said we had no chance to get some of these things through [4G standards bodies],” Olbrich said. “The fact that it’s moving now — and relatively quickly — is good.”

Eventually, LTE is capable of meeting all of public safety’s requirements, but there are

significant questions whether it is economically feasible to deploy such broadband networks nationwide, said Dan Naylor, **Motorola Solutions** product manager for private broadband solutions.

“The technology can get there, and we can find a way to get there,” Naylor said. “But how to pay [for it] and how to implement it and what assures public safety that they can truly replace the jurisdictional services they have today in mission critical is going to be the key thing.”

This is especially true in rural areas, where deploying LTE sites and supporting back-haul may cost more than governments are able to spend, said Paul May, manager of system marketing for **Harris Public Safety and Professional Communications**.

“Ten years from now, I think we will see that there will be some very effective broadband deployments,” May said. “But, if I go to the [outlying areas], I will still see some of our LMR devices in the hands of users every day.”

With this in mind, May said public-safety entities should prepare to utilize both LMR and LTE networks for some time, while investing in systems that provide as much technological flexibility as possible.

“Look at networking technologies that provide you with ... multiple air-interface choices,” May said. “So, as you move down the path and say, ‘This particular air interface is not the one that I want to use five or 10 years from now,’ what capability do you have to move the rest of your installed infrastructure to some other type of air interface.

“I think the worst possible solution is to feel like you have to rip and replace [existing infrastructure]. That’s certainly not the path we’d like to see people go down.”