

# State of New Hampshire

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December 4, 2017


Chairman Marsha Blackburn  
Subcommittee on Communications and Technology  
Congress of the United States  
House of Representatives  
Committee on Energy and Commerce  
2125 Rayburn House Office Building  
Washington, DC 20515-6115

Dear Chairman Blackburn,

Pursuant to the Rules of the Committee on Energy and Commerce, I submit the following answers to the questions presented by The Honorable Peter Welch. I trust my testimony, written statement, and now the answers to the questions provided, afford some insight to the challenges faced by states that are performing nothing more than their "due diligence" regarding a first responder wireless broadband network in accordance with the First Responder Network Authority (FirstNet).

If there is any further information I can provide, please don't hesitate to contact me. I wish to thank you for the invitation and the opportunity to speak before your committee.

Sincerely,



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## **Additional Questions for the Record**

**From: The Honorable Peter Welch**

- 1. What are the advantages that the State of New Hampshire has identified in potentially Opting-out, building and managing a state RAN in partnership with a carrier, integrator?**

The alternative plan for the State of New Hampshire will construct a purpose-built, public safety grade statewide network covering 99.9% of the population and 97% of the territory with a cost projection of \$0.01 per/month, per/device for all tier #1 first responders statewide. Capital investment costs pertaining to infrastructure development will be borne by the vendor throughout the life of the contract, supported by security and performance bonds to insure the feasibility and sustainability of the network. The governance model created will promote true local control of the network providing guidance for reinvestment for next generation technology over the life of the 25 year vendor driven contract, based on conservative projections of the sale of excess spectrum. A dedicated network specifically designed for first responders statewide will create residual benefits for broadband connectivity for communities throughout the state that will have a direct correlation to an overall and significant economic benefit to the state.

The public/private partnership that has been created with the State of New Hampshire and Rivada Networks will provide a platform of comprehensive interoperability, through neutral carriers, that will allow public safety to operate in a secure environment. We have no greater purpose, than to equip our first responders with the necessary and most advanced communications tools to enable them to provide our citizens with the highest degree of service.

- 2. Does Rivada have partners and teaming members that have wireless operating experience?**

The New Hampshire/Rivada First responder Network will feature a comprehensive, end-to-end architecture. Strategic suppliers will be instrumental in establishing and operating the public safety LTE RAN network. Back-up solutions will be critical to a well-established dual sourcing approach. So, should cost, performance, or reliability of a given supplier come into question there can be a smooth pivot to a pre-defined backup/replacement partner already engaged at a defined level within the project. This approach assures good local support to boost the New Hampshire ecosystem and economy, while ensuring world class end-to-end quality across the entire project. Multiple suppliers have been identified in each of the caveats listed;

- RAN Equipment Vendors
- Infrastructure Vendors
- Backhaul Services Vendors

- Roaming Network Vendors
- Network Development Partners
- Network Operating Partners
- State, County, and local Partners

Rivada Networks has partnered with US Cellular, and as recently as this past week with Macquarie Capital, who will incorporate and develop their telecommunications assets throughout the state. They will use hardware from wireless infrastructure leaders including Fujitsu, Ericsson, and Nokia. Among their network development partners is Black & Veatch who will oversee end-to-end site development services. The experience and knowledge that has and will continue to be provided by Rivada Networks is unparalleled and New Hampshire has every confidence that a dedicated network for first responders statewide will grow and prosper as next generation communications technology becomes available.

**3. Does Rivada have partners and teaming members that operate wireless networks today? Has this influenced your views on the reliability of partnering with Rivada?**

Rivada has partnered with US Cellular which owns and operates the fifth-largest wireless telecommunications network in the US. Rivada Networks as of this week has partnered with Macquarie Capital, who will provide extensive global expertise as a premier developer of infrastructure assets. Rivada Networks Board Members have personal experience and possess the knowledge and expertise with disaster recovery directly as Governors and other senior officials. Rivada Network Executives and personnel have years of experience deploying 4G LTE networks as major wireless operators and equipment vendors and possess the required diversity and proficiency to grow with next generation technology. The entire Rivada Networks team understands the issues faced by public safety pertaining to priority preemption and represent a company that has not only identified the problems, but has offered solutions in a manner unequalled to public safety. We have full confidence in the leadership and expertise of the Rivada Networks team, and we anticipate a full and complete statewide application to FirstNet.

