



## **North Dakota – Office of the CIO**

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Members of the National Telecommunications and Information Administration,

Please review and consider North Dakota's comments in response to RFI - Docket No: 12050905-1050-01.

Regards,

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## The Consultation Process

1. Section 6206(c)(2) of the Act directs FirstNet to consult with regional, State, tribal, and local jurisdictions about the distribution and expenditure of any amounts required to carry out the network policies that it is charged with establishing. This section enumerates several areas for consultation, including: *(i) Construction of a core network and any radio access network build-out; (ii) placement of towers; (iii) coverage areas of the network, whether at the regional, State, tribal, or local level; (iv) adequacy of hardening, security, reliability, and resiliency requirements; (v) assignment of priority to local users; (vi) assignment of priority and selection of entities seeking access to or use of the nationwide public safety interoperable broadband network; and (vii) training needs of local users. What steps should States take to prepare to consult with FirstNet regarding these issues?*

- a. What data should States compile for the consultation process with FirstNet?

The states should compile the following information:

- A comprehensive list of vertical assets, including commercial, state owned, assets owned by political subdivisions within the state.
- It would also be helpful to compile a list of potential vertical assets. In rural areas there are often existing structures that could be used as a tower facility, such as water towers, grain elevators, and other structures of substantial height or elevation.
- A list of state owned IP transport assets and related network equipment
  - o Identify key facilities, redundancy
  - o Identify POP's to the Internet
- A count of the number of responders / field staff that each agency in the state has
  - o A count of field staff that is typically operational during a normal day, and during recent emergencies
- A count of the number of users currently using a low bandwidth Mobile Data Terminal system (MDT)
- Information on commercial wireless networks
  - o Coverage and speeds
  - o Location of assets
- Identification of priority structure within the state's users/agencies

- b. Should this activity be covered by the State and Local Implementation grant program?

Yes, state and local entities have a high degree of familiarity with the critical assets, areas of likely use, and command/operational structure within the state. It is natural to perform the information gathering at this level.

It will be important for the grant to fund these activities and also to consider the staffing requirements to carry out this planning. We believe that it will be important to have a dedicated program manager staffed at the state level to oversee the planning efforts. This program will also require significant project management resources and may also require providing compensation to local and regional agency representatives for their time allocated to the planning activities. Temporary contracted staffing will also likely be a requirement to achieving the goals of the planning grants.

There needs to be enough flexibility within the grant program to allow each state to staff and gather the required information in a manner that is appropriate and efficient for their situation.

2. The Act requires that each State certify in its application for grant funds that the State has designated a single officer or governmental body to serve as the coordinator of implementation of the grant funds.<sup>6</sup>

a. Who might serve in the role as a single officer within the State and will it or should it vary for each State?

By state statute, under the direction of the CIO's Office, North Dakota's IP network resources are consolidated within the CIO's Office. Because of this, we believe that the CIO's Office would be the most appropriate body to manage the grant's coordination and implementation for North Dakota. We do not believe this will be the same within each state, depending on the nature of the where the responsibility for a state's public safety IP communications infrastructure is centered, there will be varying officers/departments that would be most appropriate for each state.

b. Who might serve on the governmental body (e.g., public partners, private partners, technical experts, Chief Information Officers, SWIC, finance officials, or legal experts)?

The makeup of a governmental body should consist of leaders to represent the stakeholders involved, both from a state and local level. Currently, our state's Statewide Interoperability Executive Committee (SIEC) provides representation of the following: ND Department of Emergency Services; ND Division of State Radio; ND 911 Association; ND Department of Transportation; Sheriffs and Police Chiefs Associations; ND Highway Patrol; ND Division of Homeland Security; ND National Guard; ND Emergency Medical Services Association; ND Fire Chiefs Association. Tribal governments have been included by representation of the Bureau of Indian Affairs, Tribal Emergency Management, and Indian Health Services leadership. North Dakota intends to add the State CIO's Office to this board to provide complete stakeholder representation through the SIEC.

- b. How should the States plan to involve the local entities in the State and Local Implementation grant program?

