

BEFORE THE  
**FIRST RESPONDER NETWORK AUTHORITY**

*Proposed Interpretations of Parts of  
the Middle Class Tax Relief and Job  
Creation Act of 2012*

Dkt. No. 140821696-4696-01

**COMMENTS OF THE STATE OF MINNESOTA**

The State of Minnesota, the Statewide Emergency Communications Board (SECB), and its respective stakeholders are pleased to provide its response to FirstNet’s *Proposed Interpretations of Parts of the Middle Class Tax Relief and Job Creation Act of 2012* (“Public Notice”) dated September 24, 2014. We feel that this Public Notice is an excellent opportunity to advance the state consultation process by soliciting feedback from the public, government organizations, service providers, vendors and academia.

**About Minnesota**

Minnesota’s population of 5,420,380 is approximately 71% urban according to the United States Census Bureau.<sup>1</sup> Only a very small percentage of the state’s geography of 86,939 square miles is considered “urban.” In Minnesota and many other markets, the nationwide public safety broadband network (“NPSBN”) faces a significant business challenge in meeting public safety needs for comprehensive coverage while making the business case for providing service everywhere. For population distribution and urban/rural classification, see Figure 1 and Figure 2 below.<sup>2</sup>

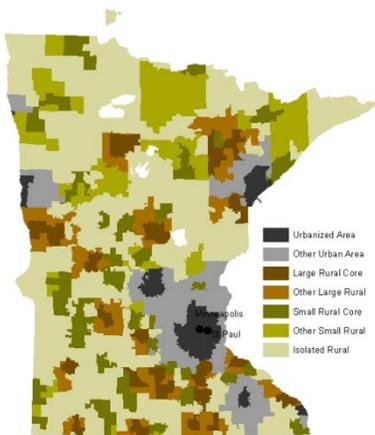


Figure 1: Urban-Rural Classification in Minnesota

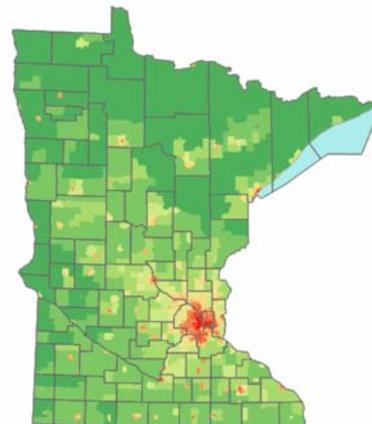


Figure 2: Population Distribution in Minnesota

<sup>1</sup> See <http://www.census.gov/compendia/statab/2012/tables/12s0029.xls>

<sup>2</sup> Figures 2 and 3 are from <http://en.wikipedia.org/wiki/Minnesota; data from 20120 Census.>



The geography of the State of Minnesota incorporates broad rural areas of farmland and dense forest together with dense metropolitan areas, a variety of mid-sized and small cities, and 11 federally recognized tribal governments. We share an extensive unprotected international border with Canada. The port city of Duluth is the world's largest inland port. With its wide variety of geography types, population densities, governmental structures and uninhabited areas, Minnesota represents a microcosm of the diverse challenges FirstNet faces in designing and deploying the wireless broadband network across the nation.

## Implications of the Public Notice

We note that specific interpretations of the Act have far-reaching impacts on FirstNet and State obligations and responsibilities for network build-out, operations and maintenance. The most significant of these impacts are as follows:

- **The scope of FirstNet's build-out and service obligation**, specifically, with regards to how the definition of "rural", and FirstNet's responsibility under the Act to provide service to "rural" areas with substantial rural coverage milestones. In particular, FirstNet's proposed third category, "wilderness" or "frontier" as distinct from "rural," may limit FirstNet's obligation to provide any service in certain markets.
- **Who may access the network**. FirstNet proposes to declare that it can provide service to effectively any party by marketing directly to public safety and government, to and through Opt-out States, and through third parties in covered leasing agreements.
- **Who is considered "public safety,"** and accordingly, who has primary rights to use the network and pre-emptive access.
- **Operational management of the network**, specifically, which parties have control over assigning and configuring access, assignment of priority, and enforcing compliance to standards on the network.
- **Demarcation points**, specifically, those of FirstNet, Opt-out States, third party partners through covered leasing agreements, and vendor and public safety entity enterprise networks.
- **Lifecycle management obligations**, including FirstNet and Opt-out State obligations to build, upgrade, and maintain the network.

## Key Points:

The following key points call out our responses to the issues contained within the public notice that contributors to this filing agreed were the most important:

- **We object to FirstNet's proposed definition of "rural" and to FirstNet's proposed classifications for "frontier and wilderness."** FirstNet seeks to define "rural" areas in such a manner that would limit the area that is considered rural and could, in effect, reduce FirstNet's obligation to ensure build-out and coverage milestones across vast geographies of the country, including **42 Indian reservations**, one entire state, the majority of three additional states, and a large portion of Minnesota. See pp. 4-6 of our filing.
- **Universal coverage, including coverage in non-urban areas, is going to be a key factor to adoption in Minnesota and nationwide.** Each state should develop specific rural build-out



milestones as part of its requirements for FirstNet, and FirstNet and the state must agree to these milestones throughout the consultation process. Otherwise, FirstNet is not likely to receive approval from the states for FirstNet's implementation plans.

- **FirstNet's service will materially benefit from state and regional governance structures having a substantive role in managing and authorizing access to the network.** We make this observation based on our experience with statewide and regional governance and its role in managing access to communications systems including land mobile radio systems. See pp. 8-9 of our filing.
- **We recommend that FirstNet remove "device services" and "all other network elements and functions other than the radio access network" from its definition of the core network.** This definition is contrary to the provisions of the Act and is far too expansive. In particular, we are concerned that FirstNet would consider application servers that support device services as part of the core network owned and operated by FirstNet, and that such network architecture would inhibit interoperability, negatively affect the quality of the service, and stifle potential innovations in the vendor community. See pp. 11-13 of our filing.
- **We strongly support FirstNet's interpretation for a single nationwide core that is constructed and operated by FirstNet.** Not only is this interpretation consistent with the provisions of the Act, it allows for the highest level of interoperability in next-generation communications for public safety. See pg. 13 of our filing.
- **FirstNet needs to ensure that users have the same service and experience everywhere they go, regardless of whether they are in their home state, a foreign state, an opt-out or an opt-in state.** The network experience must be seamless in order to facilitate mutual aid during major, multi-agency incidents. See pg. 12 of our filing.

