



October 24, 2014

First Responder Network Authority (FirstNet)
National Telecommunications and Information
Administration
U.S. Department of Commerce

Re: Request for Information for Comprehensive Network Solution(s)

I am pleased to provide the attached on behalf of FloridaNet in response to the First Responder Network Authority's (FirstNet) Request for Information (RFI). Specifically, the RFI requests information on approaches to and objectives for establishing a nationwide interoperable public safety broadband network. The state of Florida established FloridaNet to work collaboratively with FirstNet on a network design that will meet Florida's unique public safety broadband data communication needs. I am confident the attached provides information that assists in accomplishing our shared goal.

Thank you in advance for your consideration of information provided. Should you have any questions or need additional information, please contact Larry Gowen, FloridaNet Project Manager at (850) 617-2117 or via email at LarryGowen@flhsmv.gov.

Sincerely,

Terry L. Rhodes
Executive Director, Florida Department of Highway Safety and Motor Vehicles
State Point of Contact (SPOC)
Chair, FloridaNet Executive Committee

Attachment

CC: FloridaNet Executive Committee



Executive Committee Members

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INTRODUCTION

The State of Florida greatly appreciates this opportunity to provide its comments to FirstNet's Request for Information for Comprehensive Network Solution(s). The FloridaNet program was established to work with FirstNet to create a network design for Florida to connect to the nation's first Nationwide Public Safety Broadband Network (NPSBN). The State is eager to collaborate with FirstNet to find successful solutions to public safety's broadband data communications needs throughout Florida and nationally. The success of the nationwide network relies on meeting the unique needs of the states and territories, thus enabling them to adopt the network. The State seeks to collaborate with FirstNet to develop a mutually agreeable solution to meet those needs and to opt in to the FirstNet plan. The comments and feedback provided herein represent ways in which FloridaNet and FirstNet can work together to achieve our objectives.

The State of Florida does not consider FirstNet to be an advancement exclusively for public safety, but sees the NPSBN as an opportunity to enhance and invigorate the overall economy of the State of Florida and expand broadband access and capacity beyond public safety when the full capability of the system is not needed. We have addressed our thoughts regarding these opportunities within our response. While the primary objective of FirstNet is to enhance public safety data communications, the State is eager to find synergies with other State objectives wherever possible, including near-term integration with Next Generation 911 (NG911) and long-term convergence with land mobile radio (LMR) systems.

We believe that it is essential to architect and deploy a network that considers the benefits and functions of the NPSBN ten to fifteen years into the future. The NPSBN must continue to evolve to address the changing needs of public safety and continue to leverage commercial and public safety inspired innovations. While our comments herein are focused primarily on the non-Land

Mobile Radio communications needs of the State of Florida, we believe it to be reasonable that broadband-based wireless technologies can be leveraged to accommodate the needs of public safety for push-to-talk services within the next ten to fifteen years as FirstNet matures. As FirstNet strives to meet the mission critical voice needs of the public safety community, the bar for service area, reliability, and other factors will rise much higher. Therefore, it is important that the NPSBN scale to accommodate the overall net mission critical voice and data communications requirements of public safety as users increase and uses expand.

ABOUT FLORIDANET

The State of Florida has many unique requirements, namely in population and topography. From the red clay hills of Tallahassee to the “Conch Republic” of Key West, Florida is arguably one of the most diverse states in the nation. With a population approaching 20 million, it is the 4th most populous state and the 8th most densely populated (according to the 2010 US Census). Florida’s theme parks, beaches, golf courses, and campgrounds attract a huge amount of tourists and make it a popular location for hosting conferences and conventions. *Visit Florida* reported that a record number of 94.7 million visitors came to Florida in 2013.

Florida’s 1,350 mile coastline—the longest in the continental US—is bordered by the Atlantic Ocean, the Gulf of Mexico, and the Florida Straits. The coastal and marine coverage includes distinctly different beach areas such as the Emerald Coast, the Space Coast, the Nature Coast, etc., as well as 4500 islands. However, Florida is not just a “beach” state; the geography of Alabama and Georgia bleed into the north Florida panhandle. And while no area in Florida is more than 70 miles from seawater, the southern peninsula is home to extensive swampland including the Everglades.

The Sunshine State, loved for its balmy, tropical climate and mild winters, also has its share of inclement weather. The rainy season during the summer months can bring thunderstorms, lightning strikes, flash floods and tornadoes. Hurricane season lasts from June 1 to November 30, with August through October being the peak of the season. During the dry season, Florida often sees an increase in the number of brush fires. In the winter months, most areas do not experience any frozen precipitation, however there have been the occasional instances of light snow and sleet in northern Florida.

Acquisition Approach Statements

The State of Florida has reviewed the Acquisition Approach section of the Request for Information (RFI). The Acquisition Approach articulates several key aspects regarding the current and evolving FirstNet plan and sheds light on various aspect of how FirstNet intends to execute on its legislative mandate. The State of Florida offers the following comments, opinions and recommendations to the Acquisition Approach section of the document.

Public Safety Needs

The RFI states “FirstNet has outlined program objectives that encourage innovative solutions to meet and exceed public safety’s needs....” The State of Florida completely agrees and supports this statement and perspective. However, it is unclear to the State how FirstNet intends to accomplish this objective. FirstNet and its private partners must focus on delivering effective innovations to provide compelling solutions to the states and territories. At the same time, the service and devices needed to access the network must be affordable and sustainable. In order to provide a viable solution, it is critical that FirstNet meet or exceed the needs of the State of Florida, but those needs have not yet been collected and communicated. The State is concerned

about FirstNet moving forward with a Request for Proposal (RFP) prior to collecting and vetting the comprehensive set of requirements. If release of the RFP occurs in advance of completing the final state consultation, the State seeks to understand how certain issues will be addressed.

- What are FirstNet’s presumed requirements for the State of Florida?
- If the state’s requirements differ from those initial FirstNet requirements, will the Offerors be required to revise their proposals to address the final State requirements?
- Will the State be asked to opt in or opt out prior to revisions to the proposals that address the Florida-specific set of requirements?

State participation depends on the FirstNet service meeting or exceeding the unique needs of the State and its public safety users. It is vital that all requirements be taken into account in order to provide a solution that truly meets public safety’s needs.

Control and Operation

The RFI indicates that “FirstNet will seek proposals for a network solution or solutions allowing it to control and operate a nationwide Core network, Radio Access Networks in Opt-in States, as well as for devices, deployable capabilities...” The State recognizes that we will need significant external capital investment to cover the entire country and to sustain the network and FirstNet operational expenditures. When considering that external, private investment is fundamental to the success of the network business case, FirstNet should be open to a variety of “control and operate” scenarios. FirstNet and the private sector must develop and implement a solution that fosters, not stymies, innovations and leverages the ongoing developments and inventions of the commercial wireless industry. FirstNet is likely to encounter challenges implementing and

managing solutions, while controlling the entire infrastructure, when it seeks billions of investment dollars and operating cost coverage from the private community. Such challenges must be prudently managed to the mutual benefit of public safety and the private partners.

