



**Booz Allen Hamilton's Response to
National Telecommunications and Information
Administration Request for Information**

**Development of the State and
Local Implementation Grant
Program for the Nationwide
Public Safety Broadband
Network**

Docket Number: 1205009050-1050-01

June 15, 2012

Booz | Allen | Hamilton

Booz Allen Hamilton (Booz Allen) is pleased to submit comments in response to the National Telecommunications and Information Administration's (NTIA) Request for Information (RFI) regarding *Development of the State and Local Implementation Grant Program (SLIGP) for the Nationwide Public Safety Broadband Network* (Docket No: 120509050-1050-01). Booz Allen, a leading strategy and technology consulting firm, has been actively involved in public safety communications for nearly two decades – working to modernize public safety networks, tackling the interoperability challenge, and developing deployable solutions for disaster and emergency communications. In addition, we currently support more than 15 Federal agencies in their oversight of \$40B in federal financial assistance programs. Combined, these experiences provide us perspective and insight into the challenges and potential solutions for this expansive endeavor. With such an extensive set of questions and array of stakeholders, NTIA will likely receive a significant number of comments, each with specific interests. Instead, we hope our response provides a perspective on how NTIA can best analyze the feedback it receives, define clear goals for its state and local consultation efforts, and phase its approach to achieving SLIGP objectives.

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Introduction

The Middle Class Tax Relief and Job Creation Act of 2012 (Act) created the Nationwide Public Safety Broadband Network (PSBN). The Act authorized the allocation of broadband spectrum, and approved the use of revenues from spectrum auctions, to create the PSBN -- a single, interoperable, nationwide broadband network dedicated to supporting public safety across all disciplines and levels of government. Since the release of the Public Safety Wireless Advisory Committee (PSWAC) final report on September 11, 1996 – exactly five years before the tragedy of September 11, 2001 – public safety has defined its need for more spectrum in the 700 megahertz (MHz) band. These requirements have been echoed in the lessons learned from the September 11th tragedy, and numerous other large-scale natural disasters over the past decade. These events, public safety's continued work to define and advocate for its requirements, numerous Federal efforts to address interoperability needs, and the growing technological needs of public safety combined gave momentum to support the PSBN. The Act establishes a vision for the PSBN core and radio access networks, and includes provisions for NTIA to facilitate state and local consultation. A key component of this consultation is for NTIA to establish SLIGP within the \$135M allocated from the spectrum revenue for planning and implementation activities for state, local, regional, and tribal jurisdictions. SLIGP will help ensure that the PSBN is right-sized, appropriately designed to meet public safety requirements, and if executed correctly, drives usage that will help attain network sustainability in the years ahead.

Standing up and executing SLIGP requires a complex balance between meeting statutory mandates and addressing technical and operational requirements of a yet to be fully defined network. The Act establishes an accelerated schedule (due August 2012) by which NTIA must establish the parameters and programmatic requirements of SLIGP in addition to a rapid stand up of FirstNet. Exhibit 1 highlights several potential issues, including the relatively small value

of the grant relative to the overall cost of the network; and how grants may be an imperfect mechanism to achieve such precise goals as States preparing to implement their broadband solutions. Addressing these challenges will be a critical “lens” through which NTIA defines the answers to its questions, defines SLIGP criteria, and ensures nationwide deployment and integration of state and local broadband networks.

Exhibit 1: SLIGP Challenges Require New Approaches to Providing Federal Financial Assistance

| Issue | Challenges | Considerations |
|---|--|--|
| Small Value and Long Implementation | \$135M is only 2% of anticipated network costs; annual spend could be so thin as to be ineffective if stretched over the entire 10 year period of performance allowable in the Act | Grant requirements will need to be focused, planning timeframes limited, and outcomes standardized, which may limit individual state/jurisdiction flexibility. NTIA may wish to issue grants only <i>after</i> key technical decisions have been made by FirstNet |
| Need for Integrated Technical Solution | SLIGP criteria for how states and other jurisdictions plan for PSBN deployment will be released before there are technical or operational requirements has to be developed before FirstNet’s architecture is complete to ensure plans align and integrate with a network that has yet to be designed | Implementation requires consideration of timing, accountability, reporting, coordination, and regional collaboration; combined with significant technical expertise and a testing or certification program to ensure systems align and demonstrate specific criteria such as security, coverage, reliability, resiliency, and quality of service |
| Adaptive to Recipient Planning and Deployment Decisions | States and other jurisdictions can choose to either opt-in or opt-out of the RAN which may change the nature of their projects and funding requirements | Include terms and conditions in contracts to account for state decision-making, and to track progress and compliance with the States that opt-out to ensure statutory regulations (e.g., rural considerations) are met |

