State of New York responses to NTIA's *Request For Information* on the Development of the State and Local Implementation Grant Program for the Nationwide Public Safety Broadband Network

Docket No: 120509050–1050–01

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The State of New York, Division of Homeland Security and Emergency Services (DHSES) is responding to the NTIA's request for information on the Development of the State and Local Implementation Grant Program. The agency is headed by Jerome M. Hauer, appointed as DHSES Commissioner by Governor Andrew Cuomo in November 2011. DHSES is comprised of five offices; the Office of Counter Terrorism, the Office of Emergency Management, the Office of Cyber Security, the Office of Interoperable Emergency Communications, and the Office of Fire Prevention and Control. Two of these offices, the Office of Interoperable and Emergency Communications (OIEC) and the Office of Cyber Security (OCS) are already actively engaged in projects that relate directly to the FirstNet initiative. The responses below have been compiled based on their experience and expertise in broadband initiatives.

OIEC is responsible for interoperable and emergency communications in New York State and is the successor office to an earlier effort by the State of New York to build a statewide network for land mobile radio (LMR) emergency communications. Although this earlier project was not completed, much of the work carried out for that project should support FirstNet and leverage our experience in system design and governance. Since 2011, OIEC has been managing a grant program to provide interoperable communication grants to counties, in addition to updating the Statewide Communications Interoperability Plan (SCIP) and supporting operational and response communications for DHSES.

OCS is the designated entity for New York in the State Broadband Initiatives (SBI) program and has been conducting the broadband availability mapping and other SBI projects. In this capacity, OCS is has established strong working relationships with both NTIA and broadband provider companies operating within the state. OCS carries out the broadband mapping directly, rather than through contracted services, and therefore is well versed in all aspects of the SBI program.

On behalf of Commissioner Hauer, we are pleased to provide the following responses for your consideration.

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?

DHSES believes that the consultation process as outlined in the legislation will require complete and up-to-date data to ensure that the FirstNet initiative proceeds with factual information. We envision gathering the following data:

- Complete GIS-based inventory of state and locally owned assets available for use by FirstNet contractors, including:
    - Tower sites, including details such as condition, structural, and environmental status
    - Backhaul networks (fiber, microwave), including both constructed and planned
    - Data Centers
    - Other relevant network infrastructure
- GIS-based inventory of all State-owned lands that can be made available for tower siting and other FirstNet deployment requirements. FirstNet should consider that tower siting issues may be a regional/multi-state issue as well.
- GIS-based inventory of all PSAP locations; police, fire, and EMS dispatch sites and service areas (defined Emergency Service Zones); State OEM regions, stockpiles, and assets.
- Address location data needed for geocoding and dispatch
- GIS-based inventory of significant population characteristics including defined urban and rural areas.
- GIS-based inventory of public broadband coverage areas, including areas currently unserved and underserved, to assist the State in prioritizing backhaul investments that can bring broadband to unserved or underserved areas in addition to providing backhaul capacity for FirstNet.
- GIS-based inventory of critical infrastructure assets across the State.
- GIS-based inventory of currently funded (via BTOP, BIP, state and local funds) broadband infrastructure projects.
- GIS-based inventory of State economic development –funded projects and priorities to ensure maximum opportunity to leverage publicly funded projects for use in the FirstNet implementation.

DHSES is well positioned to gather this information. As mentioned previously, the State has already gained substantial experience in gathering data to support network design.

b. Should this activity be covered by the State and Local Implementation grant program?
We believe that data acquisition should be covered by the grant. Many states lack the state and local resources to collect this data. We urge the NTIA to set grant criteria so that existing state GIS resources are leveraged and to avoid wasteful redundant data acquisitions using grant funds.

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.
a. Who might serve in the role as a single officer within the State and will it or should it vary 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)?
c. How should the States plan to involve the local entities in the State and Local Implementation grant program?
d. How should the States plan to involve the tribal entities in the grant program?

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?

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?

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?

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

In New York we expect to recommend that the Commissioner of DHSES, Jerome M. Hauer, will serve as the single officer for the State with the ability to delegate responsibilities to other DHSES agency staff at his discretion. We suggest that the determination of who should serve in this role rest with the Governor in each state, as each state is unique, with public safety, broadband and LMR responsibilities in different offices.

New York State currently has two active interoperable communications boards/working groups. The Statewide Interoperable and Emergency Communications Board (SIEC Board) and the Communications and Interoperability Working Group (CIWG). The SIEC Board, a formal board created in State legislation, provides governance and recommendations for land mobile radio and 911 standards. The Board consists of a mix of 25 appointed and ex-officio members from across the State who meet at least four times per year. The Board is chaired by the Statewide Interoperability Coordinator (SWIC).