Secondary Use of Excess Network Capacity

The RFI indicates that “FirstNet seeks solutions that would include in-kind or monetary value provided by Offerors in consideration of secondary use of FirstNet's excess network capacity pursuant to Covered Leasing Agreements.” The State of Florida believes that leveraging excess network capacity is critically important—without it, the State does not envision a viable means to satisfy the objectives of the NPSBN. However, it is not yet apparent that the respective RFI questions and public responses will altogether highlight the parameters in which FirstNet can leverage the full value of the excess capacity. The State recommends that prospective private partners document their business requirements to stimulate participation and investment into the network. Such partnership inquiry should include:

- What are the conditions of the private partners for making the required investment to build and operate the NPSBN?
- Will the private partners require a specific amount of available capacity to justify their investments?
- Will the private partners agree to the local control requirements of the public safety community (including, for example, the ability to influence change management, system maintenance windows, priority and preemption)?

The State has a number of additional comments with regard to how the Covered Leasing Agreements are managed, as detailed in the sections below.

Questions Related to Acquisition Approach and Program Objectives

a. Economics of Scale and Scope

The State of Florida believes that leveraging existing commercial mobile infrastructure is fundamental to a successful deployment strategy, as governments lack the comprehensive nationwide infrastructure to provide 100% of the solution. Recognizing that this overall infrastructure—not owned by a single entity—is critically important, the State of Florida wants to ensure that FirstNet’s approach does not give a single carrier (nationwide or within a state) an ongoing competitive advantage as a result of spectrum access or funding from FirstNet. A carrier neutral solution, wherever possible, would ensure a fair and equitable advantage for all. We believe that the RFP and the vendor selection process must be open and transparent and allow participation from as much of the vendor community as possible. This will stimulate competition, leverage innovative approaches, and minimize protest risk. *The State of Florida respectfully requests the opportunity to continue its partnership with FirstNet and participate meaningfully in the RFP and vendor selection process.*

b. Leasing Excess Network Capacity

The State of Florida wishes to find a neutral mechanism to share excess capacity with as many interested entities as possible. For example, excess capacity in areas currently not served by cellular carriers should be offered to all existing carriers, as well as to new entrants to the market with innovative business models. This would avoid a single vendor benefiting from the taxpayer investment and would generate an economic stimulus in rural areas of Florida.

While the State of Florida supports FirstNet’s nationwide success, and is especially concerned about the success of FirstNet among its regional neighbors, the State has unique needs that are

currently unserved or underserved. As such, the State encourages FirstNet to prioritize the investment of excess capacity dollars generated from Florida to enhance public safety communications; including building, sustaining, and upgrading the Florida portion of the NPSBN.

The value of leasing network capacity and how that value is “distributed” requires further discussion between the State of Florida and FirstNet. FirstNet should assess the options and benefits of offering national, regional, state, tribal, and local leasing agreements to maximize the covered lease value. However, such agreements must ensure that the proportional value created in the State of Florida prioritize NPSBN enhancements in Florida, and that there must be opportunities for national, regional, state, tribal, and local resellers of the excess capacity in the offering.

c. Spectrum Availability Trade-Offs

FirstNet must not commit a dedicated amount of spectrum to the private sector, as public safety is expected to need the entirety of the spectrum during major events. Only excess capacity on the NPSBN infrastructure, with priority and preemption by public safety traffic, should be allowed.

The State would like to understand the amount of capacity needed by the private partners that would justify their investment in the NPSBN. While the State would like to understand these parameters, the State would reject any proposal that “guarantees” any amount of capacity as that may prevent fulfillment of the public safety mission. The private partners should create incentives for public safety to share capacity on the NPSBN and FirstNet should capture these concepts from the vendor community.

d. Responsible Parties for Network Implementation and Operation

The State of Florida cautions that it may not be in the country's best interest to have a single, nationwide vendor for the implementation and operation of the network for multiple reasons:

- Having a single, nationwide vendor presents a potential single point of failure and is overly reliant on that vendor.
- A single, nationwide vendor lacks diversity in service delivery. In the unforeseen event that the one vendor fails to deliver, an alternative provider would not readily be available to address the needs of public safety. A single nationwide vendor solution would potentially create a "monopoly" for NPSBN service.
- It does not factor in the regional, state, tribal, and local advantages that some vendors may present to address the public safety need, and thereby limits the competitive landscape.

However, in a given geography, such as a state or a regional grouping of states, the State of Florida believes that a single vendor providing the required services is the preferred option. Such a relationship creates a single point of accountability for the state or region and prevents finger-pointing whereby public safety and FirstNet may be "caught in the middle" of a deployment and/or network operational conflict. The State of Florida would expect that Offeror proposals would include best practices regarding the prime contractor's management of the construction and operations of the network, and would succeed in avoiding potential single points of failure.

In the event that a vendor fails to deliver on its contractual obligations, well-defined service level agreements (SLAs) and other contractual requirements will enable FirstNet and public safety to remediate such issues and facilitate the transition to an alternative vendor. Public safety cannot afford to have days, months or years of unsatisfactory service while a dispute of terms or

responsibility endures. In addition, there must be mechanisms for the State to influence vendor management, including subcontractor dismissal or initiating breach of contract due to performance issues in the State of Florida (statewide or local-based).

FirstNet's plans for execution must include the potential for failure of a vendor or the failure of an opt-out state to enact a network. These plans must be addressed at inception and the vendors and opt-out states must agree to these terms in advance.

e. Development Considerations

Consistent with the State's previous comments regarding flexibility of business models and state aggregation, it is imperative that FirstNet contemplate and support multiple vendor technologies. This should include multiple Radio Access Network (RAN) vendors and, if necessary, Evolved Packet Core (EPC or Core) multi-vendor solutions. The State of Florida suggests that FirstNet highlight in its RFP the challenges that multi-vendor solutions may create for interoperability and request solutions to those challenges. While it may seem convenient for FirstNet to restrict the number of vendors, it is unknown how that restriction can influence the ability of vendors to be flexible and creative in addressing the needs of public safety. FirstNet should collect this specific information from the vendor community in subsequent stages of this RFI process as these are critical elements prior to the release of the FirstNet RFP.

f. Site and Infrastructure Usage

The State and localities have highly valuable assets to contribute towards the construction of the NPSBN, though the State recognizes the challenge of contracting and otherwise gaining access to these assets. The State urges FirstNet to develop its plan regarding the State and Local Implementation Grant Program (SLIGP) Phase II asset collection as soon as possible. Included in

that plan should be standard contracts, databases for important asset attributes, and other information that would facilitate the use of public safety assets as quickly as possible. However, due to the sensitive nature of this information, the data collection process must protect the State's critical infrastructure information from public records and disclosure laws. FirstNet should consider leveraging systems currently used by public safety, such as the Department of Homeland Security's Homeland Security Information Network (HSIN), to avoid delays for secure database/information sharing system build and deployment.