**4. Has FirstNet reached out to you to help assist you in any effort to Opt-out or have they only pushed Opt-in solutions? Please describe. Has FirstNet suggested that penalties and the process would be too hard to do an Opt-out?**

There is little doubt that FirstNet has pushed hard for states to opt-in. The challenges put in front of states who are considering an opt-out decision are onerous and purposely intimidating, which is emphasized by FirstNet/AT&T consistently warning against the inherent risk. The decision for New Hampshire to move forward with an RFP when we did was representative of the arduous process that FirstNet was forecasting. The 90/180 day rule was from the beginning impractical and unrealistic to think that a state could accomplish all the necessary tasks required within that prescribed period of time. Coupled with the fact that we understood that there would be underserved areas of the country, it was to our benefit to investigate only what the

law allowed. Since New Hampshire attracted the attention of the industry, it appears that the Rules and Procedures for states considering an opt-out scenario have become even more strenuous and demanding. When FirstNet proposed over \$600,000,000 in termination penalties, spectrum fees totaling tens of millions of dollars, adoption disincentive payments, and adoption payments at 5 and 20 years, it was pretty clear that FirstNet was intent to make the penalties, fees and process as difficult as possible.

FirstNet however, has recently provided information that the SMLA termination fees will be subject to negotiation, as stated by Firstnet's CEO Michael Poth at the Congressional Hearing and again before New Hampshire's Opt-out Review Committee on November 21<sup>st</sup>, 2017. They have also stated their commitment to work with the State of New Hampshire in the event of an opt-out decision, to ensure our network is successful.

**5. Can you expand on Rivada Networks public safety communications experience and why you believe it is an appropriate fit for a State who Opt-out?**

Rivada Networks was formed in the wake of September 11th with a focus on developing solutions for interoperable public safety communications. Our experience with Rivada Networks has been entirely consistent with that history. Rivada Networks has a patent portfolio that exceeds 100 patents. They have developed eLBS patents which bring accuracy and precision to pinpointing a phone's location. This was developed specifically to address the situational awareness challenges in emergency situations by providing accurate 3D positioning, and map exact locations of wireless infrastructure which addresses some of the most critical needs of public safety. This technology improves accuracy in the vertical dimension, often referred to as the "Z-axis". The sustainable network solution Rivada Networks provided to New Hampshire successfully addressed all of our concerns. We would encourage every state to do their due diligence and put forth an RFP to explore their options.

**6. How would you characterize Rivada's responsiveness to your specific State needs in New Hampshire? Can you speak to how this has helped or hindered the decision-making process in New Hampshire?**

Rivada Networks has committed a tremendous number of man hours, including travel costs for a host of executives, with bi-weekly in-state meetings over the past 15 months working with state leadership. They have traveled with us throughout the state speaking to first responders, industry, business leaders and local communities to gather a true understanding of their individual needs and adjusting the alternative state plan based on those requirements. Rivada Networks has been responsive to all of our requests for information, and to the concerns we have expressed about the complexities of building a wireless broadband network. What has developed over the past year-and-a-half is a plan that truly works for New Hampshire and is representative of our needs. Having this alternative plan in place to compare against the FirstNet plan helped immensely with our evaluation process, which ultimately lead to the SIEC's

Data Communications Working Group and the overall Statewide Interoperability Committee to recommend a unanimous Opt-out decision. The recommendation to "Opt-out" was provided to Governor Sununu on October 6<sup>th</sup>, 2017.