The critical need for interoperability in emergency response

Interoperability makes effective communications and collaboration among public safety agencies possible.

On September 11, 2001, police and fire departments in New York City responded to the terrorist attacks on the World Trade Center. Over four hundred first responders were lost when the towers collapsed. Many of them were unable to hear the calls to evacuate, because the radio systems used by police and fire officials were not interoperable. The police and fire departments could not communicate with one another.

The events of 9/11 highlighted the need for improved and interoperable communications among first responders, and since then, significant progress has been made toward creating greater interoperability across agencies. A number of systems have been developed to help increase compatibility between public safety Land Mobile Radio (LMR) systems, enabling mission-critical voice communications between responders on different systems. More importantly, advanced LTE wireless broadband networks have evolved to help meet the expanding communication needs of public safety agencies.

The importance of interoperability

Interoperability, however, is more than just interconnecting different networks. It calls for uniform standards to help ensure that quality of service and priority and preemption capabilities are applied consistently across multiple networks. It connects users on LTE networks with users on LMR networks. And it requires push-to-talk and device-to-device capabilities to work effectively across all networks. Further, true interoperability absolutely means that public safety applications are accessible by all first responders, regardless of the network they use.

> "The public safety community in every state should expect offerings from all the major [wireless] carriers who want to compete. This is why it's so important that interoperability discussions remain network-neutral. This is why public safety applications remain network-neutral and multiplatform."
>
> —Red Grasso, Deputy Director of FirstNetNC and the single point of contact for North Carolina

Promoting cooperation between carriers to better serve first responders

Interoperability between commercial wireless networks isn't a revolutionary idea. Developing and implementing open standards and protocols is the way the wireless industry grew from a niche market that served relatively few wealthy consumers in the 1980s to the force behind today's information economy. It's also the fundamental premise upon which today's 4G LTE networks—and tomorrow's 5G networks—are based.

In 2018, Verizon made significant investments in its LTE network to support the efforts of first responders. We created a dedicated Responder Private Core, priority and preemption capabilities, and other advanced solutions specifically for public safety agencies. These investments in broadband public safety networks, combined with AT&T's implementation of the FirstNet® network, deliver tremendous benefits to first responders.

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However, all networks must include interoperability capabilities, to help ensure that first responders can effectively communicate with each other. Because that's what it's all about—helping the men and women in the field to do their jobs more safely and effectively.

Verizon will continue to invest in advanced communications networks, products and services built for public safety. And we're committed to working with the public safety community, other network operators and the entire wireless industry to promote an open and fully interoperable ecosystem that serves first responders.

The key requirements for interoperability

True interoperability across agencies requires:

• Uniform standards between networks

• Priority and preemption alignment across networks

• 4G LTE networks interconnecting with LMR systems

• Device-to-device communications across networks

• Nonproprietary and nonexclusive public safety applications available to all first responders

Learn more:

To learn more about how the Verizon network and our Response Ready solutions—like a dedicated first-responder core, mobile broadband priority and preemption—can support your agency's mission-critical wireless communication needs, visit verizon.com/publicsafety or contact your Verizon Wireless government account manager.

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