The State of Florida notes that these assets may become highly valuable with new entrants to the wireless communications markets as well as covering new geographies (i.e., more rural coverage). Without collecting this information prior to the issuance of RFPs, the vendors are unable to factor these assets into their proposals and FirstNet may not have fully seized on the opportunity to meet the comprehensive needs of the public safety community.

g. Procurement Process

The State of Florida is unified with FirstNet and the public safety community. We are one team solving a nationwide problem. However, we need to ensure that there is sufficient flexibility to meet the unique needs of any one state and leverage the unique partnerships available for each state. The only way Offerors would be provided certainty regarding the scope of partnership inclusion is if opt-in or opt-out status were determined prior to the issuance of the RFP. The State of Florida cannot make an opt-in or opt-out decision without a documented, firm FirstNet offer that is subject to assurances that the RFP process will deliver on FirstNet's intentions. We suspect that other states will have a similar concern and will take a similar position. If FirstNet can provide greater certainty regarding the requirements it will impose on Offerors in the RFP process, these parties may agree to a negotiated opt-in, or if they don't agree to those

requirements, the state may indicate its intention to opt-out. The ability to provide some degree of certainty prior to the issuance of FirstNet's RFP will depend heavily on FirstNet working closely with states.

If these scenarios are not feasible, given the potential private partner differentiators and the risk of opt out, the State does not see any alternative other than state-by-state-based procurement approaches with optional regional aggregation. The State of Florida suggests that FirstNet ask for additional regional-based proposals to be provided for the consideration of the states so that the states can understand the incentives for regionalization. For those states that still choose to opt out, FirstNet could offer the opportunity to use the master FirstNet contracts to purchase goods and services.

i. Duration

The State of Florida asserts that FirstNet, the states and Congress must collaboratively advance the mission of FirstNet to deploy the NPSBN within a sustainable business and partnership model. Succeeding on this objective must override any political, financial, special interest or other efforts to impede this undertaking. However, in the event that FirstNet does not deploy and achieve on the requirements of public safety, states (opt-in or opt-out) and those entities that have deployed early to market public safety broadband networks, should not be restricted from entering into spectrum leasing agreements to use, or continue to use, the 700 MHz spectrum currently licensed to FirstNet.

j. Compliance

The State of Florida fully expects that FirstNet will comply will all provisions of the Act and will seek interpretation whenever it encounters barriers, challenges and issues that impact FirstNet's

ability to advance its mission to deploy a robust network supporting the nation's public safety community.

k. Value of FirstNet to Public Safety Entities

The State of Florida has provided detailed comments throughout this document regarding the importance of providing value to the public safety user via FirstNet and the NPSBN. While we appreciate the importance and challenge associated with delivering on all of these objectives amidst the incredible economic and regulatory challenges, the State of Florida encourages FirstNet to never lose sight of the opportunity associated with the Act and that we must collectively ensure that we fully capitalize on the opportunity.

QUESTIONS

The following section captures the State of Florida response to the questions posed by FirstNet within its RFI.

1. Proposal Strategy

In terms of how FirstNet should seek proposals, the State of Florida recommends that FirstNet explore all options and keep all options on the table. Omitting an option could constrain an Offerors innovation and potentially prevent the development of various unique and compelling solutions.

However, the State would be concerned about the ability of FirstNet to act as an integrator or seek proposals from equipment vendors such that a private partner would be compelled to participate and invest. In such a case, would a private partner invest billions of dollars to relinquish control of the assets purchased with those funds to FirstNet? FirstNet needs to

prioritize those approaches that minimize the financial risk to FirstNet and the states, and to protect them from the potential failure of a partner to properly monetize the excess spectrum. The integrator approach, or the direct purchase of network equipment, would seem to place the burden of financial risk on FirstNet. However, the State does not necessarily oppose such approaches if they deliver the best overall solution to our public safety users.

FirstNet must find a mechanism to allow all interested parties to participate in the economy of excess capacity, but seek single-vendor responsibility within each geography for effective delivery of NPSBN wireless service. The parties must find mutually beneficial ways in which FirstNet, the states, and the private partners share in those excess capacity revenues. More details on the State's perspective on excess capacity are provided below.

2. Leveraging Infrastructure in the Acquisition and Deployment Process

The available assets should be integrated into the beginning of the acquisition process if FirstNet wishes to: a) find new entrants to the market who will want to leverage these public safety assets, and b) expand the footprint of the network beyond the areas where commercial assets currently exist. If this strategy to implement available assets is deemed not possible due to time constraints, the Offerors should address how they intend to eventually leverage public safety assets and how those assets will improve the net offering to public safety.

Respondents to FirstNet and/or opt-out RFPs cannot provide accurate proposals if they do not understand how existing infrastructure can be leveraged in meeting public safety's broadband requirements. FirstNet should inventory these assets as soon as possible and require that the Offeror include the infrastructure in FirstNet's network build out if it is economically desirable to do so. Otherwise, FirstNet may pay higher prices for a network solution that does not include

leveraging pre-existing, government-owned assets, many of which already meet public safety grade hardening objectives. In fact, the availability of some government-owned assets may offer a greater incentive for the private sector to partner with public safety due to the unique availability of those assets that have previously been used for public safety only purposes. In other words, assets that were not ordinarily available to commercial providers may now become available to them, and likewise offer additional benefits to these private partners.

3. Feasibility of Nationwide Coverage

The State of Florida appreciates the considerable cost associated with achieving nationwide coverage. However, public safety has substantial coverage within the State of Florida, including in-building coverage, from the commercial wireless providers. Public safety's coverage expectations have been established by this commercial service—the State expects that public safety will not accept diminished coverage, even if additional features (e.g., hardening, reliability, priority/preemption) are provided. Instead, the State of Florida sees this as an opportunity for increased coverage levels in rural areas both to benefit public safety (e.g., wild land fires, search and rescue, etc.) and to provide economic benefits to consumers via Covered Leasing Agreements where commercial wireless service is otherwise unavailable. Where possible, FirstNet should develop measurable standards for the deployment and operations of the network.

FirstNet and public safety need to plan for the future. While it may be tempting to focus only on the short-term and what it will take in year one for public safety to adopt FirstNet's service, the State of Florida believes the focus should be extended equally to where we want to be in 10 years and beyond. If public safety is to benefit from broadband as the State envisions, we may need

substantially more coverage (i.e., far more in-depth in-building coverage) than what is offered today by commercial carriers. FirstNet is encouraged to find solutions that will launch public safety on a trajectory to achieve more coverage in both rural and urban areas. This may come from additional investments from the private community, or from Federal, state, tribal, and local entities, and perhaps from Congress. It may also be derived via innovative and affordable technologies.