The CIWG is a working group of over 30 State, local, Federal and tribal communications practitioners who review the technical aspects of communications challenges and proposed solutions. This group consists of members with diverse expertise from many disciplines, including 911 coordinators, state law enforcement, county and city law enforcement, fire coordinators, emergency management, military, and the emergency medical service. The State believes this model of two entities is a best practice. We intend to continue using these groups and to expand their responsibilities to include public safety broadband.

We believe that by having local and tribal representation in the CIWG we will be able to involve them fully in the process in a "steering committee" capacity. Additionally, in New York there are multiple regional communication consortiums consisting of adjoining counties with common communications and interoperability needs. The addition of these consortiums to the process will further strengthen county and local representation. Based on our experience with other grant programs, we recommend that this grant program not allow subawards to county, local and tribal entities, as this will add greatly to the grant administration burden and is likely to result in "silos" of information rather than a well-coordinated plan.

We encourage the NTIA and FirstNet to guide the *inter*state and international coordination and planning and to provide the states with information on addressing cross border issues. FirstNet will be well positioned to provide this interstate and international guidance.

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?

New York will propose to use grant funds to assemble a GIS-based data inventory as described in our response to Question #1. Substantial amounts of the data needed for this FirstNet inventory are already available, in whole or part, from existing GIS activities already carried out by DHSES, including broadband mapping under the SBI program and ongoing GIS in support of the agency's programs. This data will be updated as required and supplemented with additional data gathered for this project.

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?

GIS data gathered for this activity should be made available in open standards such as KML or other non-proprietary formats and served via open web mapping standards such as the Open Geospatial Consortium Web Mapping Standard (WMS). The data format and publishing standards employed by the NTIA and the FCC for the public-facing National Broadband Map (www.broadbandmap.gov) provide an excellent model for consideration in the FirstNet program.

Use of licensed data should be avoided whenever unrestricted data is available. If licensed data is used, license provisions should include the ability to publicly expose the data, such as in an interactive web mapping site, unless the data is sensitive or is protected from disclosure by statute.

Transparency and accountability on a large project like FirstNet will be enhanced by making information publicly available. To that end, FirstNet grant funds should be invested in data that can be published openly (where appropriate, given public safety considerations of sensitive information) and reused for other related purposes. Some of the data identified in our response to Question #1.a. is useful not only for FirstNet planning and emergency dispatch, but can also support more efficient school bus routing, property tax administration, public-access broadband planning, and other public purposes.

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?

New York recommends that various activities allowed under the grant be phased in synchronization with FirstNet deployment plans. For example, compiling data should be phased early in the grant to ensure that the State can use the data during the consultation phase. Other activities can be phased over the life of the grant, with the total performance period of the grant lasting for the duration of the FirstNet deployment schedule.

Existing Public Safety Governance and Planning Authorities
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?

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?

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?

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?

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

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

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

As we detailed in our response to Question #2, New York intends to continue to maintain the SIEC/SWIC structure, and will expand their scopes to include public safety broadband. We stress that NTIA and DHS must continue to invest in these governance structures, instead of dismantling and starting fresh. The loss of institutional knowledge and working relationships would be detrimental to the FirstNet initiative. It would be beneficial to the States for FirstNet to create training sessions and educational material for not just the SIEC/SWIC, but all public safety decision makers.

Leveraging Existing Infrastructure

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?

New York recommends that grant funds be directed to developing a complete inventory of state and local infrastructure and equipment and that this inventory is made available for FirstNet contractors via the RFP process. Using this inventory, in a national standardized format, contractors can determine which state and local elements to incorporate into their FirstNet construction bids. The determination of suitability of the individual state and local assets is best left to the discretion of contactors as they determine the most cost-effective manner to build FirstNet. For this reason, the inventory of state and local assets should include all eligible infrastructure and equipment.

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

Technical resources of States vary, although most States are experiencing staffing limitations over the past several years. While States can be of valuable assistance with respect to local knowledge, it is essential that FirstNet provide sufficient experienced technical resources to complete a network build-out either directly or via the grant program.

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

New York has had a good experience working with broadband providers (many of them are cable and telco utilities) for the SBI program. Additionally, New York has a Governor's Broadband Development and Deployment Council created by Executive Order #22. This Council includes representation from utilities. We suggest that councils such as this one be incorporated into the public safety governance structures that many States have established.

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?