A grant program is an imperfect tool to address these multi-faceted challenges, but NTIA is statutorily bound to use SLIGP to execute initial planning and data gathering activities. However, there is much flexibility at NTIA’s disposal in how it structures SLIGP to accomplish its goal. The most important decision NTIA can make is what it wants States to do with any federal financial assistance. Are grants to be used to create a plan, to collect data, or achieve another goal? Depending on NTIA’s objective, different approaches and available information can be applied to ensure state, local, tribal, and regional jurisdictions are prepared to use broadband enabled public safety services. In the following pages, we offer our perspective on the key considerations we believe NTIA should address as it develops SLIGP.

NTIA Should Design SLIGP with the End in Mind

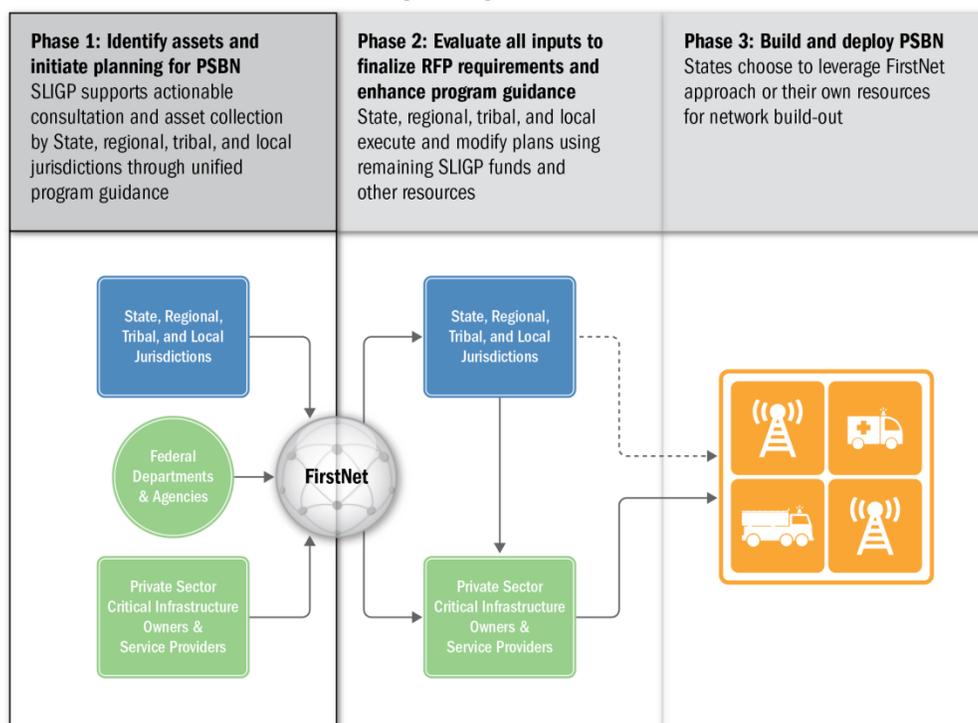
Before designing the program, NTIA needs to decide its end objectives to ensure the intended outcomes of SLIGP are obtained and integrated with FirstNet. It should also establish performance measures early in the process to track and report project success. Of the many SLIGP outcomes NTIA must consider, a top priority should be using SLIGP to ensure an

integrated RAN-level network build-out process is completed in close coordination with FirstNet planning efforts. The PSBN will rely on the inputs made to, and evaluated by, FirstNet during the next three to five years, including the aggregation of data (e.g., capability, infrastructure, requirements) to inform planning and decision-making. Currently, NTIA is mandated by statute to establish requirements for SLIGP by August 22, 2012. There are no other legislative mandates that require NTIA to issue SLIGP funds within a predetermined amount of time or establish a period of performance on the awards themselves. This is a significant benefit to NTIA. It should take full advantage of this flexibility and consider waiting until FirstNet is institutionalized and operational before allocating and distributing SLIGP funds. The benefit to this approach is tying SLIGP directly to the technical and statutorily mandated goals and requirements of FirstNet.