The State of Florida has unique coverage needs that must be addressed by FirstNet and the private partners, such as coastal and marine coverage. For example, land mobile radio (LMR) systems currently provide coverage 25 miles off the coastline. While the initial expectation of the State is that FirstNet's service will be equal to or better than today's commercial wireless voice and data solutions, over time, the State expects that LMR capabilities will be incorporated into the FirstNet services. At that point, the State's requirements become far more stringent if FirstNet intends to offer an eventual replacement to LMR. As such, it is necessary that the FirstNet RFP considers the future convergence between LMR and LTE.

As a standard, FirstNet should establish minimum levels of in-building attenuation coverage equal to or greater than commercial coverage today. Today, the commercial carriers provide substantial in-building coverage. Throughout Florida, they have deployed Distributed Antenna Systems (DAS) providing comprehensive indoor service in major buildings and public spaces. The Florida public safety community expects the same level of service from FirstNet. Therefore, FirstNet will need a mechanism to determine which buildings require DAS service so that public safety can continue to communicate wherever it is possible today and into new environments as deemed necessary in the future.

Though cells on wheels (COWs) and similar deployable systems are not acceptable for primary coverage for the State of Florida, FirstNet needs to address deployable systems used to provide additional, expanded cellular network coverage and/or capacity at large special events or during emergency responses to ensure first responders have the required bandwidth. Again, the commercial carriers have emergency response programs that address service outages and special events. FirstNet's plans and RFP must address comparable solutions, including having access to reliable broadband satellite uplink bandwidth.

FirstNet also needs to explore the increased value of the expanded coverage area, and the potential revenue that it may bring (e.g., increased value for real-time, broadband based, crop management information for the agriculture industry), and create mechanisms that would enable states and locals to make investments into their local economies via coverage growth of the network in a "neutral host" fashion.

4. Procurement of the Core, RAN, and Leasing of Excess Spectrum Capacity

The State of Florida supports the leasing of excess spectrum capacity. The State stresses the importance of prioritizing expanded coverage in those states where excess capacity is driving value and associated revenue. In addition, as stated above, the State believes that using a single vendor in a state or region is preferable to a single vendor nationwide. FirstNet should engage in a state-by-state or regional procurement that gives the states a high degree of control in the award process. As the proposals will have a substantial bearing on the level and quality of the delivered service to the states, the vendor proposal is a key factor in whether the state decides to opt in. State-by-state procurements conducted in close cooperation with the states will provide the greatest chance that both parties will be comfortable with the final proposal and contract.

Perspectives on the “fragmentation” of the contracts and excess capacity are discussed in greater detail in Section E, part b, and Section E, part d.

5. Expenditures to Build, Deploy, Operate, and Maintain the NPSBN

FirstNet can minimize the cost of building the network by leveraging existing assets, whether commercial or public safety owned. However, those assets will come at a price from an operational perspective. These assets may increase the “time to market” speed, but their long term cost must be captured in FirstNet’s sustainability models.

As addressed previously, the State of Florida believes the excess capacity of the NPSBN should be available to all interested wireless service providers and parties, including options for state, tribal, and local governments to stimulate broadband adoption on a neutral basis in that the price and terms for service will be reasonable and non-discriminatory. FirstNet could require that bidders establish their approach to maximizing the usefulness of the excess capacity, and to detail their respective approaches for pricing the network capacity to third parties.

6. Value of Covered Leasing Agreements

In order to maximize the value of the Covered Leasing Agreements, FirstNet must create a mechanism for the private marketplace to purchase excess capacity in the forms that the market desires. Generally, roaming agreements and usage-based wireless pricing are based on the consumed megabytes or gigabytes. However, some wired services base their pricing on data speeds with unlimited usage approaches. FirstNet is encouraged to support as many approaches as possible to fully leverage the excess capacity, though that flexibility must not come at the expense of fulfilling the public safety communications demand.

The State has addressed its positions regarding the level of aggregation of the excess capacity earlier in this response. As mentioned previously, it is important that the State derive benefit from the excess capacity revenue generation captured within the State. The packaging and pricing of excess capacity should incentivize adoption of wireless technologies and the use of the excess capacity without harming the public safety mission. It is essential that FirstNet agreements include language that provides public safety priority and ruthless pre-emption, so first responders will have the required bandwidth on demand. The network, including all its elements, must have sufficient capacity for both planned and unplanned events. The State also encourages FirstNet to establish agreements with satellite providers to ensure sufficient bandwidth, especially in the event of a major emergency.

7. Sustainability and Transition Strategies

FirstNet should require prospective Offerors to ensure sustainability and continued technological advancements equal to or better than those available in the commercial wireless marketplace. Periods of potential vendor and management transition must be seamless (i.e., public safety must experience no lapse in service). FirstNet and the Offerors must develop terms for the disposition of assets that are associated with providing the service in order to ensure seamless transitions.

8. Optimal Prices and Features to Drive Adoption

FirstNet must offer affordable services at a similar or better price than existing carriers offer today. This includes unlimited plans (with no throttling of data speeds) that present the least possible financial risk to agencies. FirstNet could also offer plans that foster increased adoption such as allowing multiple devices per user without increasing the cost. Subscription pricing should downward adjust depending on the greater revenues generated by Covered Leasing

Agreements, increased public safety subscribership, and other market conditions. Pricing should also incentivize machine-to-machine communications that will create a more efficient public safety operation (e.g., smart meters, telematics, etc.).

However, in addition to considering cost, FirstNet should seek solutions that deliver more “value” to public safety. The right suite of applications and features may make public safety operations more efficient and also stimulate increased usage and adoption. FirstNet should work to reduce or remove all barriers to public safety purchase of its goods and services at the state, tribal, and local level. For example, FirstNet must ensure that it provides appropriate state and local contract vehicles to enable hassle free procurement of FirstNet services. Ultimately, public safety agencies will only be compelled to buy these services if they add value to their operations at an affordable cost.

9. Additional Measures Ensuring Sustainability

The State of Florida believes that the best way to ensure the cost basis of the network does not require unusually high user and core fees is to pass this responsibility on to the Offerors. Based on all available evidence, it seems clear to the State that it will cost far more than the currently-allocated funds for FirstNet to build the network, and it will cost far more than the available pool of public safety user fees to operate the network. As a result, FirstNet must find Offerors that are willing to make an investment in order to maximize the value of the excess capacity on the network, and those Offerors must have and properly manage their ability to profit from that excess capacity in order to secure a return on investment for that capacity—all while keeping costs to FirstNet (and thus public safety users) low. Without this type of business arrangement, FirstNet could fail to secure the appropriate revenues under the Covered Leasing Agreements, and subsequently look to public safety or Congress to fund the shortfall. The top priority should

be in identifying the lowest possible financial risk to FirstNet and public safety that meets the public safety requirements. The State fully recognizes the challenge of this objective.