## ISSUES:

### Definition of “Rural”

**We believe the proposed definition of “rural” areas and the separate category “wilderness” or “frontier” areas could limit FirstNet’s milestone obligation in a way that would undermine the State consultation process and ultimately fail to meet our needs.** FirstNet is required under the Act to include “deployment phases with *substantial* rural coverage milestones.”<sup>3</sup> We believe that FirstNet’s definition of rural areas, and its contemplated third category “frontier,” may *exclude* from rural milestones much of the geography of the state of Minnesota and many other states outside of the east and west coasts of the country. This definition would be contrary to the spirit of the law to provide “*substantial* rural coverage milestones.”

**FirstNet’s proposed definition contributes to ongoing issues with Federal rural development programs** that prevent rural governments from taking a holistic approach to use of Federal Rural Development funds due to a lack of common requirements. FirstNet has chosen and suggests modifying<sup>4</sup> one of over 40 competing definitions of “rural” that exist in Federal Rural Development programs alone,<sup>5</sup> effectively introducing another new definition that would limit FirstNet’s obligation to provide substantial coverage milestones in nonurban areas.

Valid, competing definitions for “rural” areas in Federal Rural Development programs have use metrics including, but not limited to:

- Population density
  - Based on political jurisdiction or administrative division (*e.g.*, city, county, or census block)
  - Specifically determined areas (*e.g.*, the Empowerment Zones and Enterprise Communities Program which specifies no area greater than 1,000 sq. mi. that does not exceed 30,000 people in population)
- Any area outside the boundaries of a city of certain population (most common benchmarks include 20,000 people for housing programs and 50,000 people for energy programs)
  - Any area outside the boundaries of a city of a certain population and the “urbanized” (generally, no metric given) areas contiguous to that city
- Specific States (*e.g.*, FY 2001, 2004 Processing Labor Demo Housing Grants Program)
- An area that lacks internet service at 5 Mbps upstream and downstream
- An area determined to be “rural in character” by the Secretary of Agriculture<sup>6</sup>

<sup>3</sup> Act, Sec. 6202(b)(3) (emphasis added).

<sup>4</sup> 79 FR 57064. FirstNet adopts the Rural Electrification Act’s definition but considers excluding from “rural” any area that meets a new classification designated “wilderness” or Frontier”.

<sup>5</sup> 2013 U.S. Department of Agriculture Rural Development Report on the Definition of Rural, pp. 23-77.

<sup>6</sup> *Id.* These metrics taken from the USDA report’s summaries.

The Rural Electrification Act, which FirstNet references for its source of the definition of “rural”, deviates from a default definition of “rural” introduced in the 2008 Farm Bill<sup>7</sup> which was intended to eliminate inconsistency in defining the term “rural” for federal rural development programs:

*‘(A) IN GENERAL.—Subject to subparagraphs (B) through (G), the terms ‘rural’ and ‘rural area’ mean any area other than—  
‘(i) a city or town that has a population of greater than 50,000 inhabitants;  
And ‘(ii) any urbanized area contiguous and adjacent to a city or town described in clause (i).*

This definition identifies a “rural area” as any area outside or non-contiguous to a city or town of 50,000 people. According to this definition 100% of areas are either “urban”, “urbanized”, or “rural”, including remote and protected areas such as state and national parks and tribal lands. Using this definition, **FirstNet has an obligation to provide significant rural build-out milestones for 100% of “non-urban” and “non-urbanized” areas, subject to that State’s milestone requirements identified in the State and FirstNet consultation process.**

**FirstNet’s proposed “wilderness” or “frontier” area designation may substantially limit FirstNet’s obligation in a way that would undermine the state consultation process.** FirstNet also considers whether to define as a “frontier” area as any area with a population of less than five people per square mile.<sup>8</sup> If FirstNet were to do so, it would categorically exclude from rural build-out milestones at least one entire state, the majority or large portions of several other states, and more than 13% of the nation’s Indian reservations.<sup>9</sup> Following is a list of some areas that would qualify as “frontier” areas that would not be subject to FirstNet’s “rural” build-out milestones:

- **The entire State of Alaska** (average population density statewide of 1.3 people/sq. mi)
- Nearly the entire state of Wyoming (42 of 56 counties potentially qualifying as “frontier” with average population density statewide of 6.0 people/sq. mi)
- Most of the state of North Dakota (35 of 53 counties potentially qualifying as “frontier” with average population density statewide of 10.5 people)
- Over half of the state of Montana (14 of 23 counties potentially qualifying as “frontier” with average population density statewide of 7.0 people/sq. mi)
- Nearly half of South Dakota (31 of 66 counties potentially qualifying as “frontier” with average population density statewide of 11.1 people/sq. mi)
- Five entire counties in Minnesota including Koochiching, Kittson, Lake, Lake of the Woods and Cook Counties (based on average population density).
- **42 Indian Reservations** including Red Lake and Bois Forte Reservations in Minnesota.<sup>10</sup>

<sup>7</sup> 2008 Farm Bill at 6108(a)(13).

<sup>8</sup> 79 FR 57064.

<sup>9</sup> See, US Bureau of Indian Affairs Frequently Asked Questions at <http://www.bia.gov/FAQs/>. Note that the BIA counts “approximately” 326 Indian Reservations, while most publicly-available sources count 310.

<sup>10</sup> This list references various figures from US Census 2010 data.