A Phased Approach for SLIGP Supports Alignment with FirstNet

SLIGP is a key component of the broader PSBN planning and deployment activities. Exhibit 2 below shows how SLIGP integrates with other key activities as critical inputs into building the PSBN. More specifically, the funding provided by SLIGP may only support initial data gathering and planning activities in Phase 1. These funds should be used to help ensure that state, regional, tribal, and local entities have a common understanding of the assets, capabilities, and information that FirstNet needs to collect and inventory. NTIA, in its facilitating State and local consultation between FirstNet and the broader user community, can then provide the data to FirstNet for use in both national and localized planning. The programmatic requirements put forth in SLIGP will also serve as a precedent for Phase 2 activities, including PSBN planning, development, and deployment as well as ongoing financial assistance programs that fund public safety communications. In Phase 3, States will need to determine whether to integrate with FirstNet or deploy their own portion of the radio access network.

The roll out of the PSBN will occur over a ten year period. In that time, the technology and its uses will evolve. Such challenges underscore the importance to very carefully manage the grants given the limited funding amount. NTIA will need to ensure that States understand the applicable requirements and restrictions at the outset, as either option can represent the “right” decision for a State. NTIA must also ensure that each decision ultimately ensures success from local, tribal, state, regional, and national perspectives.

Exhibit 2: Integrating SLIGP into the PSBN**Existing Public Safety Data Sources Are Useful, but Offer Limited Broadband Information**

While there is much data, only a small portion can be reused for broadband planning. The data comes in multiple forms – ranging from databases to plans and requirements documents. Existing data comes with limitations; it was collected for specific purposes and therefore may not be complete, current, or relevant. As such, there is a significant amount of data still to be collected and used to inform FirstNet activities as well as State, regional, tribal, and local PSBN efforts. NTIA is well poised to analyze and integrate the data that does exist, determine gaps of information it still needs, and align SLIGP activities to help fill those gaps. In so doing, NTIA should balance the need to minimize the burden on recipients with the need to approach this data collection as an initial step in technical design and planning, which requires discrete, actionable, and consistent information.

Assessment of What Exists in the Community Today

Over the last several years there has been considerable investment in public safety and broadband communications – from the \$1 billion PSIC grant program to the \$7.2 billion broadband development grants and loans to the more than \$3 billion in interoperability and disaster communications planning. In funding these efforts, the Federal government has required reporting to track progress, creating a rich starting point for SLIGP and PSBN planning. In addition, many Federal, state and local department and agencies have begun planning, and in some cases have already deployed, broadband networks and capabilities. Each of these efforts has generated a significant amount of data, partnerships, and leaders that should be leveraged. In addition, stakeholder groups exist across all levels of government and can provide the needed forums to gather additional data.

To help structure SLIGP, NTIA should consider an evaluation of these existing data sources and groups to build the first “baseline” of state and local public safety communications data. This is beneficial for three reasons. First, it is an efficient use of taxpayer money to prevent duplication of relevant work that has already been completed and to minimize the burden on stakeholders. Second, it will give NTIA greater fidelity into the data gaps that would need to be closed by SLIGP. Lastly, it will be an efficient use of time as it could be completed simultaneously with other elements of FirstNet planning. Together, the known gaps and emergent FirstNet requirements can be used to better structure SLIGP.

Exhibit 2: No Single Group or Data Set Has the Information SLIGP Requires

| Possible Data Source | Existing Leadership | Legacy LMR Data | Public Safety Operational Data | Broadband Specific Technical Data | Usable/ Accessible | Overall Applicability for SLIGP |
|---|--------------------------|-----------------|--------------------------------|-----------------------------------|--------------------|---------------------------------|
| Statewide Communication Interoperability Plans (SCIP) | SWIC SIEC | | | | | Med |
| Tactical Interoperability Communications Plans (TICP) | N/A | | | | | Low |
| Homeland Security Grant Program (HSGP)-related Plans | SAA | | | | | Low |
| PSIC Biannual Strategic Investment Report | SAA | | | | | Low |
| Communications Asset Survey Mapping (CASM) Tool | DHS | | | | | Med |
| FEMA DEC State Emergency Communications Plans | RECCWG; State HLS Agency | | | | | High |
| Federal Communications Planning | ECPC | | | | | Med |
| State Technology Architectures | State CIO | | | | | Low |
| NTIA – State Broadband Initiative (SBI) Mapping Data | NTIA FCC | | | | | High |
| NTIA - BTOP Public Safety Grants Progress Reports/ Data | NTIA | | | | | High |
| PSCR Technical Reports | NIST / NTIA | | | | | High |
| NPSTC Reports | NPSTC | | | | | High |
| Carrier Network Plans | Industry Assoc. | | | | | High |