As stated elsewhere in our response, the State of Florida acknowledges the dynamic nature of commercial wireless service plans. Fortunately, the commercial wireless marketplace is highly competitive. As a result, public safety has enjoyed continued reductions in pricing associated with broadband and voice services. The State of Florida is concerned that, if FirstNet adopts and retains an initial fee structure, it may be unable to compete against commercial service plans in the future. Public safety agencies, due to constrained budgets, may then be forced to leave the NPSBN. FirstNet could require that ongoing user fees remain “competitive” with commercial wireless marketplace or FirstNet could establish adoption milestones to ensure the same. In other words, if FirstNet is required to ensure adoption, then it will have to price the service accordingly. In order to reduce FirstNet’s own risks, FirstNet could push this responsibility down to the Offerors who would then be responsible for ensuring that public safety realizes the benefits of the spectrum.

10. Recommended Technical and Deployment Milestones

In order to secure the business of public safety agencies, FirstNet must offer a “different and better” solution. As a result, any initial operational capability (IOC) must present a compelling solution to adopt. There may be some limited adoption for other services (e.g., public safety grade service with priority and preemption for outdoor-only environments may be of interest for vehicle-based subscribers), however, if FirstNet needs substantial subscribership in the public safety community to be sustainable, this solution may not be feasible and a “scaled back” IOC may not be possible. Likewise, devices must be equal to or better than the current options. The

State of Florida notes that many in the public safety community are happy with the quality and variety of products available over commercial wireless networks. These same products must be available over the FirstNet network (including, for example, Apple iOS-based and Android products). FirstNet should facilitate the development of “FirstNet-Ready” devices as soon as possible, in advance of the nationwide launch of the NPSBN. This will enable public safety agencies to migrate immediately to FirstNet once the service is available.

In the very short term, FirstNet could leverage one or more commercial networks on a roaming basis to establish an IOC and offer some differentiated service from the commercial carriers (i.e., exclusive priority or some public safety specific applications), however, it is critical that these capabilities be additive to what public safety already has today.

11. Rural Milestones

States may have different priorities with regard to their rural objectives and may choose to prioritize investments (both Middle Class Tax Relief Act and state/local funded) differently. Rural milestones should be developed on a state-by-state basis and in accordance with the requirements established by each state.

12. Unique Environmental Hardening Objectives

The State of Florida has unique hardening needs, as it is extremely vulnerable to hurricanes and the problems caused by strong winds and flooding. In consideration of the variety of environmental risks and challenges each state may face, the states must be able to establish their own hardening requirements. Only the state and its local agencies can understand the requirements and the importance of achieving those requirements relative to the cost associated with achieving these objectives. These hardening requirements should be collected by States

during the SLIGP process. The State notes that wireless carriers in the State of Florida have been very aggressive with regard to hardening efforts within the State. Those carriers set the service availability benchmarks for FirstNet.

13. Balancing Disparate Hardening and Resiliency Solutions

Each state should establish minimum (baseline) hardening and resiliency solutions, and vendor proposals lower than this level should not be accepted. To best incorporate the priorities of the state for resiliency levels above the minimum, FirstNet should allow each state or region to have a decisional role in the vendor selection process.

The goals of the process should be results-oriented. Vendor proposals should indicate the method the vendor intends to use in order to reach the guaranteed objectives, but the evaluation must focus on the guaranteed results rather than the means by which the vendor achieves those results. It is nonetheless important to assess whether or not a particular vendor's method can feasibly deliver on the guarantee.

The hardening and resiliency requirements must ensure continued operations in the event of specific natural and man-made disasters (e.g., hurricanes and flooding). These are situations where reliable public safety communications are essential and the NPSBN must be built specifically to address these inevitable disasters.

Wherever possible, and in general, FirstNet should leverage existing bodies of work such as those developed by the National Public Safety Telecommunications Council (NPSTC) and other prominent public safety associations and bodies. In this case, the states and FirstNet should look to the NPSTC Public Safety Grade document as a starting point for hardening and resiliency.

14. Unique Homeland and National Security Needs

Homeland security and national security needs of the Federal government, Urban Area Security Initiative (UASI) regions and other specialized environments should be met via the funding mechanisms and grant programs of the Federal and local government. These unique needs should be separated from the State, tribal, and local public safety needs to identify their unique costs. Funding mechanisms and entities such as Department of Homeland Security (DHS) grants and the Department of Defense (DOD) offer more funding than is available to state, tribal, and local agencies, and it would be detrimental to those state, tribal, and local agencies to combine homeland and national security needs with other state, tribal, and local needs.

15. Innovative Approaches Allowing Priority and Preemption

The Long Term Evolution (LTE) wireless technology is very powerful with regard to the options available to prioritizing and preempting traffic. FirstNet should establish operational and technical working groups to address these issues and allow each state to identify a technical representative to begin fine-tuning the requirements such that the vendor community can address the public safety need.

The focus, at this point, should be where LTE cannot accommodate the public safety need.

Therefore, the vendor community should comment on insufficiencies in the existing standards to address their perceptions on public safety need.

The State recognizes that much of the dialog regarding local control focuses on the dynamic allocation of priority on the network as a function of the situation and that software applications will be need to assist in implementing on this dynamic capability. FirstNet needs to develop definitive standards on how this will be implemented such that the application community can

begin to develop solutions. FirstNet should reference the NPSTC Statement of Requirements (SOR) and other NPSTC documents developed by the public safety community when developing various RFP requirements including priority, preemption and local control.

16. Technical and Integration Issues for Consideration at IOC Milestones

The NPSBN and opt-out RAN must be perpetually and seamlessly interoperable. Commercial technologies change rapidly and these changes will likely result in the need to evolve the NPSBN. FirstNet must establish upgrade, interoperability, and other standards to ensure that the vendor community, whether direct to FirstNet or through an opt-out state, understands its full responsibilities for continued interoperability, compatibility, and technical innovation of the NPSBN.

17. Technical and Integration Issues and Costs in Covered Leasing Agreements

The entire NPSBN, including opt-out RANs, must be in lockstep. FirstNet must establish clear expectations of all the vendors and opt-out states regarding the ongoing operations and compatibility of the NPSBN. For example, FirstNet could mandate moving to new 3GPP (or its successor) standards and features within three years of standardization, and that a committee of public safety, FirstNet, and vendors will be engaged in the details on the mechanics of implementation (e.g., when systems will be available for interoperability testing). The State of Florida notes that FirstNet may have different Core and RAN vendors, and therefore experience interoperability challenges of its own. This concern for opt-out states is, therefore, not unique to only opt-out states. It is common that the commercial wireless providers use multiple vendors to build out their networks, and it is likely to be no different for FirstNet.

18. Describe specifically how and when your approach would facilitate FirstNet's determination of whether it is economically desirable to:

- a. leverage existing commercial wireless infrastructure to speed deployment of the network;**
- b. include partnerships with existing commercial mobile providers to utilize cost-effective opportunities to speed deployment in rural areas; and**
- c. enter into agreements to utilize existing commercial or other communications, Federal, state, tribal, or local infrastructure.**

FirstNet should not dictate which assets the vendor community should or must use. Instead, FirstNet should allow the market to determine which assets are the most beneficial and necessary to meet public safety's requirements (including sustainability and affordability).

