

Public Safety's Long-Term Evolution

Light Reading By Tim Kridel

April 10, 2015

By 2020, 63% of the world's population will be covered by LTE, and more than 30% of connections will use the technology, [the GSMA predicts](#). There's safety in those numbers -- literally.

Public-safety agencies worldwide have begun migrating away from proprietary mobile technologies, such as Terrestrial Trunked Radio/Trans-European Trunked Radio (TETRA) and P25, in favor of LTE. They aren't the only ones migrating to LTE, and that's a major reason for public safety's move: LTE offers an enormous vendor ecosystem and global cost structure precisely because so many other verticals are using it. Public safety benefits from scales of innovation and economy that it alone couldn't enable.

But as discussed in the new [Heavy Reading 4G/LTE Insider](#), "LTE for Public Safety: Don't Count on It," achieving those benefits will take time and money. A prime example is the US FirstNet network. Congress earmarked about \$7 billion of spectrum auction proceeds for FirstNet, but that won't be enough to achieve its goal of a network spanning all 50 states, the District of Columbia and five territories. "It's a huge delta between what the expectation levels are of the public-safety community and the money they have," one vendor says.

To shrink that delta, public safety will have to take a big-tent approach. One likely way is by accepting the overtures of utility companies, which argue that they should have access to public-safety networks, spectrum or both because they provide a vital service. In exchange for access, they would help support those networks. Possibilities include funding and/or providing access to infrastructure that could support basestation equipment.

"Utilities are perfect," says Sanjay Jahwar, Sonim Technologies VP and general manager of solutions, marketing and business development. "They have a lot of money. They have a lot of vertical assets they can share. They have a lot of backhaul they can share."

Another likely partner is mobile operators, many of whom covet FirstNet's 700MHz beachfront

spectrum. The big wild card is whether operators and FirstNet can develop a model that enables sharing in a way that operators and their customers don't find onerous. After all, in the wake of a hurricane, terrorist attack or other major disaster, people want to be able to use their mobile phone to get help and get information. Previous attempts at sharing suggest that FirstNet faces challenges in hammering out an agreement that everyone can live with.

Another option is for public-safety agencies to increase their use of commercial cellular networks, especially when LTE reaches the point that it covers 63% of the world's population. In some countries, that could be the primary way their agencies use LTE. In others, such as the US, commercial cellular could be a major adjunct. "We think the early part of this market will be devices that work on commercial carrier networks, are often sold by the public-safety sales teams of those carriers and are FirstNet-ready, [meaning] they can roam onto a Band 14 network," one vendor executive says.

The bottom line is that LTE is a good fit for public safety in terms of cost structure, innovation and capabilities. Implementing it is the big challenge.

[Link to Article](#)

[Link to Other News Articles](#)