



State Alternative Plan Program (SAPP)
Discussion of Notice of Funding Opportunity (NOFO) Issues

June 8th, 2017

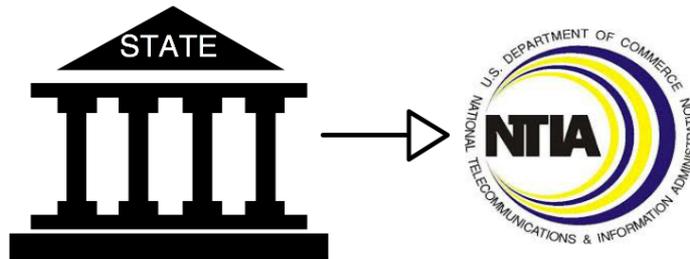
National State Plan Kickoff
Meeting
State Alternative Plan Program
(SAPP) Presentation

Overview: The SAPP Program

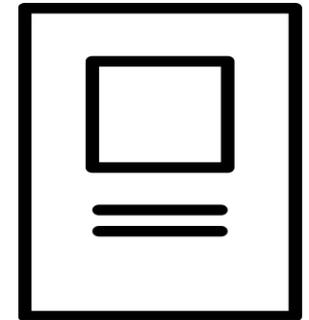
SAPP is designed for States* and territories that seek to construct, operate, maintain, and improve the Radio Access Network (RAN) in their State



States **must** apply to NTIA for the right to execute a spectrum management lease from FirstNet and they **may** apply for a grant to go towards the cost of constructing the RAN



There will be one application and set of criteria regardless of whether a State applies for one or both



*The term 'State' refers to both States and territories

SAPP Background

An Opt-Out State Assumes the Financial and Technical Burdens to Provide Broadband Service to First Responders:

- While Congress assigned FirstNet exclusive control over the core network, a State may seek approval to assume the cost and legal responsibility of building the RAN within that State. This includes:
 - Construction, maintenance, operation, and improvements.
- The State's RAN must operate seamlessly with the rest of Nationwide Public Safety Broadband Network (NPSBN).
- NTIA believes that Congress intended for opt-out states to make certain statutory demonstrations in order to ensure that the Public Safety community is well-served, regardless of whether a State opts-in or opts-out of the FirstNet NPSBN.

Statutory SAPP Demonstrations

1. The **(a)** technical capabilities to operate, and the **(b)** funding to support, the State RAN;
2. The ability to maintain ongoing interoperability with the NPSBN;
3. The ability to complete the project within specified comparable timelines specific to the State;
4. The cost-effectiveness of the State plan; and
5. Comparable **(a)** security, **(b)** coverage, and **(c)** quality of service to that of the NPSBN.

Demonstration 1.a: The Technical Capabilities to Operate

Demonstration Standard

- The State's RAN project staff has sufficient technical capability and experience, through State personnel and/or through its RAN partner, to effectively execute the RAN project; and
- The State has the necessary equipment, facilities, and other infrastructure to effectively execute the RAN project.

Demonstration 1.a: NTIA May Assess the Following Capabilities

- **LTE Wireless Broadband Network**
 - Design
 - Integration
 - Testing & Certification
 - Network Operations
 - Maintenance
- **Physical and Cyber Security**
- **Device Management**
- **Program and Business Management Capabilities**
- **Customer Care & Marketing**
- **Network Facilities**
- **Inventory Reserves and Deployables**

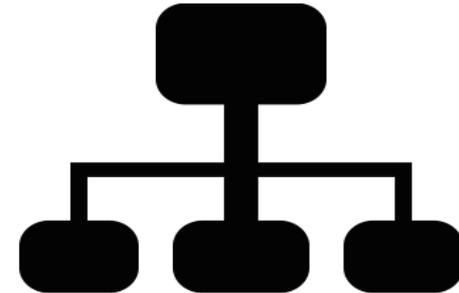
Demonstration 1.a: What May We Ask A State To Provide?



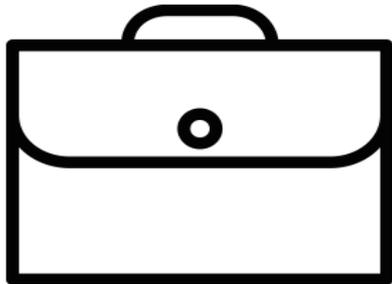
Key Personnel



Relevant Contract
Terms



Staffing Plan



Project Management
Plan



Facilities & Equipment



Past Performance
Examples

Demonstration 1.b: The Funding to Support the RAN

Demonstration Standard

- The State must demonstrate that the expected revenues from the operations of the RAN project are sufficient to cover expected expenses, including payments to FirstNet over time; and
- The State must provide sufficient rationale for revenue and expenditure assumptions, budget forecasts, risk analysis, spectrum valuation sources, and reinvestment plans to support the project budget.