We believe that each county and tribal region should designate a responsible representative to report to the governance board as well as help to facilitate any information gathering within their territory. This person would represent the various stakeholders within their counties boundaries.

Once a governance structure is established and county representatives are determined, there should be a process of meetings to provide input to the governance board. This would help to provide a method for input to be gathered at local levels and to be quickly relayed up to the governance board.

- d. How should the States plan to involve the tribal entities in the grant program?

Leaders from these entities should be included in the group and individual assessment meetings. Each tribal region should also be able to designate a representative to report to the governmental board. It will be of particular importance to have individual meetings held in the three tribal regions within ND.

- e. What requirements should be included in the grant program to ensure that local and tribal public safety entities are able to participate in the planning process?

It will be important to allow for funding to be allocated to compensating local officials who are participating in information gathering activities. Often, these local officials have a large number of other commitments and responsibilities. It will help improve their ability to participate if some compensation is available.

It will also be important to allow for funding participation by local or regional entities. If these entities have additional needs, it would be beneficial to allow them to contribute funds to enhance the activities in their areas.

- f. How should the State and Local Implementation grant program ensure that all public safety disciplines (e.g., police, sheriffs, fire, and EMS) have input into the State consultation process?

By allowing each region to designate a representative and by interfacing with the SIEC, many of the public safety disciplines will have strong representation.

g. How should the State and Local Implementation grant program define regional (e.g., interstate or intrastate) and how might the grant program be structured to facilitate regional participation through the States?

Regional intrastate definitions are most likely best defined with counties being the typical unit of representation. In areas with large cities or metropolitan areas, it could be appropriate to have representation separated from the county level.

It will be very important for each state to coordinate with their neighbor states during planning and implementation phases. Assets from one state will very likely be useable in a neighboring state. There is a great chance for cost savings if states are able to pool and share existing assets.

It is also very important to evaluate national border considerations. There are examples of U.S. and Canadian entities that respond to emergencies in the other countries territory. There are pre-existing arrangements to help coordinate the LMR and CAD systems in these arrangements. There needs to be flexibility to allow for expansion of these arrangements to cover this broadband network.

h. How should States plan to involve the Federal users and entities located within their States in the grant program?

This can be accomplished through the relationship with the state SIEC.

3. The Act contemplates that FirstNet will consult with States regarding existing infrastructure within their boundaries, tower placements, and network coverage, which FirstNet can use to develop the requests for proposals called for by the Act. The States, however, will need time and funding to collect the necessary information before they are ready to consult with FirstNet.

a. Given these interrelated activities, how should the State and Local Implementation grant program be used by States to assist in gathering the information to consult with FirstNet?

The grant should be used to fund information gathering and aggregation at the state level. Often, it can be somewhat challenging to receive full participation in these types of information gathering exercises. It may be helpful to allow a small level of compensation to be provided to local and other agencies to assist in preparing requested information.

There will be a considerable amount of travel involved in planning and there will likely be some specialized equipment needed for some tasks as well. The

grant should also be allowed to fund travel and equipment used to support information gathering and fund the planning activities of the SIEC.

b. Should consistent standards and processes be used by all States to gather this information? If so, how should those policies and standards be established? What should those policies and standards be?

Yes. Considering there will be a variety of information gathered and reported, there needs to be consistent standards to define both the collection and reporting activities. This should include GIS databases, IP assets, vertical assets, and datacenter assets.

c. What time period should NTIA consider for States to perform activities allowed under the grant program as it relates to gathering the information to consult with FirstNet? Existing Public Safety Governance and Planning Authorities

Once standards are defined for the information being gathered and the reporting format, then we expect that North Dakota would be able to complete the planning activities within 6-12 months. Staffing could become an issue though, there will need to be adequate notice to the states to allow the hiring and contract processes to be carried out.

4. Over the years, States have invested resources to conduct planning and to create governance structures around interoperable communications focused primarily on Land Mobile Radio (LMR) voice communications, including the Statewide Interoperability Coordinators (SWIC) and Statewide Interoperability Governing Bodies (SIGB), often called Statewide Interoperability Executive Committees (SIEC).

a. What is the current role of these existing governance structures in the planning and development of wireless public safety broadband networks?

