

FirstNet Enters a New Phase

Digital Communities By Colin Wood July 22, 2013

The country's first nationwide wireless broadband network designed for emergency responders, being developed by the First Responder Network Authority (FirstNet), entered a new phase on July 10 -- it announced 10 requests for information (RFIs) that will begin the process of finding the most efficient and innovative technology available, said Craig Farrill, FirstNet board member and acting CIO.

The search for the best technology available, Farrill said, follows a nationwide survey of the nation's 56 states and territories to determine what would constitute the "best" technology for the network -- technology such as network partnering and Radio Access Network provisioning, antenna systems, microwave backhaul equipment, data centers and network service platforms.

Because of the U.S.' diverse geography and large area, building a standardized but customizable network that meets the needs of many different organizations across the country is a huge undertaking, Farrill said. In fact, he said, FirstNet is attempting something that's not yet been done in this country, because all existing telecommunications networks were built by company mergers and acquisitions over many years. "No national network in the U.S. was built all at one time," he said. "So we're attempting to build a nationwide network all at one time. It is a very large-scale project." There are many vendors that would like to become part of the public safety world, he said, and he expects to see innovative ideas come to them from all over the world. But which vendors are chosen, he said, depends on their ability to meet FirstNet's primary goal. "Our aim is to bring a compelling wireless broadband service to law enforcement, fire and emergency medical that they're willing to purchase and pay for."

There is nothing today that would require any agency, organization or state to participate in FirstNet, but the goal, he said, is to make the offering so valuable and enticing that it wouldn't make sense not to use the network. "We've been studying all the requirements that have been brought forth by the industry over the past five years," he said, "and those requirements are driving the RFP and RFI process here for us."

Farrill offered up Alaska as one example -- it has roads covered in snow and ice eight months of the year -- while the Virgin Islands presents a different set of challenges for the network. There's flooding, earthquakes, tornadoes and large events like NASCAR that could be targets of terrorist attacks -- all challenges that the nation's wide geographic range covers, and must be addressed by the technology vendors that FirstNet use, he said.

The "listening tour," during which time FirstNet learned from the states and territories what they wanted from their network, will continue through the RFI process and the future, he said, because there's a lot of work yet to be done.

With nearly a half-million sites around the country that the network could choose from as FirstNet continues its buildout, there will be many factors to consider, Farrill said. Seven regional wireless connectivity projects [will serve](#) as preliminary test sites for the network, and new sites will be integrated into the design as the project continues. Regions with existing communications networks could be integrated into the design, Farrill said -- it just depends on

whether it makes sense in that area. FirstNet will seek to integrate existing assets “to the extent they help optimize the service and extend the service and reduce the cost of the service,” he said.

Farrill highlighted his past experience deploying nationwide networks in other countries, such as in Germany, Australia, China and India. “This is one of the largest communications projects ever attempted in the U.S.,” he said, but maintained that FirstNet’s place on the timeline left him feeling confident in success as the organization moves forward.

The RFIs are composed of two categories: radio access network equipment and core network equipment. Radio access network includes core components and the antenna systems, microwave backhaul, deployables and satellite services needed to support that equipment. The core network equipment includes RFIs for enhanced packet core, transmission and transport of data, data centers, network operations center and network service platform.

FirstNet, which is an independent authority under the National Telecommunications and Information Administration, was first established in 2012. [Link to Article](#) [Link to Digital Communities News Articles](#)