New York believes that FirstNet is a public asset and that controlling interest in how FirstNet is planned and deployed in the states should be in the government sector, where it is fully accountable to the public it serves. The governance models developed by the States for their management of FirstNet can and should include the private sector. However, the controlling interest and security for FirstNet at the State level should be handled solely within the public sector to avoid potential conflicts of interest with the private partners.

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?

Through the data we proposed collecting in our response to Question #1, we will have created a database of public assets in the State that could be potentially utilized for FirstNet. Appropriate data would then be available for the FirstNet design process.

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?

New York believes that the clearinghouse function is a appropriate and necessary. We believe that virtually all states already have GIS clearinghouses for sharing data with other GIS users and the public. The data described in our response to Question #1 would logically be distributed on these clearinghouses. New York also has a contract with Castle Tower Holding Corporation (also known as Crown Castle) that provides for a common tower construction/leasing process on State properties that FirstNet may be able to utilize through the State.

c. Should setting up a clearinghouse be an eligible cost of the grant program?

Yes, but only if a new clearinghouse is needed. We recommend that grant funding be allowed for extending the capabilities of existing State GIS clearinghouses as necessary for FirstNet, such as providing an appropriately secure, authenticated channel for releasing restricted data to eligible entities.

State and Local Implementation Grant Activities
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?

DHSES, as the State Administrative Agency (SAA) for Federal grants in New York has extensive experience with Federal grant programs. The Department of Commerce has communications grant experience that NTIA and FirstNet should utilize to their advantage. For example, prior to the announcement of the Public Safety Interoperable Communications (PSIC) grant program the Department held a conference with state and local stakeholders to explain the proposed program and gain their input. After the announcement, there were some concerns regarding certain grant program requirements and, as a result, the grant was modified to address those issues. Before the grant applications were due, regional meetings were held to address any outstanding questions.

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

We recommend that, minimally, the following activities be allowable under the grant program:
- Collection of data elements listed in our response to Question #1.
- Publishing of all non-restricted data on an interactive web mapping site to encourage the broadest stakeholder and public awareness of the FirstNet plans and to ensure maximum transparency and to develop trust that investments are being made wisely and using the best available information. Sensitive and other data restricted for public safety reasons will be made available via appropriate access controls to NTIA, FirstNet contractors, public safety agencies, and others as needed.
- Staff dedicated to the FirstNet coordination and implementation.
- Workshops, planning meetings, outreach activities, training and travel necessary to build support for FirstNet and to gather relevant stakeholder inputs in the FirstNet plans.
- Analyzing user needs.
- Planning for integration of broadband and existing Land Mobile Radio (LMR) technologies and networks.
- Services, contractual or in-house, necessary for the State to be fully prepared for the consultation phase.
- Planning for the governance of FirstNet among all participants in the State, including the governance structure, determination of priority users, user fee structure, billing mechanisms, change orders, and all other elements necessary to provision and support all stakeholders and users of FirstNet.
- User training and integration to existing radio systems and equipment.
- Project management and grant reporting, which have proven to be burdensome in the NTIA SBI program.

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?

New York believes that the costs in our answer to question #8 should be eligible. Additionally, costs should be allowable only to the extent that they do not duplicate any data gathered under the SBI program during the performance period of the SBI grants.

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?

Funding of full-time staff positions to support the FirstNet initiative will be an important element of the grants. New York believes that the grants should be flexible and allow States to fund full-time equivalent (FTE) and contracted positions.

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

New York believes that grant funding to the States should be allocated on the basis of population, as explained in our response to Question # 15. However, we recognize that rural areas are, by definition, low in population and therefore states with large rural areas would receive proportionally smaller grant awards. The mechanism we recommend to ensure that rural areas receive necessary coverage is to impose requirements enforceable at the state level. Each state would then ensure that rural areas receive appropriate coverage priority. New York State contains large areas of very sparse population, such as the six million acre Adirondack Park, which poses substantial challenges for ensuring appropriate FirstNet coverage. Individual states are best able to determine specific areas of need within those rural areas. We are comfortable that with appropriate governance, these issues can be managed as part of the States' overall plan and strategy.

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?

New York, through its State interoperable grant program, is encouraging the development of regional systems and the consolidation of public safety answering points. This approach helps ensure that limited resources are utilized, and redundancy provided, to the maximum extent.

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?