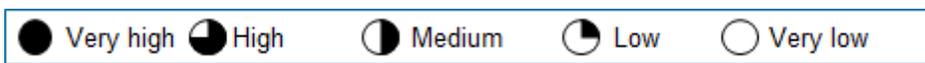


Exhibit 3 above shows our preliminary view of the utility of existing data. As depicted, the existing planning structures and data sets are disparate, typically covering only part of the data needed for state broadband planning. The data will be helpful in assessing communications capabilities and assets, but it does not provide a complete representation of the current landscape. Certain data and groups have very strong public safety knowledge and operational data – though it often focuses on legacy issues and technology like interoperability or land mobile radio (LMR), as opposed to broadband technology (e.g., long term evolution [LTE]). Similarly, no single governance or planning group can be considered the “go-to” option for planning purposes. Some groups (e.g., SWICs, SIECs) likely have the right collection of leaders in the State; however, they are inconsistently applied. For instance, not all States and territories have a SWIC or SIEC, while others have both. Other groups play equally important roles but focus on different issues (e.g., RECCWGs and operational planning data). Regarding access to broader coverage and infrastructure for industry services, NTIA may have access to some of the richest, most useful broadband data from BTOP grants and the SBI program. Although this data is robust, compiling and analyzing it will be a significant undertaking by NTIA. Only after doing so though can NTIA understand the insufficiencies of all of this information is important in identifying how SLIGP can best fill information and planning gaps.

Evaluating Alternative Funding Mechanisms for SLIGP Success

Given the complexities described above, the use of grants to facilitate planning for state and local PSBN deployment seems imperfect at best. The results of this funding will be the foundation upon which technical design and deployment of new technology will occur. This discrete, highly complex outcome differs from the typical use of grant funding in public safety agencies today where funds are often used to augment budget shortfalls, periods of performance are frequently extended with no clear delineation of project completion, and for which tangible “next steps” post-grant are not applicable. This funding for overall State and local consultation is a small but important part of the planning process. Rather than emphasizing political expediency by quickly distributing funding as is the case with many grant programs required to distribute funding quickly, NTIA will need to find the most efficient way to use these funds to help States develop enhanced public safety broadband capabilities. In so doing, NTIA can encourage participation in the national network and thus drive PSBN usage to ensure longer-term sustainability. As such, as NTIA stands up SLIGP it should evaluate a more full set of options regarding the structure, mechanisms, and proposed uses of the funds it distributes. Exhibit 4 highlights how the structure of the federal financial assistance is dependent on the purpose the funds are supposed to achieve. The benefits and limitations of each are discussed below.

Exhibit 3: Funding Approaches Would Need to Vary Based on Objectives

| | <i>If your desire is to facilitate States' planning...</i> | <i>If your desire is to collect data for use by FirstNet...</i> | <i>If your desire is to work with States on how they coordinate with FirstNet...</i> |
|-------------------------------|--|---|--|
| |  Traditional Public Safety Grant Program |  Data Collection Grant Program |  Cooperative Agreement Model |
| Mechanisms/Description | <ul style="list-style-type: none"> Up-front grant funding with minimum programmatic requirements aligned to consistent criteria | <ul style="list-style-type: none"> Grant funding to States, state-selected organization, or technical assistance provider to develop methodology and provide resources (e.g., tools, templates) for collection | <ul style="list-style-type: none"> Funding and substantial NTIA involvement/assistance in shaping how States collect information, prioritize their needs, and share with FirstNet |
| Allocation Methods | <ul style="list-style-type: none"> Equal distribution Population-based formulas Alternative formulas to account for urban and rural areas | <ul style="list-style-type: none"> Need-based per data gaps Prescriptive funding targets Population-based formulas | <ul style="list-style-type: none"> Equal distribution Prescriptive funding targets Population-based formulas |
| Key Points of Contact | <ul style="list-style-type: none"> Key State contacts and working groups (e.g., SIEC, SWIC, SAA) | <ul style="list-style-type: none"> State and regional planning groups CIO SBI grantee | <ul style="list-style-type: none"> State and regional planning groups CIO Technical assistance provider |
| Allowable Costs | <ul style="list-style-type: none"> Meetings Travel Labor time | <ul style="list-style-type: none"> Data sets Data collection mechanisms Reporting Labor time | <ul style="list-style-type: none"> Meetings Travel Data sets Data collection Labor time |
| Desired Outputs | <ul style="list-style-type: none"> Statewide broadband plan to include identified gaps towards network implementation Statewide governance charter to guide deployment | <ul style="list-style-type: none"> Nationwide requirement document State-specific requirement documents (e.g., user types, assets, network requirements, functionality) | <ul style="list-style-type: none"> Coordinated design, deployment, and operations of national backbone and RAN networks |
| Example Programs | <ul style="list-style-type: none"> PSIC IECGP | <ul style="list-style-type: none"> SBI Bureau of Justice Statistics Tribal Crime Data Collection, Analysis and Estimation Project | <ul style="list-style-type: none"> Center for Disease Control Public Health Emergency Preparedness Cooperative Agreement |