In light of the challenges of finding a single rural build-out milestone to apply nationwide, FirstNet should leave determination of each State’s rural build-out milestones to the State. Each State’s rural and non-rural areas include 100% of the state’s geography. The order and schedule for rural deployment is a critical part of a State’s requirements, and it is the state’s responsibility—not FirstNet’s—to define each state’s requirements. This approach is consistent with the State and Local Implementation Grant Program (SLIGP), under which each State will develop its own coverage needs and user requirements.<sup>11</sup>

This approach is also consistent with the Act. The Act does not specify how FirstNet must arrive at its definition of “rural” or the milestones it applies to rural and nonurban build-out, other than that it must consult with States.<sup>12</sup> The Act does not require that such definition and milestones must be the same in each State. **If each State specifies the deployment plan for the State, accommodating rural and nonurban areas as it sees fit**, FirstNet may endorse that plan and adopt it in the form of “deployment phases with substantial rural coverage milestones”<sup>13</sup> that accommodate the State-specified plan.

## Eligibility to Use the Network

We agree with FirstNet’s preliminary conclusions that the Act does not expressly preclude any group of users and grants FirstNet discretion to consider a broad range of users within its mission;<sup>14</sup> these conclusions are consistent with both the letter of the Act as well as the policy mandate that the network be financially self-sustaining.<sup>15</sup> Without the ability to serve a broad base of users, FirstNet cannot hope to accomplish sustainability. As more fully developed below, however, **the drive to generate revenues must not hamper access to the network for public safety purposes**. The NPSBN is for public safety, and it must always be available for public safety communications.

### Public Safety Entities

The overriding theme of FirstNet’s preliminary conclusions in the Notice with regard to “public safety entities” is that that **the term encompasses a broad array of people and entities**, enabling FirstNet to serve them as users of the NPSBN in other than a “secondary” capacity and without need of a “covered leasing agreement.” We generally support that direction with the caveats that (1) State and local incident command must always control prioritization and preemption among those public safety users, and (2) non-public safety users are secondary users and gain access to the network only when there is excess capacity not needed by public safety entities. Minnesota urges FirstNet to empower the statewide governance structure to work with its State and local public safety agencies to ensure appropriate prioritization assignments.

### “Public Safety Services”

Minnesota concurs with FirstNet’s preliminary conclusion that a “public safety entity” under the Act must *either* provide (1) “public safety services”, as that term is defined in section 337(f) of the Communications Act of 1934 *or* (2) “services provided by emergency response providers”, as that term is defined in section 2 of the Homeland Security Act of 2002—it need not do both.<sup>16</sup> A contrary

<sup>11</sup> See FFO at pg. 3

<sup>12</sup> Act, Sec. 6206(c)(2).

<sup>13</sup> Act, Sec. 6206(b)(3).

<sup>14</sup> 79 FR 57060.

<sup>15</sup> Act, Sec. 6208(b).

<sup>16</sup> 79 FR 57061.



interpretation would require an unreasonable reading of the phrase “and includes services provided by emergency response providers, as that term is defined in section 2 of the Homeland Security Act of 2002.”<sup>17</sup>

### Transportation and Transit

Of the four types of entities FirstNet highlights as being included by the Federal Communications Commission (“FCC”) within the scope of “public safety service” providers under Sec. 337(f) of the Communications Act, we underscore particularly the importance of the second: transportation and transit departments.<sup>18</sup> Whether transportation and transit are “public safety entities” under the Communications Act or the Homeland Security Act—and we believe they fit under both—

**Transportation and Transit Departments must be considered “public safety entities” that may be prioritized for access to the network in an emergency.**

Transit Departments execute the movement of enormous numbers of people in evacuation scenarios. For example, City of Duluth Transit is an integral part of the emergency response team, and provides buses to serve as shelters or to evacuate residents. In 1992, Duluth Transit assisted in evacuating 50,000 people from the city in response to a major benzene spill near Lake Superior.<sup>19</sup> Fargo and Moorhead Transit also served a critical evacuation function in the 2009 Red River flood in the Red River Valley in the Fargo-Moorhead region.<sup>20</sup> Similarly, while corrections officials may not require prioritized access for most incidents, they are nonetheless public safety users that may, in a prison riot incident, for example, require prioritized access.

Transportation departments maintain roadways and other underlying transportation infrastructure, provide safety signage and otherwise facilitate safe travel. During an emergency such as a mass evacuation, transportation departments play a pivotal role in managing traffic and roadways and deploying emergency signage.

### Non-Traditional and Occasional Public Safety Entities

We stress the importance of the fourth category of entity addressed in the FCC interpretation: “Entities protecting the safety of animals, homes, and city infrastructure, particularly in crisis situations.”<sup>21</sup> Specifically, we acknowledge the frequency with which electric and other utility workers are called upon in an emergency to protect lives and property. Such **utilities certainly provide “public safety services” and should be considered “public safety entities” under the Act.** Utilities require reliable telecommunications systems to keep the public safe during disasters (downed power lines, gas leaks, etc.) as well as day-to-day operations (including low-bandwidth SCADA systems). Indeed, all public safety telecommunications systems require electricity, including current public safety land mobile radio systems, air traffic control systems, security systems, and the future NPSBN.

Though the FCC’s interpretation by its terms applies only to governmental entities and so may be read to cover only municipal utilities, a utility’s ownership or corporate structure does not lessen the

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<sup>17</sup> 47 U.S.C. 1401(27).

<sup>18</sup> 79 FR 57061.

<sup>19</sup> Media report: <http://www.nytimes.com/1992/07/01/us/50000-flee-toxic-vapors-released-as-train-derails.html>

<sup>20</sup> Media report: [http://www.mprnews.org/story/2009/03/27/red\\_river\\_flood](http://www.mprnews.org/story/2009/03/27/red_river_flood)

<sup>21</sup> *Id.*



importance of its emergency response function. As described below, the State believes nongovernmental entities (such as cooperative and investor-owned utilities) supporting emergency response are public safety entities under FirstNet’s preliminary interpretation of the scope of Section 2 of the Homeland Security Act.