Time to market, service cost, service area, and service quality should all be evaluated qualities of each proposal. However, the vendor community should be responsible for determining the tradeoffs of the use of different assets in providing their solution. In fact, some vendors may choose to offer "free" access to assets in order to secure public safety's business. We do not want to discourage these and other options that deliver benefit to FirstNet. Furthermore, FirstNet should strongly consider the use of government/public safety assets for multiple reasons. First, they are generally constructed to "public safety grade", and therefore, may provide a more effective solution to meet the public safety need. Second, because these assets are owned by government agencies whose primary objective is the protection of life and property, those entities are likely to make decisions in favor of FirstNet. On the other hand, a commercial entity

will make decisions based its business objectives which may be contrary to the needs of public safety.

19. Leveraging and Accommodating FirstNet’s Entrance into Agreements

Because the State is not offering a specific approach, this section does not specifically apply to the State. However, we note that there are synergies with state collaboration in regard to infrastructure use and the eventual net benefit to the states that the NPSBN infrastructure will provide. FirstNet should collaborate with statewide Information Technology (IT) departments such as the Agency for State Technology (AST) and Department of Management Services (DMS) in designing backhaul and offer these services to public safety in addition to its core wireless services. States are developing, or plan to develop, 911 and NG911 networks which require robust, public-safety grade backhaul for data that, in many cases, will come directly to the Public Safety Answering Point (PSAP) from a FirstNet wireless site. Furthermore, states are developing consolidated statewide data networks for general government, including education, that are non-mission critical in nature. Including NG911 and other government terrestrial needs into the FirstNet’s strategic planning will greatly increase the appeal of FirstNet’s offer to the state.

Within the State of Florida, it has been a primary initiative to create a statewide routing network integrated with NG911. Several Florida counties are currently implementing text-to-911 and it would be ideal to have a standardized approach. MyFloridaNet (MFN) currently allows access to state agencies and counties via the PSAPs. Because FirstNet requires public safety grade connectivity to the Public Safety Enterprise Networks (PSEN) and the PSEN locations are generally collocated with PSAPs, the FirstNet infrastructure could be leveraged as NG911

infrastructure. In order to capitalize on that opportunity, PSAP and the NG911 needs might be appropriate to include into the FirstNet RFP.

20. Program Reliability and Restoration Objectives

As with other elements of today's wireless services, the carriers establish the benchmark for reliability and restoration. In some circumstances, the current disaster recovery service of the carriers is acceptable, and in other cases they do not satisfy requirements. Importantly, restoration of service with the carriers is focused on revenue or costs, not the public safety mission. FirstNet can redirect this prioritization and can be most responsive based on the risk to life and property rather than revenue.

Public safety needs minimum service levels for the NPSBN and to have the ability to expedite service recovery in times of increased demand. Public safety expectations for service levels are established via LMR agreements, which should serve as the target for related NPSBN service levels.

Some commercial cellular carriers also offer public safety controlled emergency deployable systems. These types of solutions may offer a much more rapid service restoration option for public safety and FirstNet. FirstNet should offer a comparable solution for those agencies that want an enhanced response time when services are unavailable.

21. Service Metrics

The State of Florida does not have any additional service metrics to offer today, however, we intend to offer additional details regarding specific metrics as part of the SLIGP program and

within our final consultation with FirstNet. It is important to note that these service metrics may materially impact the FirstNet RFPs or Offeror responses/solutions.

22. Technology Enhancements in Proposal Evaluation

In order to retain nationwide interoperability and compatibility, FirstNet must establish nationwide standards for all parties including opt-out states regarding technology migration. All parties must be aware of expectations regarding technology refresh and the processes and procedures for enabling smooth transitions between software releases, hardware versions, etc. The parties must also adhere to deadlines to facilitate the testing and migration process.

Recognizing that vendors may fail (whether opt-in or opt-out) during these transitions (e.g., they may be unable to afford the migration), FirstNet needs to create plans that allow for the failure of an opt-out state or a failed vendor to ensure the public safety mission is not impacted.

23. Sales and Distribution Optimization

FirstNet should carefully examine the existing commercial wireless providers with regard to the appropriate framework for sales, marketing, and customer care and adopt best practices for servicing the public safety community. While certainly not perfect, the carriers represent the baseline for service with the public safety community. FirstNet should seek, via the SLIGP process, opportunities to improve on the existing frameworks. In addition, the State is concerned that a multi-provider approach to procuring these services could result in finger-pointing (e.g., the network operator could fault the sales and marketing vendor for lack of adoption). If there are to be multiple vendors to assist in these areas, FirstNet must establish clear lines of demarcation between vendors, as well as to establish and manage strict results-oriented service level

agreements with each. In addition, the State of Florida needs to be informed regarding use and usage of the NPSBN in Florida and ongoing performance of the NPSBN.

24. Transitioning Existing Public Safety Customers

FirstNet should reference the NPSTC SOR, which provides specific transitioning recommendations for what is required and how to best transition existing public safety customers. FirstNet and the vendor community should recognize that prior to transitioning to the NPSBN; each agency will need to be confident that the service does not place them at risk of critical communications being impeded. Therefore, it is critical that transition plans accommodate substantial testing of the service. Easing into adoption of the network will allow users to trust that the system will meet their needs and further ensure an improved and low-risk transition.

In order to stimulate adoption and lower risks associated with adoption, FirstNet should roll out devices that work on both the FirstNet network and the existing commercial carrier networks.

This will enable public safety users to revert to commercial services and reduce the risk associated with NPSBN issues. During this initial phase, it will be mandatory for users to know when they are connected to each network, as their connection impacts service features, security and reliability.

25. Product and Service Control

FirstNet should provide the greatest level of flexibility with regard to creating, marketing, pricing, and deploying products and services without sacrificing product or service quality.

Elements such as cost, lack of differentiation, poor coverage, and poor service quality due to excessive roaming will all impact a state's adoption of the network, and FirstNet must provide an

option superior to what is currently available from commercial carriers. For the State of Florida rate limiting would be problematic and FirstNet needs to maintain competitive rates in order to facilitate adoption. The State of Florida would like to see reduction in prices in order to improve adoption of broadband wireless use.

26. Program Compliance Facilitation Under the Act

The awardee must be required to fully support FirstNet's compliance with all laws, provide FirstNet with a self-funded solution, and propose annual fees. FirstNet should also request or require ongoing service modifications (e.g., lower fees) to ensure sufficient public safety adoption.

FirstNet must supervise the vendor and ensure that it is fully compliant with the contract; however, FirstNet should not micromanage the vendors such that the cost of service is unnecessarily increased. Additionally, funds should be provided to the state to assist in oversight and the verification of the contractor meeting contractual requirements.

As stated previously, the State of Florida would like a decisional role in making the vendor selection. As such, the vendor should be an active participant in presentations to the State. The State of Florida will want to meet, and become comfortable with, the vendor that will play such an important role in the deployment of critical public safety broadband communications within the state.