Currently North Dakota's SIEC and the states 700 and 800MHz boards to handle coordination of the LMR systems. Currently the State CIO's Office has assisted in integrating these systems to IP networks. Leaders from both departments coordinate through a third committed for Emergency Services Communications Coordination to ensure that initiatives are done in coordination with each other.

b. What actions have the States' governance structures (e.g., SWIC, SIGB, or SIEC) taken to begin planning for the implementation of the nationwide public safety broadband network?

The State CIO's Office has been managing the SBI program, and leveraging some of the planning efforts within this grant to serve as a foundation for an

Anchor and Asset inventory that can be used for a variety of public safety purposes. Additionally, the CIO's Office has been carrying out an NG 9-1-1 pilot using the state's IP network to connect two PSAP's. Various members and support staff of the State CIO's Office and DES have participated in public meetings regarding FirstNet to gather details relevant to each department's area of expertise.

Additionally the state's SIEC board has set up planning meeting for members to begin analyzing the roadmap for FirstNet.

c. Can these existing governance structures be used for the PSBN, and if so, how might they need to change or evolve to handle issues associated with broadband access through the Long Term Evolution (LTE) technology platform?

These structures provide a great deal of the needed input for planning. They already are composed mostly of the responder entities that will be using FirstNet.

North Dakota intends to enhance the technology oversight of the SIEC by adding a representative from the State CIO's Office. With this representation added, the SIEC will be a straightforward model to use for the State's planning activities.

d. What is or should be the role of the Statewide Communications Interoperability Plans (SCIPs) in a State's planning efforts for the nationwide public safety broadband network?

North Dakota's SCIP is being updated to include broadband planning.

e. What actions do the States need to take to update the SCIPs to include broadband?

North Dakota's SCIP is being updated to include broadband planning.

f. Should the costs to change or evolve existing governance and Statewide Plans be eligible in the new program?

Yes. There will be significant travel and meeting expenses as a result of the planning efforts. The grant should be able to cover these costs.

g. Should the maintenance of those existing governance bodies and plans be eligible in State and Local Implementation grant program?

We believe it makes sense to allow the grant to fund additional workload that existing bodies undertake to accomplish the planning activities. Existing activities that these bodies carry out should not be funded by the grant.

5. How should States and local jurisdictions best leverage their existing infrastructure assets and resources for use and integration with the nationwide public safety broadband network?

a. How should States and local jurisdictions plan to use and/or determine the suitability of their existing infrastructure and equipment for integration into the public safety broadband network?

We believe that leveraging existing infrastructure will be a key to providing adequate coverage throughout a rural state such as North Dakota. The state has put forward significant effort and investment in creating a consolidated government network.

There will need to be location specific planning to evaluate the suitability of the facilities and IP connectivity for each site to be capable of serving public safety grade purposes.

Clear standards will be critical to properly evaluate the suitability of existing infrastructure or to plan for the enhancement of existing assets.

b. What technical resources do States have available to assist with deployment of the nationwide public safety broadband network?

At the state level, North Dakota maintains 300 full time staff dedicated to Information Technology. This staff supports the consolidated IP network infrastructure for the entire state, and local political subdivisions. The state also maintains a field service staff for the complete maintenance of it's statewide radio tower facilities. There are also considerable resources within the state and local level.

c. How will States include utilities or other interested third parties in their planning activities?

North Dakota's consolidated Government IP network is structured in a public private partnership model, so there are already many existing relationships and agreements established with utility and telecommunications companies within the state.

Additionally, governance of all State entities is done via open meetings that are regularly attended by representatives from utility and other private industry.



d. Should NTIA encourage planning for the formation and use of public/private partnerships in the deployment of the nationwide public safety broadband network? If so, how?

North Dakota has operated using a public/private partnership model for the past 12 years. This model has been highly successful in allowing the state to extend modern IP services to the most rural areas of the state, and also helped to standardize the rates for delivery of these services. We strongly feel that this is the best model to pursue when deploying FirstNet within North Dakota.