### Authorization of Non-Governmental Users

The Notice seeks input on “which governmental entities may authorize non-governmental organizations to provide public safety services” within the “primary mission” limitation of Sec. 337(f). The State suggests that this inquiry is unnecessary: by FirstNet’s preliminary interpretation of the Homeland Security Act—which the State supports—virtually any nongovernmental organization that provides “emergency response provider” services would be a “public safety entity” under the Act, regardless of whether it was “authorized by a governmental entity whose primary purpose is the provision” of public safety services.<sup>22</sup> Specifically, FirstNet preliminarily concludes that the Homeland Security Act includes among public safety entities:

Personnel, agencies, and authorities providing support to Federal, State, and local governmental and nongovernmental emergency public safety, fire, law enforcement, emergency response, emergency medical (including hospital emergency facilities) personnel, agencies, and authorities.<sup>23</sup>

It is difficult to imagine a case where a “nongovernmental organization[] that [is] authorized by a governmental entity whose primary mission is the provision of such services” does not also fit the above definition. Thus, as interpreted in the Notice, **the Homeland Security Act seems to subsume the Communications Act.**

### Statewide Governance Structures and Lessons from the ARMER Program

**FirstNet should empower statewide governance structures to determine access rights to the NPSBN, and should require that a State has a statewide governance structure before presenting the state plan.** Requiring that a State has established an effective governance structure prior to consultation is consistent with state conditions for accepting funds under SLIGP, which requires States to “have established a governance structure to consult with FirstNet.”<sup>24</sup> It is reasonable for FirstNet to assume that states will complete their obligations under SLIGP, which requires states to establish or have established a governance structure, and it is therefore reasonable for FirstNet to require the states it consults with to be represented by a governance structure.

The ARMER program<sup>25</sup> and Statewide Emergency Communications Board<sup>26</sup> management of non-traditional entity access to the system serve as excellent examples of statewide governance’s ability to

<sup>22</sup> *Id.*, 79 FR 57062.

<sup>23</sup> 79 FR 57602.

<sup>24</sup> See State and Local Implementation Grant Program, Notice of Federal Funding Opportunity (“FFO”) at 2: “Throughout the grant period of performance, NTIA will require recipients to show that they are on track to accomplish the following activities by the end of that period: (1) **established a governance structure, or expanded existing structures, to consult with FirstNet** [ . . . ]”; emphasis added.

<sup>25</sup> Statewide Trunked Project-25 Land Mobile Radio Network operating throughout the state of Minnesota. More information at <https://dps.mn.gov/divisions/ecn/programs/armed/Pages/default.aspx>



manage access to a public safety network similar in purpose, size and scope to the future NPSBN in Minnesota. The Minnesota ARMER system allows non-governmental and entities that are not traditional public safety to access the system under a variety of scenarios and serves as an excellent example to FirstNet of how a governance structure may manage non-governmental access to the system.

The Statewide Emergency Communications Board is bolstered by Regional Emergency Communications Boards which perform a similar function to the statewide board, but can adopt more (never less) stringent policies, and advise and consult with the statewide board. The relationship between the Statewide and Regional boards is analogous to the relationship between FirstNet and the Statewide Emergency Communications Board.

### *Non-Traditional Public Safety Partners on ARMER*

For the purposes of ensuring seamless and effective communications between disparate public safety entities, a variety of non-traditional public safety organizations are allowed access to ARMER without penalty including, but not limited to:

- Public transit
- Transportation
- Maintenance
- Parks and recreation
- Non-governmental and private, and non-profit and for-profit organizations<sup>27</sup> such as:
  - Health care institutions
  - Ambulance companies
  - Independent firefighting corporations
  - Hospitals
- Non-government disaster relief and aid organizations,<sup>28</sup> including:
  - American Red Cross
  - Salvation Army
- Educational Institutions
  - Training and credentialing programs<sup>29</sup>
  - Universities
  - School Districts

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<sup>26</sup> The Minnesota Statewide Emergency Communications Board and Regional Communications Boards are responsible for management of the ARMER system, communications standards in Minnesota, the State and FirstNet Consultation and a variety of other public safety communications issues. More information at <https://dps.mn.gov/entity/srb/Pages/default.aspx>

<sup>27</sup> ARMER Standard 5.4.0 at <https://dps.mn.gov/divisions/ecn/programs/armer/Documents/standard540.pdf>

<sup>28</sup> ARMER Standard 5.2.0 at <https://dps.mn.gov/divisions/ecn/programs/armer/Documents/standard520.pdf>

<sup>29</sup> ARMER Standard 5.6.0 at <https://dps.mn.gov/divisions/ecn/programs/armer/Documents/standard560.pdf>



- Members of the media on a “read-only” basis<sup>30</sup>
- US National Weather Service to interoperate with PSAPs during major weather events<sup>31</sup>
- Railroads
- Mining Companies

In each of these cases, a multi-jurisdictional, statewide and inter-regional governance structure including the Statewide Emergency Communications Board and Regional Communications Boards carefully reviewed the justification for providing the given entity access to the system. The governance structure discussed impacts and developed a procedure for managing the access and vetted that procedure with the stakeholder community. Furthermore, every device on the network—without exception—is configured in such a way that it can seamlessly connect with any other device on the network and every user of the system without special effort.<sup>32</sup>

### *Managing Access through a Governance Structure*

FirstNet provides a broad and inclusive definition of public safety, but does not define a mechanism for reviewing access requests to the network. We propose that FirstNet defers these requests to governance structures. An effective governance structure provides checks and balances to ensure that the appropriate users are permitted use of the system with reasonable conditions and restrictions placed on their access. For example, ARMER has a number of highly-specialized cases that call for interoperability between government and private sectors, such as with BNSF railroad police or in-house fire and EMS operations at US Steel, Cypress Mining, and United Taconite that would, under normal conditions, not be traditional users of the government’s communications network. In their communities, however, seamless interoperability between these entities and traditional first response agencies is within the public interest.

**The Governance Structure allows the State and regions to encourage wide adoption of the ARMER system by all appropriate public safety users.** It enables interoperable communications between public, private, primarily public safety, and non-primarily public safety entities as required during a major incident, so that the command staff can focus on how to respond and not on how to communicate.

