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FirstNet's Nationwide Public Safety Broadband Network Moves Forward

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Related Author

- Lennard G. Kruger

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Lennard G. Kruger, Specialist in Science and Technology Policy (lkruger@crs.loc.gov, 7-7070)

On March 30, 2017, FirstNet announced a public-private partnership with AT&T to build a dedicated interoperable wireless broadband network for use by public safety agencies nationwide. Under terms of the 25-year agreement, FirstNet will provide AT&T with up to $6.5 billion for initial network construction over the next five years. Additionally, AT&T will spend about $40 billion of its own funds to build, operate, and maintain the network over the life of the contract. To conduct the buildout, AT&T has assembled a team including Motorola Solutions, General Dynamics, Sapient Consulting, Inmarsat Government, and others.

While first responders will have priority and pre-emption access over the FirstNet network, AT&T will be able to monetize the excess network capacity to secondary commercial users. In exchange, AT&T will make annual lease payments to FirstNet, totaling at least $5.625 billion over the period of the contract. Additional penalty payments to FirstNet are possible, depending on AT&T's ability to meet contractual and public safety adoption targets.

Announcement of the FirstNet contract had been on hold since last fall, when one of the contract bidders, Rivada Mercury, filed a motion in the U.S. Court of Federal Claims challenging Rivada's elimination from consideration as a potential FirstNet contractor partner. On March 17, 2017, the court denied Rivada's protest motion, thus allowing the award announcement to proceed.

What Is FirstNet?

Reflecting concerns over public safety communications challenges faced during the September 11 attacks and other incidents, the First Responder Network Authority, commonly known as FirstNet, was created by Congress in Title VI (Spectrum Act) of the Middle Class Tax Relief and Job Creation Act of 2012 (P.L. 112-96). The law allocated $7 billion from the Public Safety Trust Fund to finance the buildout of a Nationwide Public Safety Broadband Network (NPSBN). Monies in the Public Safety Trust Fund were derived from the H block and AWS-3 spectrum auction, which raised over $40 billion.

Congress established FirstNet as an independent authority within the National Telecommunications and Information Administration (NTIA) of the Department of Commerce. FirstNet is governed by a 15-member Board of Directors

composed of representatives from public safety agencies, government, and the wireless industry. P.L. 112-96 allocated a total of 20 MHz of radio frequency spectrum to FirstNet: 10 MHz in the 700 MHz band as identified in the Spectrum Act, plus 10 MHz previously assigned to states by the FCC for public safety use.

FirstNet's goal is for the network to be substantially in operation by 2022, providing service to 60,000 public safety agencies in rural, suburban, and urban areas, spanning 3,144 counties and 567 federally recognized tribal areas. Public safety entities and individuals will have the opportunity to subscribe to FirstNet services, with user fees required to be reinvested for constructing, maintaining, operating, or improving the network. When operational, the NPSBN is expected to allow public safety users to seamlessly connect to other agencies and jurisdictions as an emergency unfolds. First responders will be able to send videos, blueprints, medical images, and other types of high-speed mission critical data over a dedicated interoperable wireless network, as well as access non-mission critical voice services. Currently, first responders use land mobile radio (LMR) over a variety of frequencies for mission critical voice applications such as instantaneous push-to-talk and group calling. When FirstNet becomes operational, first responders will continue to use LMR for mission critical voice applications until technological standards can be fully adopted so that the network (and the devices that use that network) become capable of handling those mission critical voice applications.

P.L. 112-96 requires that FirstNet deploy its network using fourth-generation LTE wireless technology. FirstNet, working with AT&T, will deploy a nationwide "core network" that will connect with Radio Access Networks (RANs) in each state, territory, and the District of Columbia. The RAN will consist of radio base station infrastructure that connects to user devices, and may include cell towers as well as mobile hotspots embedded in vehicles that connect to the core network over satellite or other types of wireless infrastructure.

What Happens Next?

With the signing of the contract, three "Day 1" task orders were initiated. First, AT&T must deploy and operate a core network. Second, AT&T will develop a portal for states and territories to access their specific RAN plans. And third, within six months of March 30, FirstNet and AT&T are required to submit plans to 56 states, territories, and the District of Columbia for how the RAN will be deployed (including costs and coverage) within each state or territory. The plans will reflect FirstNet's previous and ongoing consultation with states, territories, tribes, and localities. Each governor then has 90 days to either support the FirstNet proposed RAN plan (opt in) or opt out. If a state opts in, FirstNet and AT&T will fund, deploy, operate, upgrade, and maintain the state RAN. If a state decides to opt out, it has 180 days to submit an alternative plan to contract with a private partner to deploy, operate, and maintain its own RAN, which must interconnect with the FirstNet national core network. Opt-out state plans must be approved by the FCC and NTIA for interoperability, security, financial sustainability, coverage, timelines, and quality of service. Specifically, opt-out states must apply to and be approved by the FCC to build a state RAN, must apply to NTIA to be granted the ability to sign a spectrum management lease agreement from FirstNet for spectrum capacity, and may apply to NTIA for proportionate RAN construction grant funding. Opt-out states will assume the technical, operational, and financial risks and responsibilities related to building their own RAN.

FirstNet expects to deliver draft state plans in the summer of 2017, with final plans to follow as soon as the fall of 2017. With FirstNet now taking a major step forward, the 115th Congress is expected to closely monitor the roll-out of the network, both at the national and state level.