States should be allowed to pursue public private partnerships to serve the needs for IP transport, vertical assets, datacenter resources, as well as maintenance of these components. It will be critical to have clear requirements defined for these components for planning to be successful.

North Dakota feels very strongly that there should not be a build out of a new network to serve our state. We have seen numerous examples of how public private partnerships are much more effective within our rural geography. We believe that the needs of FirstNet could be much better met in North Dakota by evaluating and enhancing the State's current IP network.

6. Section 6206(b)(1)(B) of the Act directs FirstNet to issue open, transparent, and competitive requests for proposals (RFPs) to private sector entities for the purposes of building, operating, and maintaining the network. How can Federal, State, tribal, and local infrastructure get incorporated into this model?

a. How would States plan for this integration?

North Dakota is already familiar with creating RFP's for private sector entities or other governmental entities to purchase off of. We are also familiar with purchasing off of larger regional contract mechanisms such as WISCA.

b. Should States serve as clearinghouses or one-stop shops where entities bidding to build and operate portions of the FirstNet network can obtain access to resources such as towers and backhaul networks? If so, what would be involved in setting up such clearinghouses?

We believe that states should have the choice to purchase from a Federal contract or to engage in a local level contract to supply specific needs of FirstNet within our state. We are more in touch with what local resources are available and have already established relationships and competitive rates with these providers. We believe that very large Federal contracts could end

up subcontracted to local resources, so it would make more sense for the State to directly engage these resources.

c. Should setting up a clearinghouse be an eligible cost of the grant program?  
State and Local Implementation Grant Activities

Yes, as long as there are clear standards for establishing and maintaining this clearing house are defined, the funds should be eligible for this purpose.

7. What are some of the best practices, if any, from existing telecommunications or public safety grant programs that NTIA should consider adopting for the State and Local Implementation grant program?

The SBI program has done a good job of establishing common standards for data collection and reporting and the HSGP and PSIC grants have provided good flexibility for funds allocation. We believe it makes sense to model the planning grant after these structures.

8. What type of activities should be allowable under the State and Local Implementation grant program?

One area we feel should not be overlooked when planning for FirstNet is adoption. Planning for infrastructure build out and maintenance is obviously critical, however without proper attention paid to user education and technology integration, we do not feel the network will be utilized to its fullest potential. With a funding model that appears to be highly dependent on user generated revenues, adoption will likely be one of the most critical factors to the success of FirstNet.

We feel the planning grants should be allowed to establish a limited pilot project to be used for demonstrations and technology integration planning by the state's agencies. We believe that a limited pilot of 1-2 base stations would provide the necessary tools to better educate our State's agencies and allow them to better plan and budget for the technologies they will use the network for. One of our state's Law Enforcement leaders provided a response to our survey that helps to frame the challenges they face:

*"In order to fully evaluate all technologies available to provide remote access it is necessary to deploy some of the systems in a limited fashion. Some of the technologies are difficult and expensive to deploy which limits our ability to fully evaluate all options."* – James Shanks, Lake Region Law Enforcement Center, Devils Lake, ND

In addition to education related activities, the program will need resources available to cover staffing, contractual resources, travel, and compensation of local, regional, and state agency representatives involved in the planning activities. Each of these

participants have budget challenges and have often reduced resources, they will need some way to boost the quality of participation they can contribute.

9. What types of costs should be eligible for funding under the State and Local Implementation grant program (e.g., personnel, planning meetings, development/upgrades of plans, or assessments)?

a. Should data gathering on current broadband and mobile data infrastructure be considered an allowable cost?

It seems relevant to allow evaluation of existing broadband assets (fixed and mobile) to be allowed as part of the grant. However, we are concerned about the duplication of data and the effort involved in gathering and reporting this data. We feel the SBI program tools currently in place can be modified to add support for PSBN related asset inventories and coverage data, if clear standards are defined for these activities.

We feel it will be much more cost and time effective to be able to evaluate upgrading of existing IP and tower assets to meet the needs of FirstNet vs. planning for a new build out. Given our state's large geography, it is critical to be able to leverage existing assets.