### *Interpretation of Applicable Provisions of the Homeland Security Act*

**FirstNet’s expansive reading of the Homeland Security Act’s definition of “emergency response providers” (and thus “public safety entity” under the Act) is necessary and appropriate** because without it, FirstNet would not be able to meet its mandate: providing reliable communications that accommodate the highly incident-specific nature of public safety and emergency response. In Minnesota, for example, security services at casinos are provided by tribal agents who are not sworn law enforcement officers. Casino security responds to medical and criminal calls and communicates regularly with law enforcement, fire, and EMS. Though casino security may come under the definition of

<sup>30</sup> ARMER Standard 5.1.0 at <https://dps.mn.gov/divisions/ecn/programs/armer/Documents/standard510.pdf>

<sup>31</sup> ARMER Standard 3.35.0 at <https://dps.mn.gov/divisions/ecn/programs/armer/Documents/standard3350.pdf>

<sup>32</sup> ARMER Standard 3.16.0 at <https://dps.mn.gov/divisions/ecn/programs/armer/Documents/standard3160november2013.pdf>



“public safety entity” through another means, the FirstNet interpretation is broad enough to capture the wide variety of entities to which incident commanders, in the heat of emergency response, may wish to provide access to the NPSBN on a prioritized basis.

**The State supports the direction of FirstNet’s preliminary conclusion that individuals may be “public safety entities,”<sup>33</sup> but it urges FirstNet to address head-on the legal basis for the conclusion.** The Notice explains that Sec. 2 of the Homeland Security Act specifically includes “personnel” within the definition of “emergency response providers,” from there making the leap that “individuals may fall within the definition of ‘public safety entity’ so long as they are serving in their official capacity.”<sup>34</sup> The leap is apparent in the citation: FirstNet cites Sec. 337(f)(1)(A) of the Communications Act, a provision which, as the Notice acknowledges, “indicates that public safety services are services provided only by governmental entities and nongovernmental organizations.”<sup>35</sup> FirstNet should address explicitly the legal basis for extending to the Communications Act the definition of “public safety services” a provision that exists only on the Homeland Security Act of the definition. Minnesota encourages the broad reading of the Act reflected in FirstNet’s preliminary conclusion, but in order to help States identify potential users and set appropriate expectations, it urges FirstNet to shore up its underlying legal reasoning.

### Eligibility for Public Safety Status

FirstNet is correct in its preliminary conclusion that the *quantity* or relative *proportion* of “public safety services” provided (beyond a *de minimis* quantity) cannot disqualify an organization or individual from “public safety entity” status.<sup>36</sup> The Act makes no such limitation; the only reference to an entity’s public safety focus is in the Sec. 337(f) requirement that “public safety services” when provided by nongovernmental entities must be authorized by a “governmental entity whose primary mission is the provision of such services.” The Act itself does not indicate a quantity of “public safety services” that an entity must provide in order to be a “public safety entity.” Accordingly, part-time officials such as volunteer firefighters qualify as public safety users at all times, even when they are not responding to a call. There is also a practical reason to support FirstNet’s preliminary conclusion in this regard: **a responder using a device or service all the time will use it far more effectively in emergencies.** During an incident, there is not time to refresh one’s memory by looking through a user guide.

### Volunteer Responders and Non-Public Safety Traffic

Volunteer responders, including firefighters and EMTs, are not responding to incidents most of the time. However they would have access to a BC14 device issued to them, so they would likely have access to BC14 and the NPSBN at all times. However, we see no manageable means to migrate a particular user or device in and out of “public safety user” status. A public safety entity is always a public safety entity—volunteer, full time, on the clock or off—and during a major, “all-hands” event anyone and everyone that is a public safety entity may be called to act. **The State therefore proposes that the user is considered a “public safety user” at all times, whether responding to an incident or not.**

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<sup>33</sup> 79 FR 57062.

<sup>34</sup> *Id.*

<sup>35</sup> *Id.*

<sup>36</sup> *Id.*



### *The Role of Governance in Determining Public Safety Eligibility*

Governance structures within the States and regions are best-equipped to deal with the issues associated with assigning public safety status to such a broad range of users: chiefly, the probability that the network could become congested with non-public safety traffic. Governance structures can assign priority and pre-emption capabilities, for example, to specific data types that traverse the network that are not likely to be related to official activities and/or not likely to be critical to the mission at hand (e.g., external web requests).

However, there must be established some sort of common nationwide framework for configuration parameters that might vary from state to state. For example, two neighboring states may handle HAZMAT operations differently in their priority schemes. During a mutual aid HAZMAT event along this hypothetical two-state border, responders from the visiting state may not fit smoothly into the host state's prioritization scheme. A nationwide framework and set of standards needs to be established to resolve these sorts of potential conflicts. This is particularly important in the case of opt-out RANs where a state may have a much higher degree of autonomy over how the network operates.

We note that NPSTC has performed some initial work related to assigning priority on the public safety broadband network.<sup>37</sup> While most of the work done to prepare this report predates FirstNet and it may not wholly apply to FirstNet's deployment, we feel that there is value to the technical contents of the report and encourage FirstNet to consider NPSTC's recommendations in forming standards for the network.

### **Related Personnel**

The State supports FirstNet's interpretation of the phrase "related personnel, agencies, and authorities" in the Homeland Security Act definition of "emergency response provider" as including "personnel, agencies, and authorities that provide support" to the emergency response effort.<sup>38</sup> The provider of any such support would be "related" to the public safety entity by virtue of providing the support; to argue otherwise would effectively read the term "related" out of the statute, violating the basic principle of statutory interpretation that courts should "give effect, if possible, to every clause and word of a statute."<sup>39</sup>

### **Opt-Out States as Public Safety Entities**

The Notice asks whether Opt-out states are "public safety entities" or some other, unspecified type of "NPSBN users."<sup>40</sup> The question presumes, incorrectly, that an Opt-out State itself can be a "NPSBN user." An Opt-out State, taking responsibility for the RAN in the State, will connect to the FirstNet core network to provide service to its public safety entities and secondary users. End-users of the NPSBN in Opt-out States will contract with the Opt-out State for service; they will not have a contractual relationship with FirstNet. Thus, FirstNet must have a mechanism to recover its costs of providing core

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<sup>37</sup> Priority and QoS in the Nationwide Public Safety Broadband Network  
[http://www.npstc.org/download.jsp?tableId=37&column=217&id=2304&file=PriorityAndQoSDefinition\\_v1\\_0\\_clear.pdf](http://www.npstc.org/download.jsp?tableId=37&column=217&id=2304&file=PriorityAndQoSDefinition_v1_0_clear.pdf)

<sup>38</sup> *Id.*

<sup>39</sup> *Montclair v. Ramsdell*, 107 U.S. 147, 152 (1883).