27. Program Compliance Facilitation Under Other Laws

The State of Florida is concerned that burdening FirstNet, the states, and the private partners with regulations that go beyond what today's commercial carriers face could place the NPSBN at

a significant disadvantage (e.g., it could discourage private partners, or substantially increase the cost and time to market for service). We encourage FirstNet to remove obstacles to the greatest extent possible.

28. Statement Of Objectives (SOO) Feedback

The State of Florida's detailed feedback is provided below for each objective in the SOO. In general, the SOO includes a number of elements that should be determined by public safety via the SLIGP program. The State encourages FirstNet to wait for this state input before finalizing a number of these objectives.

29. Program Objective Feedback

The State's feedback on the SOO is provided below.

30. Additional Information

The State of Florida appreciates the opportunity to share its views with regard to this RFI. It is important to the State that FirstNet perceives and accepts the State of Florida as a long-term partner in solving public safety's communications challenges. This requires continued collaboration long beyond the opt-in/opt-out decision. The State envisions an ongoing collaborative process that includes user group meetings and other mechanisms allowing the State and its public safety users to continually influence the direction of FirstNet and its vendors, and that collectively we play an important role in defining the future direction and plans of FirstNet to the direct benefit of the State and the overall nationwide public safety community.

STATEMENT OF OBJECTIVES

- 1. BUILD, DEPLOY, OPERATE AND MAINTAIN the NPSBN: Provide a nationwide interoperable public safety broadband network that ensures network coverage 24/7, 365 days a year and complies with the Technical Requirements.**

It is critical that the Technical Requirements include the needs of the states, and not just the Technical Requirements of FirstNet and the Technical Advisory Board.

- 2. FINANCIAL SUSTAINABILITY: Perform all program objectives while minimizing risk and use of FirstNet Resources to build, deploy, operate, and maintain the NPSBN.**

The State of Florida agrees with this objective.

- 3. COMPELLING AND COMPETITIVE PRICING PACKAGES: Establish pricing structures to support services packages that include data, voice, messaging, streaming, and location services, and that promote optimum public safety subscribership while maintaining financial sustainability.**

FirstNet should establish adoption metrics to incentivize the vendors and ensure that the spectrum benefits public safety and does not simply become “free spectrum” for a service provider. In addition, FirstNet should seek other revenue generating opportunities such as hosted applications and interagency interconnectivity to both enhance FirstNet sustainability and the public safety mission.

- 4. END USER DEVICES: Provide 3GPP-compliant Band 14 devices that operate seamlessly on the NPSBN, roam onto partner networks (including non-band 14 networks), and interoperate with FirstNet’s application ecosystem.**

In order to stimulate BC14 support in devices, FirstNet should seek Federal Communications Commission (FCC) rules that mandate BC14 in all commercial wireless devices that operate in the 700 MHz spectrum band. FirstNet should create mechanisms to stimulate device development for the public safety marketplace. For example, FirstNet should create minimum device requirements and allow all vendors who meet those device requirements to sell devices for operation on the FirstNet network and allow all vendors that meet those minimum requirements to sell devices through FirstNet distribution channels.

5. APPLICATION ECOSYSTEM: Establish an application ecosystem that provides public safety-relevant capabilities and services.

The State of Florida encourages the creation of a new application ecosystem; however, FirstNet cannot be a barrier to application innovation. If public safety is unable to innovate (potentially developing new custom applications), public safety will likely turn to a different solution. Note that a jurisdiction can currently develop and deploy its own applications without government regulation on commercial app stores, such as Google Play and the Apple App Store.

Furthermore, they can develop applications and “side load” them onto devices without app store approval. FirstNet regulation of applications may create a competitive disadvantage for FirstNet. The market should be able to address these needs directly.

The State recognizes that applications that are harming the network (security, system performance, etc.) must be repaired or removed, however, the default must not be to restrict or block an application. FirstNet should encourage application development from public safety associations and the commercial marketplace and seek methods to protect the network, but not hamper the ability of the marketplace to address its needs. FirstNet needs to identify a solution

that provides agency flexibility with regard to applications while protecting the network and its public safety users from risks.

6. ACCELERATE SPEED TO MARKET: Achieve operational capabilities that include the provision of initial broadband capabilities, Band 14 capabilities, significant subscribership to the NPSBN, and substantial rural coverage milestones as part of each construction and deployment phase (including initial operational capabilities (IOCs) and final operational capability (FOC)).

Time to market is important to the State of Florida, but not in lieu of meeting public safety requirements and objectives. The State of Florida will not adopt a service that does not meet or exceed current commercial and private service offerings. We note that today's commercial services establish the benchmark, and we must achieve a differentiated solution from those services prior to mass adoption. Furthermore, while commercial operators do not provide "public safety grade" service today, they do provide robust and useful data services that are used daily by millions of first responders across the country.

7. SYSTEM HARDENING: Provide a public safety broadband network infrastructure hardened to withstand environmental, cyber and other threats. The NPSBN must comply with Federal Certified Intrusion and Protection System standards, Federal Information Processing Standard 140-2, and other federal hardening and cyber security standards.

The State notes that hardening requirements differ across the country and that these differences should be explored via the SLIGP. FirstNet should give consideration to prioritizing facilities

based on the critical service delivered by specific assets and hardening based on a state, tribal, and local defined risk matrix.

With regard to security, the network must be hardened from cyber-attack at both the national and local levels. It is imperative that the applications that ride on the NPSBN be able to secure federal, state, tribal, and local certifications for protection from cyber and other threats in response to existing mandates to have secure connectivity to sensitive databases. However, some public safety users and applications do not have mandated federal security requirements. Therefore, FirstNet should not unnecessarily place cyber requirements for sensitive/secure information on traffic, devices, etc. that are not necessarily at risk. For example, it may not be necessary for a transportation worker to have an MVPN client in order to close out work orders or clear debris on a highway. Furthermore, FirstNet security tools and solutions need to complement and avoid conflict with locally implemented solutions.

8. PRIORITY AND PREEMPTION: Provide a solution that allows priority and preemption for all NPSBN users under tiered, national, regional, and local control.

FirstNet needs to provide a definition for “tiered” local control. In the absence of a clear definition of the terminology, the State may have fundamental concerns about such an approach. Generally, the most important responders are local, then state, then regional, then national. In the vast majority of cases, first responder communications are coordinated through a city or county PSAP or dispatch center. However, the State of Florida suggests that the priority and preemption procedures and operational details be discussed and decided by a working group including FirstNet and state representatives.

9. INTEGRATION OF OPT-OUT STATE RANs: Integrate with the NPSBN Opt-out state RANs that meet the Technical Requirements so that users operate without service interruptions, including when crossing Opt-out/Opt-in RAN service area boundaries.

The State of Florida agrees with this statement and would like to add that the objectives must include ongoing and continual improvement of the net NPSBN including those of opt-out states. The objectives should include the provision that protects public safety from failure of the Offeror, FirstNet, or the state.