Demonstration 1.b: Funding to Support the RAN

RAN Project Budget

The RAN project budget must comprehensively address all sources of revenues and expenditures for the project period, which is the same period of performance as the State's Spectrum Management Lease Agreement with FirstNet.



Expected Revenues: Management/General Operations



- Projected subscriber fees
- Partner payments back to state
- State & local appropriations, bonds
- Anticipated RAN construction funding
- Other revenue sources



Expenditures: Management/General Operations

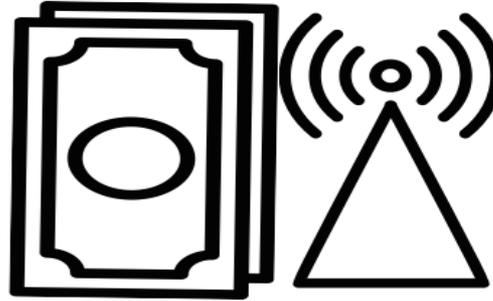


- Payments to FirstNet
- Personnel
- Contracts
- Construction
- Customer Care & Marketing
- Equipment
- Integration
- Testing & Certification
- Repairs & Maintenance
- Network Operations
- Security
- Facilities
- Reserves
- OSS/BSS

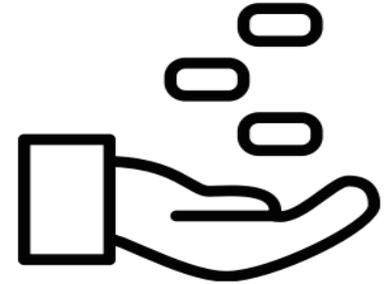
Demonstration 1.b: What May We Ask A State To Provide?



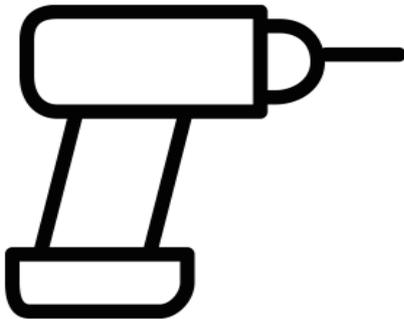
Detailed Project
Budget



Spectrum Monetization Plan &
Assumptions



Service Offerings
and Pricing



Construction Schedule



User Adoption
Assumptions

Demonstration 2: Ongoing Interoperability with the NPBSN

Demonstration Standard

- The RAN project including all User Equipment (UE) and Customer Premises Equipment (CPE), RAN, Transport, and connection to the FirstNet Interconnect Point of Presence (POP) and the FirstNet core, complies with, and will comply with in the future, all operability and interoperability requirements pursuant to:
 - All relevant terms and conditions in the FirstNet Spectrum Management Lease Agreement; and
 - All NPSBN operability and interoperability network policies.

Demonstration 2: What May We Ask A State To Provide?



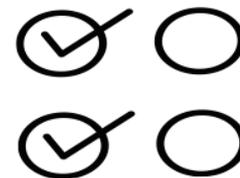
Plan for compliance
with network policies



Agreement to Comply
with FirstNet's
Network Policies



Relevant
Contract
Terms



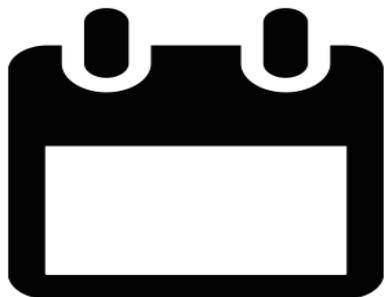
Plan for ongoing
testing and
certification (device to
device, device to
RAN, RAN to Core)

Demonstration 3: Comparable Timelines

Demonstration Standard

- The State's RAN project construction will be performed within a timeframe comparable to that detailed in the FirstNet state plan;
- The RAN project will include:
 - Incremental rural RAN project milestones in each of the first five years after the timeframe start date; and
 - Rural RAN project milestones will be comparable to those of the FirstNet State plan and that those milestones are achieved within five years of the timeframe start date; and
- The RAN will be technically consistent with the NPSBN state of evolution at the time of operation.

Demonstration 3: What May We Ask A State To Provide?



State's RAN
Construction Timeline



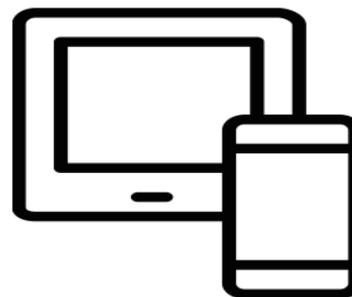
GIS Maps



RAN Project Rural
Milestones



Construction Timeline
Variance Analysis



Plan to achieve comparable feature
sets at commencement of operations

Demonstration 4: Cost-Effectiveness of the State Plan

Demonstration Standard

- The State must demonstrate that it can construct, operate, maintain and improve the state RAN for the project lifetime and provide the service public safety entities need, while also providing any required payments to FirstNet to support the NPSBN; and
- Consistent with the Middle Class Tax Relief and Job Creation Act of 2012, the state has planned to reinvest any revenues gained from its partner agreement(s) back into its RAN project.