In New York, the SBI program is being conducted in-house by the Office of Cyber Security within DHSES. We envision a strong collaborative effort among the offices of DHSES to take advantage of experience and expertise to support various elements of the FirstNet initiative. The SBI program is creating data that will be highly relevant to FirstNet. This includes not only broadband data depicting a variety of characteristics of the "broadband landscape", but also includes the development of accurate street address points being funded with SBI that will be used for next-generation 911 dispatch. SBI funds in New York are also supporting a State Broadband Programs Office via a Technical Assistance grant project. The Broadband Program Office is in the process of being realigned with the Empire State Development Corporation. We anticipate the Broadband Program Office also having a role in the FirstNet initiative so as to ensure that state funds being invested in broadband for economic

development reasons can be leveraged, as appropriate, for FirstNet benefits, and vice versa. State funding for broadband backhaul into unserved or underserved areas is an economic development priority determined by the Governor's Office. It may also provide backhaul for FirstNet. For this reason, the Program Office should be included in State FirstNet activities so that opportunities are not missed and unnecessary redundancies are not funded.

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

We recommend that States be required to include their SBI grantee in their FirstNet planning organization.

13. What outcomes should be achieved by the State and Local Implementation grant program?
a. Are there data that the States and local jurisdictions should deliver to document the outcomes of the grant program?
b. If so, how should they be measured?
c. Who should collect this information and in what format?
d. What data already exist and what new data could be gathered as part of the program?

As described in our response to Question #3, the data gathered by States in support of FirstNet should be widely published, to the maximum appropriate extent, on a publicly accessible interactive mapping site. These same data should be delivered to NTIA in a consistent format (content, data dictionary, file structure) that can be published in a national compendium, in the same manner that broadband data is being delivered under the SBI program and published on the National Broadband Map.

We further recommend that States be required to have certain minimum data elements available in support of their consultation with FirstNet. NTIA should develop and publish this list of required elements before announcing the availability of the grant funds.

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?

Tools, such as CASM, the Frequency Mapping Tool and others, are effective. We recommend development or adoption of tools that allow efficient and consistent reporting and prompt mitigation of potential interference or other network problems. In addition, we recommend development of

tools/methods that will allow accurate assessment of public safety broadband coverage and the ability to roam on commercial networks. NTIA and the proposed grant should support increased awareness and training of these and other tools, such as CASM.

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?

There are many variables impacting the costs of planning and deploying FirstNet such as total area of the State, terrain and land restrictions that impact tower placement and density, cost of real property acquisition, etc. Never the less the majority of factors impacting costs are scaled relative to population and population is a fair and reasonable measure and should be used for allocating the grant funds.

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

Many other funding formulas are possible and may be worthy of consideration, but we offer a caution that any factors used should avoid quantities that may be disputed or challenged. Using population figures published by the US Census Bureau avoids this potential pitfall.

Another allocation measure could be the total number of public safety first responders (police, fire, EMS) in a State. This is a direct measure of the FirstNet user community and theoretically scales appropriately to the equipment, traffic, demand, governance, and other factors that drive the costs to build and operate FirstNet.

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

Please see our response to Question #3.c.

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?

The State's CIO/CTO should be involved to the extent appropriate for each State, as determined by that State. In New York State, the Director of the Office for Technology is a statutorily mandated member of the State's Interoperable and Emergency Communications Board.

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. 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?

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?

In response to questions 17 and 18, DHSES encourages NTIA to waive the matching requirement for jurisdictions whenever possible, as the FirstNet program is a mandated program that most jurisdictions have not been able to budget for. Therefore all available Federal funds should be applied to assisting States. When a match is required, States should be able to use in-kind and existing assets rather than cash whenever possible.

Other
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.

New York State continues to be concerned by the 700 MHz spectrum issues that plague the northern border with Canada. Currently the 700 MHz public safety spectrum, both broadband and narrowband, are not formally aligned between the two countries. Based on the current international agreement, DHSES is unsure whether 700 MHz public safety broadband can be legally deployed with 100km of the Canadian border. We stress that the Federal Communications Commission, the United States Department of State, and the Government of Canada MUST resolve these issues as soon as possible.

NTIA should consider how States can leverage economic development funding for the construction of the network. In New York, for example, Governor Andrew Cuomo has announced $25 million in economic development funding for broadband projects in the current State fiscal year. To the extent possible, we would want State investment in broadband infrastructure to be leveraged for FirstNet. The extension of backbone fiber into unserved areas, for example, will provide capability for public broadband network expansion and can also provide backhaul capacity or redundancy to the FirstNet network. NTIA is encouraged to clarify to the States, as quickly as possible, how FirstNet assets may be used for non-FirstNet purposes, and vice versa, so that broadband investments being made now will not miss opportunities for maximum benefit. Without further guidance from NTIA, we are currently unable to determine how best to prioritize our economic development broadband funds as they relate to FirstNet.