10. INTEGRATION OF RANs AND INFRASTRUCTURE ON A COST-REIMBURSEMENT BASIS: Facilitate FirstNet’s determination of the economic desirability of using or otherwise leveraging commercial, FirstNet, or other public RANs and commercial, FirstNet, or other public infrastructure. When requested by FirstNet and to the extent they meet the Technical Requirements, use or otherwise leverage such RANs and infrastructure with the NPSBN on a cost-reimbursement basis.

The State of Florida believes that FirstNet should not be in the business of “determination of the economic desirability” of assets. Instead, FirstNet should be results-focused, and not process-focused.

In order to comply with the law, FirstNet should mandate that vendors act in accordance with the law’s components regarding maximum utilization of existing assets and to demonstrate how they meet that requirement in their proposals.

11. SYSTEM RELIABILITY AND RESTORATION: Maintain NPSBN reliability of at least 99.99%, including providing user access with a session setup time <1s, success rate >=99%, abnormal session releases <1%, throughput >256kbps > 95% of time, and

latency <60ms > 95% of time. End-to-end availability, from device-to-applications and device-to-public safety enterprise networks, should exceed 99%. Operate during natural and man-made disasters with restoration of services to the NPSBN as quickly as possible. Provide special consideration to all disaster prone areas designated by the United States Department of Agriculture, Federal Emergency Management Agency, and the National Electric Reliability Council on the No Discharge Zone maps and terrorist target zones on the United States National Security Agency databases.

It is an absolute requirement that the State of Florida receives a meaningful and measurable service-level agreement from FirstNet. All of the system and service specifications should be validated and provided by states via the SLIGP. The operational reliability and performance metrics presented by FirstNet in the RFI SOO represent a starting point, but require additional refinement and state concurrence.

FirstNet needs to define standards-based performance criteria based on weighted variables, along with the associated testing and validation procedures, and enter into contractual vendor agreements to ensure compliance. Since system performance demands will vary greatly based on planned and emergency event requirements, the delivery of network performance must be capable of meeting such time-sensitive requirements. Such capabilities would include deployable facilities (COW, COLT, satellite, etc.) to support these requirements.

The State notes that 256 kbps is not acceptable as a minimum level of throughput. This will not accommodate medium- to high-quality video and it does not provide a good, responsive user experience with a number of other applications. In addition, it is not clear if this metric is based on per-user or aggregate throughput; however, the State of Florida expects the aggregate demand to be in excess of 10 Mbps at a single incident. Public safety users currently experience far

higher speeds than 256 kbps on commercial networks and are unlikely to accept degraded throughput levels over the FirstNet broadband network.

Service availability has two components: coverage availability and network availability.

Coverage reliability should meet or exceed 95% for the area defined as “covered” by FirstNet.

Network availability must exceed 99.9% and should achieve 99.99%. Note that commercial carriers are expected to achieve 99.5%, and hardened coverage should and must achieve better performance and service availability. FirstNet indicates 99.99% percent “reliability” in the SOO. It is unclear what this service metric represents as generally reliability refers to the likelihood of one device (not a system) is operating. Public safety expects that NPSBN devices are reliable; however, we expect best in class design and restoration techniques to maximize the time that service is available to public safety, or the system’s availability. Therefore, FirstNet’s focus should be on service availability.

An end-to-end availability metric of only 99% is not sufficient for meeting the device and application availability and performance required by public safety. FirstNet should work with the states to define acceptable performance metrics and include such requirements into the RFP. In order to deliver highly available connectivity and communications back into the PSEN, FirstNet will need to integrate available redundant and highly reliable transport between the NPSBN and the PSENs.

A metric more precise than “as quickly as possible” is required to define and hold a vendor accountable. Existing LMR SLA response times form a baseline that can be used by FirstNet, but should be fully defined via SLIGP.

The State agrees with the special considerations regarding hardening or resiliency of federally-identified areas, but ultimately, state, tribal, and local agencies may require additional hardening and as previous suggested, hardening requirements may vary from state-to-state and such requirements can be defined with the SLIGP.

12. LIFECYCLE INNOVATION: Evolve the NPSBN solution, including products, services and the incorporation of 3GPP Long Term Evolution (LTE) standards as they are released throughout the life of the contract, in accordance with the TAB Report and the Act.

The NPSBN should be positioned as a living entity beyond 3GPP standards. It should evolve with the 3GPP and an internationally-accepted standardization body for wide area wireless communications. The evolution needs to be lockstep with 3GPP standards evolution and with commercial networks. Such evolution must facilitate continued interoperability and benefits for FirstNet and the commercial partners. FirstNet needs to account for different vendor systems, infrastructure and solutions and opt-out states in its processes and requirements. It must also encourage vendor partners to advance and implement enhancements of the standards that provide the greatest feature benefit to public safety.

13. PROGRAM AND BUSINESS MANAGEMENT: Provide program management for the NPSBN solution in accordance with the Project Management Institute (PMI) standards and the Government Accountability Office (GAO) Cost Guidelines. Provide operational and other reporting information to FirstNet sufficient for FirstNet to ensure its compliance with the Act.

The State of Florida agrees with this objective and suggests that the State be has a decisional project management role regarding FirstNet deployment within the State. It is our expectation and desire to support project management as appropriate, to be included in status meetings and provided with status updates regarding the deployment progress within the State.

14. CUSTOMER CARE AND MARKETING: Market NPSBN products and services to all states, territories, tribal lands and users throughout each FirstNet service area. Provide responsive and timely customer acquisition, service and customer care, including a pipeline of new devices and an ecosystem that meets the needs of FirstNet and FirstNet users. Provide life cycle service and support to all users.

Customer care quality should exceed what is available from commercial carriers. FirstNet's general processes should leverage the administrative management personnel within the public safety agencies who are managing commercial carriers and public safety subscriber units today. These personnel should be provided the training, tools and support to agency personnel to minimize costs and to maximize the partnership opportunity. FirstNet should collaborate with federal, state, tribal, and local entities to deliver the best service.

The State's recommendations regarding devices and the associated device ecosystem was articulated within our response; in summary, FirstNet must create flexibility in device offerings to public safety and leverage commercial device ecosystems to the greatest extent possible. The ultimate success of FirstNet resides in the strength of the commercial partnerships and in the ability to integrate BC14 into a broad spectrum of commercial and public safety devices to facilitate spectrum value and to best manage device costs.

15. FACILITATE FIRSTNET’S COMPLIANCE WITH THE ACT AND OTHER LAWS:

Perform all objectives in a manner, and provide information and services, to facilitate FirstNet’s compliance with its statutory requirements under the Act and other laws applicable to FirstNet.

In meeting its obligations under the Act and with respect to other laws, FirstNet should focus on the required obligations and avoid venturing beyond what is absolutely necessary when considering its evolving role within the wireless carrier ecosystem. FirstNet needs to fully understand its obligations regarding public utility commissions (PUC) and other regulatory and legal commitments, as may be appropriate, and to manage such responsibilities to avoid overburdening itself and/or its partners.