<sup>40</sup> 79 FR 57063.



services to those Opt-out State end-users; Section 6302(f) provides that mechanism, since Opt-out States will have a contractual relationship with FirstNet. Opt-out States, as they market service to public safety entities and secondary users via “public-private partnerships” (see discussion below), will determine each entity’s “user” type just as FirstNet will in an Opt-in State, pursuant to the definition in the Act.

**FirstNet cannot treat an Opt-out State as an “NPSBN user” and thus cannot charge it a “network user fee”** under Sec. 6208(a)(1) because the Opt-out State provides its own RAN and thus does not “seek access to or use of the nationwide public safety broadband network.” If a State elects to opt-out, it takes on the risks of deployment, operation, and maintenance of the RAN, and its only obligation to FirstNet is to pay the costs of core services for that access to the NPSBN from within the State and to comply with technical, operational and other standards dictated in the opt-out spectrum lease agreement.<sup>41</sup> Opt-out states are authorized to charge network user fees; if a state opts-out, FirstNet is not authorized to charge network user fees to that state’s customers. The opt-out state has to pay core service fees and only core service fees to FirstNet. It need not meet any other obligation to FirstNet in order to provide service to “public safety entities” and entities receiving service through “public-private partnerships for construction, maintenance, operation, and improvement of the network.”<sup>42</sup>

## Elements of the Network

### Defining the Core and the RAN

**We recommend that FirstNet remove “device services” and “all other network elements and functions other than the radio access network” from its definition of the core network; the definition is too expansive.** We see potential negative impacts to public safety operability over the long term if demarcation is established according to FirstNet’s definition. The Act defines the RAN as “[Consisting] of all cell site equipment, antennas, and backhaul equipment, based on commercial standards, that are required to enable wireless communications with devices using the public safety broadband spectrum.”<sup>43</sup> This means that the RAN consists of equipment at the cellular site and the backhaul supporting that site, which is consistent with FirstNet’s definition of the RAN.<sup>44</sup>

FirstNet concludes that the core is “all other network elements and functions other than the radio access network,”<sup>45</sup> including all “device services,”<sup>46</sup> which would include the application servers that provide these services. This is a broad interpretation of the “national and regional data centers” and “other elements”<sup>47</sup> that provide access to “the public internet” and/or the PSTN.<sup>48</sup> We do not feel that

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<sup>41</sup> Section 6302(f) describes the fee as one “associated with State use of elements of the core network.” Thus, the amount of the fee must be determined by the cost to FirstNet of providing the core services consumed by end-users within the Opt-out State. Section 6302(f) does not authorize FirstNet to impose upon Opt-out States through this fee costs resulting, for example, from the construction and maintenance of the RAN in Opt-in States.

<sup>42</sup> Act, Sec. 6302(g)(1).

<sup>43</sup> See Act at 6202(b)(2)

<sup>44</sup> See Notice at pg. 8.

<sup>45</sup> Notice at 7.

<sup>46</sup> *Id.*

<sup>47</sup> Act, Sec. 6202(b)(1).



the law defines all aspects of the network other than the RAN and core as owned and operated by FirstNet.

Specifically, we are concerned that FirstNet’s interpretation means all application servers will be either FirstNet-operated or accessed through traversing an external network—that no application servers deployed by vendors or public safety agencies are resident natively on the NPSBN on a nationwide WAN.

The NPSBN’s potential to provide a shared, nationwide WAN presents tremendous value to public safety; public safety agencies and vendors could be able to deploy, share and market applications on a shared, nationwide WAN without the requirement to traverse the public internet or external networks to access or share information with other agencies or provide service to customers.

FirstNet’s interpretation of the Act defines all “device services” as part of a “core network” that is exclusively FirstNet’s domain. We feel that defining “device services” as part of the core network is an impediment to seamless interoperable data sharing into the future and a barrier to innovation in the vendor community to provide products to public safety.

### Opt-Out RANs and a Common Core

**We concur with FirstNet’s interpretation that the law requires opt-out RANs to use a shared nationwide core.** Not only do we feel this is the letter and the intent of the law, it is also the best means through which to ensure nationwide interoperability.

The Act unambiguously describes a single nationwide core that is constructed by FirstNet. The Act refers throughout the body of its text to “the” core network and to “a” core network in singular.<sup>49</sup> Furthermore, the Act refers to a single nationwide core that is built by FirstNet in consultation with the states,<sup>50</sup> and provides an opportunity for the states to opt-out and construct their own RAN, but not their own core.<sup>51</sup> The clear letter and intent of the law is for the NPSBN to have a single nationwide core network built by FirstNet, not multiple core networks, and not one core network built by many parties.

There are functional benefits to operating on a common nationwide platform. All public safety entities in the nation operating on and having access to a common nationwide WAN can greatly streamline information sharing and interoperability between data stores and application services deployed on the network by public safety and by FirstNet. A single nationwide core also allows FirstNet to utilize an economy of scale that no individual local government, state, or a consortium of states could ever achieve.

## Services

### Defining Consumers

Minnesota agrees that Section 6212 of the Act, which states that FirstNet “shall not offer, provide, or market commercial telecommunications or information services directly to consumers” imposes no

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<sup>48</sup> *Id.*

<sup>49</sup> Act, Sec. 6202(b)(1), 6202(c)(2)(A)(i), 6302(f), and 6001(12).

<sup>50</sup> Act, Sec. 6206 (c)(2)(A)(i).

<sup>51</sup> Act, Sec. 6302(e)(C)(3).



limitation on FirstNet’s ability to provide public safety entities and secondary users access to the NPSBN, or on its ability to lease equipment and infrastructure under Section 6208(a). The “directly to consumers” prohibition is fairly straightforward: it simply requires that any offering of FirstNet services to or use of FirstNet services by entities other than public safety entities and secondary users must be done by a secondary user via a covered leasing agreement. In addition, the Act does not prohibit public safety entities from marketing and providing FirstNet services to consumers; such reselling would not qualify as “offer[ing], provid[ing], or market[ing]” *by FirstNet* “directly to consumers.”