The program will also need resources available to cover staffing, contractual resources, travel, and compensation of local, regional, and state agency representatives involved in the planning activities. Each of these participants have budget challenges and have often reduced resources, they will need some way to boost the quality of participation they can contribute.

b. Should the State and Local Implementation grant program fund any new positions at the State, local, or tribal level that may be needed to support the work to plan for the nationwide public safety broadband network? If so, what, if any, restrictions should NTIA consider placing on the scope of hiring and the type of positions that may be funded under the grant program?

We believe that it will be important to have a dedicated program manager staffed at the state level to oversee the planning efforts. This is a requirement by North Dakota law for all large projects. This program will also require significant project management resources as well. We believe that the grant should provide the state with the flexibility to determine which resources could be staffed internally and which should be contracted. It can often be challenging to hire new positions because of legislative cycles – advance notice of staffing requirements for the grant program will be critical.

10. What factors should NTIA consider in prioritizing grants for activities that ensure coverage in rural as well as urban areas?

It will be important for the NTIA to consider the potential use cases in rural areas. Emergencies in these areas are often not confined to the established roadways. Flooding and fires typically affect areas well outside of these areas, and can pose significant risk to critical utility infrastructure.

It will also be important to consider the types of technologies that could be used in rural areas; small cells, repeaters, and high powered vehicular devices could all be used to enhance coverage in a more cost effective manner in rural areas. Thorough evaluation and vetting of these technologies could help to provide a much better rural network presence.

11. Are there best practices used in other telecommunications or public safety grant programs to ensure investments in rural areas that could be used in the State and Local Implementation grant program?

The SIEC has demonstrated a successful model for cooperation between Federal, State, and Private entities.

12. In 2009, NTIA launched the State Broadband Initiative (SBI) grant program to facilitate the integration of broadband and information technology into state and local economies.

a. Do States envision SBI state designated entities participating or assisting this new State and Local Implementation grant program?

Yes. Within North Dakota, the SBI program is managed by the CIO's Office. There are very significant areas of overlap between what the SBI program has accomplished and the needs of the PSBN planning activities will entail. The SBI program serves as an excellent foundation for the PSBN planning.

North Dakota's SBI program has developed several resources that can be easily transitioned into PSBN planning tools. We are currently creating a mapped inventory of the State's entire IP network core and endpoints. We are also creating an inventory of all vertical assets within the state, both in use and potential sites.

A significant portion of North Dakota's SBI program was allocated to strategic planning for Public Safety and Health network needs. These efforts will serve as a jump start for North Dakota to continue planning for FirstNet.

b. How can the SBI state designated entities work with States in planning for the nationwide public safety broadband network?

The State CIO's Office will be added to the State's SIEC to help integrate the information and relationships built through the life of the SBI program.

13. What outcomes should be achieved by the State and Local Implementation grant program?

This will be entirely dependent on the standards set for data collection. Loosely, the goal is to gather as much information as quickly as possible. Without standards defining what the information gathering is targeting, it is hard to define outcomes or goals.

- a. Are there data that the States and local jurisdictions should deliver to document the outcomes of the grant program?

This should be a function of the standards developed. If clear standards are provided, then outcomes should be very easy to measure.

- b. If so, how should they be measured?

This should be a function of the standards developed. If clear standards are provided, then outcomes should be very easy to measure.

- c. Who should collect this information and in what format?

There should be a standard, online reporting format. This format will depend on the information requested.

- c. What data already exist and what new data could be gathered as part of the program?

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14. The U.S. Department of Homeland Security's Office of Emergency Communications (OEC) has developed the following tools through its Technical Assistance Program available at <http://www.publicsafetytools.info>, including:

- (1) Mobile Data Usage and Survey Tool—Survey process to document the current-state mobile data environment, in preparation for a migration to LTE;*
- (2) Statewide Broadband Planning Tool—Template and support on Statewide strategic broadband planning issues designed to serve as an addendum to the SCIP;*
- (3) Frequency Mapping Tool—Graphical tool to display FCC license information and locations including cellular sites within a jurisdiction; and*
- (4) Communications Assets Survey and Mapping Tool (CASM)—Data collection and analysis tool for existing land mobile radio assets.*

Should States be encouraged to utilize tools and support available from Federal programs such as those developed by OEC? Are there other programs or tools that should be considered?