Demonstration 4: What May We Ask A State To Provide?



Intent to sign Spectrum
Management Lease Agreement
with FirstNet



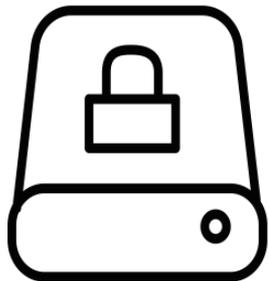
Plan for Reinvestment
in the Network

Demonstration 5.a: Comparable Security to the NPSBN

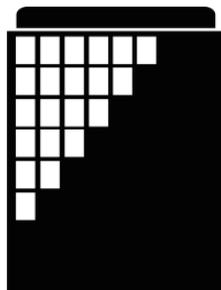
Demonstration Standard

- The State must demonstrate that it can, at technical and physical levels, provide baseline network security on par with that required for the NPSBN and in FirstNet's network policies.

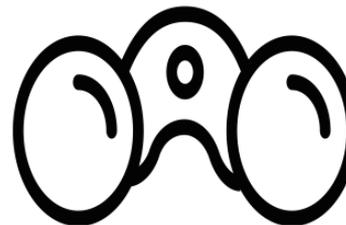
Demonstration 5.a: What May We Ask A State To Provide?



Security Configuration
Management Plan



Security Architecture
Plan



Security Monitoring
Plan



Physical Security Plan



Certification to comply with
FirstNet's Network Policies



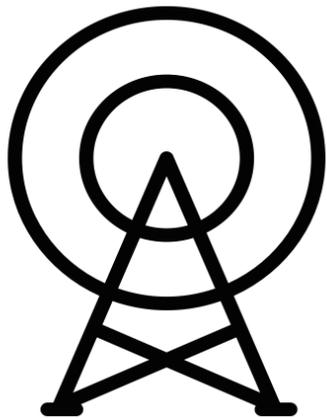
Certification to comply with
Industry Standards

Demonstration 5.b: Comparable Coverage to the NPSBN

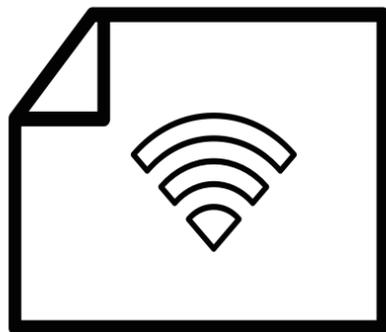
Demonstration Standard

- An applicant must demonstrate that the State-operated RAN will deliver broadband service coverage and capacity comparable to what FirstNet will provide to all public safety subscribers on the NPSBN.
- NTIA will consider the applicant's overall RAN design, spectrum use, in-building coverage, use of deployables and roaming capability.

Demonstration 5.b: What May We Ask A State To Provide?



Proposed RAN Design



Summary of Coverage Plan



Metrics demonstrating
throughput capacity



Mapping with
Coverage Layers

Demonstration 5.c: Comparable Quality of Service to the NPSBN

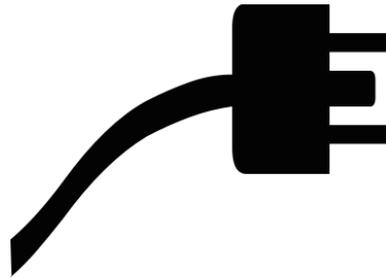
Demonstration Standard

- Public safety users on the State-operated RAN will have comparable user experiences and system reliability as public safety subscribers across the rest of the NPSBN; and
- Network performance metrics, response and resolution times related to network outages and customer service processes are comparable to the FirstNet offering.

Demonstration 5.c: What May We Ask A State To Provide?



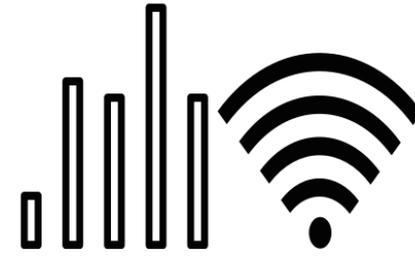
Network Performance
Contract Terms



Responding to
Outages and Issues



Help Desk and
Customer Service
Plan



Network Performance
Metrics

Application Review Process

Applications will undergo multi-step review to include administrative/compliance, technical, programmatic reviews:

1



**Administrative/Compliance
Review**

(Program Office)

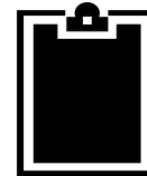
2



**Technical
Review**

(3rd Party SMEs)

3



**Programmatic
Review**

(Grants Office)

Applicants will be provided opportunities to remedy deficiencies before application is recommended for disapproval.

NTIA Assistant Secretary makes the final recommendation to the Grants Office for award.

QUESTIONS?

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