The rationale behind the “directly to consumers” prohibition is to prevent FirstNet from competing directly with private industry for customers beyond public safety entities and secondary users that enter covered leasing agreements. Commercial cellular carriers, for example, fully expect that FirstNet will compete with them for public safety entities’ business, but for other potential subscribers, carriers will be able to negotiate covered leasing agreements with FirstNet allowing them to use FirstNet services to serve their own commercial customers. As a result, rather than competing with FirstNet for commercial customers, carriers will compete with each other to serve the consumer via a combination of their own services and resold FirstNet services.

The rationale is the same for the similar prohibition imposed on Opt-out States by Section 6302(f) of the Act:

A State that chooses to build its own radio access network shall not provide commercial service to consumers or offer wholesale leasing capacity of the network within the State except directly through public-private partnerships for construction, maintenance, operation, and improvement of the network in the State.

### Opt-out States

**Opt-out States stand in the shoes of FirstNet with regard to the RAN in the State, including the leasing of excess network capacity accessed within the State.** The Act provides for FirstNet to lease excess capacity in Opt-in States through covered leasing agreements; in Opt-out States the leasing mechanism is a “public-private partnership” between the Opt-out State and a private “partner.” Indeed, Section 6208(a)(1)(B) of the Act defines “covered leasing agreement” much as Section 6302(f) describes the agreement an Opt-out State would use to “offer wholesale leasing capacity:”

A written agreement resulting from a public-private arrangement to construct, manage, and operate the nationwide public safety broadband network between the First Responder Network Authority and secondary user.

### Evaluating Existing Infrastructure

**The States should be required to research availability and evaluate the economic desirability of existing infrastructure in the State.** This requirement is consistent with State duties after accepting funds under SLIGP for collecting asset and infrastructure inventories for SLIGP Phase 2.<sup>52</sup> The States are

<sup>52</sup> FFO at 3 (“The second phase [of SLIGP] will fund data collection activities provided that FirstNet has determined that it needs standardized asset and infrastructure inventories from the States in designing the nationwide public safety broadband network.”).



better-positioned to review the infrastructure that exists within their states and determine whether it meets their individual coverage requirements.

**FirstNet’s Notice appears to place exclusive or nearly-exclusive value on cost** and not quality or the State’s coverage requirements. Relevant sections of the Notice<sup>53</sup> request comment on how Federal Acquisitions Regulations (FAR) should be interpreted,<sup>54</sup> how RFPs should be structured<sup>55</sup> and how responsive proposals should be evaluated<sup>56</sup> to determine “economic desirability” as well as how to categorize different types of infrastructure.<sup>57</sup> Nowhere in this section, however, does FirstNet seek input on how economic desirability should be weighed against a State’s requirements, what test any proposed infrastructure must pass to be determined suitable for public use prior to an economic evaluation, or how FirstNet and a State should approach remediation of any infrastructure incorporated into the network which fails or otherwise does not ultimately meet public safety’s needs.

**We propose that the States and FirstNet adopt measurable requirements** in each state during the state consultation process to evaluate infrastructure, and that States index and value the infrastructure in each State according to those requirements. The development of these requirements and performing the related data collection activities fits within the work required by SLIGP.<sup>58</sup> Furthermore, states are better-positioned than FirstNet to manage the monumental task of indexing and evaluating all of the pre-existing infrastructure throughout the 56 states and territories with all of their unique characteristics, including municipal broadband infrastructure, land mobile radio systems, government private data systems, rural Telcos and tribally-owned assets to name a few.

## Fees

**FirstNet is authorized in the Act to charge only four fees: network user fees under Section 6208(a)(1), covered leasing agreement fees under Section 6208(a)(2), fees for use of FirstNet infrastructure and equipment under Section 6208(a)(3), and fees for Opt-out State use of the FirstNet core network under Section 6302(f).** FirstNet is not authorized to charge any fees other than these four.

Had Congress not specifically identified these four fees and specifically authorized FirstNet to charge them, FirstNet may arguably have been less limited in its authority to charge fees—in order to meet its mandate to construct and provide ongoing service, it would have needed to generate revenue by relying upon its broad authority under Section 6206(b)(4) to “take such other actions as may be necessary to accomplish the purposes set forth in this subsection” which include “the building, deployment, and operation of the nationwide public safety broadband network.”<sup>59</sup> But Congress did specifically identify and authorize these four fees and no others. FirstNet argues at some length that the Act’s use of the word “including” in Section 6208(a)(1) (FirstNet may charge a network user fee to “each entity, including any public safety entity or secondary user, that seeks access ...”) provides FirstNet authorization to

<sup>53</sup> Notice at 28-32.

<sup>54</sup> Notice at 31.

<sup>55</sup> *Id.*

<sup>56</sup> *Id.* at 30.

<sup>57</sup> *Id.* at 31.

<sup>58</sup> FFO at 3.

<sup>59</sup> Act, Sec. 6206(b)(1).



charge such a fee to “a group of other, unspecified entities.”<sup>60</sup> If FirstNet is correct that the word “including” converts a closed set to an unbounded one, then it cannot reasonably ignore the absence of “including” or any similar term in another context. In Section 6208(a)(1), Congress “demonstrated ... that it knew how to” insert the word “including” when it so intended.<sup>61</sup>

As explained elsewhere in these comments, **the State disagrees with FirstNet’s preliminary conclusion that the fee authorized under Section 6302(f) for use of core elements is a subset of the fees authorized under Section 6208(a)(1) for use of the NPSBN.**

The State agrees generally with FirstNet’s preliminary conclusion that it may assess authorized fees “individually, and cumulatively as applicable,”<sup>62</sup> but with the following two caveats:

- (i) **FirstNet is not authorized to charge an Opt-out State any fee other than the core network fee** under Section 6302(f) and the infrastructure and equipment fee under Section 6208(a)(3), if applicable; and
- (ii) The Act does not authorize FirstNet to charge fees directly to an Opt-out State’s public safety entities, secondary users, or other end-users, though the Opt-out State may permit such fees by agreement.