Our evaluation of these tools has shown that there is incomplete information for our state, specifically the Frequency Mapping Tool's list of cellular towers. These tools should provide a good source of data to seed a new data set and to compare other data sources against.

15. Do the States have a preferred methodology for NTIA to use to distribute the grant funds available under the State and Local Implementation grant program?

a. Should NTIA consider allocating the grant funds based on population?

While population is one important metric for evaluating the funding needed for each state's planning, we also believe that there are other metrics that should be evaluated to determine funding levels.

b. What other targeted allocation methods might be appropriate to use?

Land area is another critical measure that should be factored into funding calculations.

We also believe that the number of international border miles is another important measure. There are greater complexities when evaluating assets near borders as well as the needs of the users in these areas.

Additionally, we feel that it is important to factor in planning efforts that will be required to serve areas that are used for energy production. These are typically large rural areas that will require exceptional coverage and performance.

Last, we believe it is important to consider the amount of tribal lands present within each state. These areas pose unique challenges and will require additional planning efforts.

c. Should NTIA consider phasing the distribution of grant funds in the new program?

A phased approach would make sense if there were critical timelines for specific deliverables within the overall program. This could serve as a good way to ensure all states are proceeding at a pace that keeps the project on track. It also provides a good way to correct quality issues early on in the process.

However, in our past experience data processing and response time has been very slow at the Federal level. It would cause difficulties in meeting contractual obligations if funding was delayed because of phased funds distributions.

### State Funding and Performance Requirements

16. What role, if any, should the States' Chief Information Officer (CIO) or Chief Technology Officer (CTO) play in the State and Local Implementation grant program and the required consultations with FirstNet? How will these different positions interact and work with public safety officials under the State and Local Implementation grant program?

By state statute, under the direction of the State CIO's Office, North Dakota operates a consolidated IP network infrastructure for all state and political subdivision entities. We believe that the CIO's Office is the most appropriate entity to oversee the grant program.

North Dakota's CIO's Office currently provides IP transport services for all of the state's public safety agencies. It will be natural to extend these relationships into formal representation on the SIEC.

17. The Act requires that the Federal share of the cost of activities carried out under the State and Local Implementation grant program not exceed 80 percent and it gives the Assistant Secretary the authority to waive the matching requirement, in whole or in part, if good cause is shown and upon determining that the waiver is in the public interest.<sup>7</sup>As NTIA develops the State and Local Implementation grant program, what are some of the factors it should consider regarding States' ability to secure matching funds?

North Dakota's State Legislature operates on a biennium budgeting cycle. Because of this, there must be significant advance notice for the state to be able to request funding for such activities.

We will be entering a new biennium in July 2013, so any funds needed between then and Jun 2015 must be submitted for approval by August 2012.

It will also be important to try and follow similar matching structures that have been present in previous grants. This will help to speed approval within our state's legislature.

18. What public interest factors should NTIA consider when weighing whether to grant a waiver of the matching requirement of State and Local Implementation grant program?

It will be important to weigh the population vs. land area, as there will be a significantly smaller pool of resources per square mile in very large and rural states. It is also important to consider the amount of Tribal lands as well, these areas will face similar gaps between funding and land area.

19. Please provide comment on any other issues that NTIA should consider in creating the State and Local Implementation grant program, consistent with the Act's requirements.

The NTIA needs to pay special attention to integrating existing state assets that are a part of a public/private partnership. In North Dakota, we are mandated to deploy our state IP infrastructure in a public/private partnership. Legislation aside, this has been the time-proven structure for the most effective services in our state.

If there are specific deficiencies in these existing assets, the NTIA needs to be very clear as to the standards being used to evaluate their suitability. It is often much easier to upgrade or retool existing assets than it is to start from the beginning, especially in a large rural state such as North Dakota.