- Model 1. Traditional Public Safety Grant Program.** This model would be used to provide money directly to States to engage in a statewide planning process. The output of this approach would resemble other programs with many planning meetings and documents. Ideally, an output would include a statewide plan for how the State will collect its requirements, translate those requirements into technical designs, coordinate with FirstNet, and eventually implement its broadband deployment. Benefits of this use of funding include State-established priorities and identified gaps, seed money to initiate planning, engagement of public safety stakeholders steeped in State issues, and use of existing guidelines (e.g., SAFECOM Guidance). Challenges with this approach include disparity in the activities and outputs funded given flexible criteria that would likely accommodate all States. There is also a potential for stovepipe funded activities and outputs that may not support FirstNet needs. Planning activities may raise more issues for future consideration than they answer (e.g., discuss need for documented operational

and technical requirements as part of a strategic vision vice defining them). Further, the results of the planning will have limited shelf life, as they don't account for technology changes over time that could impact future implementation activities. Moreover, planning activities (e.g., meetings, document editing) can become heavily bureaucratic, limiting focus on the most impactful uses of public safety's time.

- **Model 2. Data Collection Grant Program.** This approach would fund data collection and updates to monitor the changes in broadband development within States as a way to facilitate FirstNet's PSBN planning. This approach provides a collective understanding of the nationwide public safety broadband landscape. Benefits include more detailed state-specific requirements, which better prepares States to align to FirstNet requirements or their own broadband deployment plans if they opt out. Challenges with this approach include the perception as a federal versus state-driven approach and potential inconsistency with the Act's intent to provide States the opportunity to use funding as they see fit for their own deployment plans (e.g., if they opt out). Further, NTIA would need to know what data and requirements to collect up front (e.g., user types, assets, network requirements and functionality) and be prepared to help manage any inconsistency in the methodologies used across States, which could lead to insufficient national-level data. It will be important for NTIA to also consider how it can encourage States to collect data on a recurring basis to keep current with PSBN, technology, and user needs.
- **Model 3. Cooperative Agreement Approach.** This model would fund States to collect data, form working groups, and prepare for deployment of their broadband initiatives with substantial involvement and assistance from NTIA. Cooperative agreements would provide NTIA with a more formal "agreement" with States and an increased ability to engage in States' activities. Cooperative agreements would also allow NTIA to more actively monitor, provide technical assistance, and participate in State and local projects. Benefits of this approach include an ability for NTIA to be more involved in shaping the direction States pursue to fill their broadband needs; collect data to share with FirstNet iteratively; greater assistance for States to execute their data collection and planning efforts; increased NTIA awareness of trends, issues, and successes that States experience; and greater ability for NTIA to encourage and facilitate regional planning. Challenges with this approach include the need for dedicated NTIA resources, recipient perception of too much federal involvement, and unlikely acceptance of federal resources by States inclined to opt out.

However NTIA designs SLIGP funding mechanisms, the issue to be addressed first remains a clear articulation for what NTIA hopes to accomplish with the grant funds. These approaches and a combination thereof can only then be designed to help NTIA and its recipients achieve that goal.

Conclusion

Booz Allen appreciates the opportunity to file comments on this important issue. Although NTIA is under statutorily mandated deadlines, we encourage NTIA to take a deliberate approach at the outset and structure SLGIP so that it achieves the long-term success of supporting FirstNet and the deployment of the PSBN. The construction and deployment of the PSBN will be a great undertaking and new perspectives and approaches will be required. We look forward to supporting NTIA, the Federal Government, and the public safety community as they work together on these efforts. We welcome the opportunity to further discuss the ideas presented within our response.