The State is not aware of any authority other than the Act under which FirstNet may charge fees.

### *Network User Fees*

Based on the presence of the word “including” in Section 6208(a)(1) of the Act, FirstNet preliminarily concludes that there is an unspecified group of entities in addition to public safety entities and secondary users to which it “may charge a user fee.”<sup>63</sup> The word “including” is specifically applicable only to the fee for an entity “that seeks access to or use of the nationwide public safety broadband network.” It is not applicable to all “users.” Thus, the group that “is not limited to only public safety entities or secondary users, but could potentially include other entities” includes only those that may be charged a fee for usage of the NPSBN—and not any other group, such as Opt-out States that do not seek to use the NPSBN, as explained above.

**The State expects both FirstNet and Opt-out States to pursue agreements with secondary users such as commercial cellular carriers** and sees great potential for such efforts to help quickly and efficiently deploy and operate the network, particularly in such areas as billing and network maintenance. Though the State agrees that “FirstNet may charge a user fee to any eligible customer, including secondary users who may have already entered into a covered leasing agreement,”<sup>64</sup> it would expect such agreements to incorporate and detail any such fees, effectively obviating the need for authority outside the agreement to charge them. The State also cautions FirstNet against piling up fees on eligible users for fear of suppressing growth of the user base.

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<sup>60</sup> 79 FR 57060.

<sup>61</sup> *Meghrig v. KFC Western, Inc.*, 516 U.S. 479, 485 (1996) (“Congress thus demonstrated in CERCLA that it knew how to provide for the recovery of cleanup costs, and that the language used to define the remedies under RCRA does not provide that remedy.”).

<sup>62</sup> 79 FR 57066.

<sup>63</sup> *Id.*

<sup>64</sup> *Id.*



### State Core Service Fees

The State agrees with FirstNet’s preliminary conclusion that the core usage fee that FirstNet is authorized to charge Opt-out States is “separate and distinct from any other fees authorized by the Act.”<sup>65</sup> This conclusion, however, conflicts with FirstNet’s stated view that “user fees described in Section 6302(f) [is] a specifically authorized subset of fees under Section 6208(a)(1) for ‘use of’ the core network,”<sup>66</sup> a conclusion with which the State does not agree.

FirstNet states that “user fees authorized by Section 6208(a)(1) are distinct from ... lease fees related to network equipment and infrastructure authorized by 6208(a)(3).”<sup>67</sup> Such fees are defined in Section 6208(a)(3) of the Act as “A fee from any entity that seeks access to or use of any equipment or infrastructure ... constructed or otherwise owned” by FirstNet. Just as use of equipment and infrastructure is qualitatively distinct from “access to or use of the nationwide public safety broadband network” under Sec. 6208(a)(1) so, too, is “use of elements of the core network” under Section 6302(f). Accordingly, **the Act authorizes FirstNet to charge an Opt-out State for usage of core elements only under Section 6302(f) and not under Section 6208(a)(1).**

### Lease Fees Related to Network Capacity and Covered Leasing Agreements

The Act defines a “covered leasing agreement” in Section 6208(a)(2)(B) as “a written agreement resulting from a public-private arrangement to construct, manage, and operate the [NPSBN];” from the term “public-private arrangement” FirstNet reaches the preliminary conclusion that a covered leasing agreement must be between FirstNet and a private entity.<sup>68</sup> This interpretation is more restrictive than necessary and ignores the phrase “a written agreement resulting from.” The language does not state that the “public-private arrangement” is the “written agreement” itself; indeed, it suggests that the two are distinct. To endow all of the provision’s language with meaning, **FirstNet should adopt a broader interpretation under which a covered leasing agreement would also include, for example, a written agreement between FirstNet and a State (as “secondary user” in this case) resulting from the State’s partnership with a private entity.** FirstNet’s narrow reading is not required by the language of the Act.

**Minnesota supports FirstNet’s preliminary conclusion with regard to the “public-private arrangement” referenced in the Act’s definition of a “covered leasing agreement” that “there is no minimum amount, other than a *de minimis* amount, of constructing, managing, and operating that a CLA lessee must do in order to satisfy the definition.”** Likewise, the State agrees that “a secondary user is not required to perform all three functions of constructing, managing, and operating a portion of the network, so long as one of the three is performed as part of the CLA.”<sup>69</sup> A contrary reading would severely restrict the potential population of entities with which FirstNet’s could engage in a covered leasing agreement. The State believes that simply paying the covered leasing agreement fee would be adequate to meet the “construct, manage, and operate” requirement in the Act.

**The State also strongly supports the view that the Act’s description of a covered leasing agreement permitting access to network capacity on a “secondary basis” must be read to mean access to capacity**

<sup>65</sup> *Id.*

<sup>66</sup> *Id.*

<sup>67</sup> *Id.*

<sup>68</sup> *Id.*

<sup>69</sup> *Id.*



**not needed for “public safety services.”**<sup>70</sup> On an operational basis, however, the State is concerned that it will be difficult to determine when a public safety entity is using network capacity for public safety services and when it is not. As explained elsewhere in these comments, public safety users must use their devices and services day-to-day in order for them to be of maximum value in an emergency. Minnesota urges FirstNet to consider revising its conclusion to define access to network capacity on a “secondary basis” to mean access to capacity not needed for “public safety entities” rather than “public safety services.”

#### **Network Equipment and Infrastructure Fee**

FirstNet states that the fee for use of network equipment and infrastructure under Section 6208(a)(3) is “distinct and separate” from fees for NPSBN usage and covered leasing agreements.<sup>71</sup> The State agrees with that preliminary conclusion and suggests that leases for use of equipment and infrastructure would define themselves in contractual language. The language would be drafted to specify what the fee covers and would reference and distinguish any fees charged by FirstNet for NPSBN usage, covered leasing agreements, or (for Opt-out States) usage of core network elements.

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<sup>70</sup> *Id.*

<sup>71</sup> *Id.*



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