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**Question #:** 49**RFP Section Reference:** Section K.3, FAR Clauses in Full Text**Question:**

Is there a preference or requirement for equipment manufactured in the US or its territories, and what steps will be taken to ascertain and enforce the accuracy of Origin of Manufacture representations?

**Answer:**

Section K.3.2, Place of Manufacture (MAR 2015), has been deleted. Section K, Representations and Certifications, references the specific requirements, representations, and certifications related to equipment that Offerors must include as part of their proposed solution and that will be used to evaluate responsive proposals.

**RFP Change (Yes/No):**

Yes

**RFP Change Description:**

Section K is being replaced in its entirety with this Amendment 004.

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**Question #:** 76**RFP Section Reference:**

Section J, Attachment J-3, FCC TAB RMTR, Section 1.3.7, Security, and Section 1.4.8, Security  
Section L.3.2.2.6, Security

**Question:**

The RFP states, “User Domain Security shall be implemented in accordance with 3GPP TS 33.102, TS 31.101, and TS 22.022.”

Will the Authority please clarify what is meant and intended by this requirement/reference?

**Answer:**

3GPP TS specifications 33.102, 33.101, and 22.022 as indicated in Section L.3.2.2.6, Security, and in Section J, Attachment J-3, FCC TAB RMTR, Section 4.8.3, 3GPP Security Baseline, provide criteria for User Domain Security, one of the five LTE security groups of the LTE Security Architecture. User Domain Security provides the set of security features that secure access to mobile stations, including User Access to the Universal Subscriber Identity Module (USIM) (e.g., through a secret PIN) and USIM Access to the Terminal (to ensure that only authorized USIMs are used in the NPSBN).

**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A

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**Question #:** 97

**RFP Section Reference:** Section J, Attachment J-19, State Plan Template, Section A.6.2, Mission Critical Services

**Question:**

It is interpreted that “Enhanced LTE Public Safety grade voice telephony” means IMS VoLTE Service, which can include voice, SMS/MMS, and voicemail services. Can you please confirm if this is the correct interpretation of this statement?

**Answer:**

Enhanced LTE Public Safety Grade voice telephony refers to Voice over LTE (VoLTE) on a Public Safety Grade network with the added capabilities of QPP and secure applications. It may also include enhancements (as described in Section J, Attachment J-8, IOC/FOC Target Timeline, Section 3.3.2.1, Services) for 3GPP Releases 13 and 14 that are expected to be implemented by the Offeror.

**RFP Change (Yes/No):**

Yes

**RFP Change Description:**

The definition for “Enhanced LTE Public Safety Grade Voice Telephony” in Section J, Attachment J-14, Terms of Reference, is being revised in this Amendment 004 to read, “Enhanced LTE Public Safety Grade voice telephony refers to VoLTE on a Public Safety Grade network with the added capabilities of QPP and secure applications. It may also include enhancements (as described in Section J, Attachment J-8, IOC/FOC Target Timeline, Section 3.3.2.1, Services) for 3GPP Releases 13 and 14 that are expected to be implemented by the Offeror.”

**Question #:** 115

**RFP Section Reference:** Section J, Attachment J-7, Operational Architecture

**Question:**

Will FirstNet be making a complete operational architecture diagram available similar to what was provided in the draft RFP which identifies the responsibility of all tasks?

**Answer:**

No, FirstNet provided an operational architecture for FirstNet minimum responsibilities and asks Offerors to provide structure for all other responsibilities Offerors require to meet FirstNet’s objectives. Operational responsibilities will depend upon the functions identified by the Contractor (within its proposed solution) and agreement on ownership of those functions between the Contractor and FirstNet.

**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A

**Question #:** 119

**RFP Section Reference:** Section J, Attachment J-19, State Plan Template, Section 4.3.1, Persistent Coverage

**Question:**

Table 2 requests that the Contractor provide “Band 14 Network Capacity” at the County level. It is not clear exactly how this information is to be provided. [Vendor Name Deleted] suggests this metric should include:

1. Total network backhaul capacity at the county level, and
2. Maps of each county depicting areas of predicted levels of DL and UL throughput such as the five levels shown in J-17 on the sheet titled “DL\_UL Average Sector Throughput”.

Please note this comment also pertains to the Network Capacity sheet in Section J-17.

**Answer:**

Offerors shall provide Band 14 network capacity information via Section J, Attachment J-17, Coverage and Capacity Template. Proposed design capacity will be used for evaluation of all Offerors prior to award and shall be completed by Offerors as part of their proposal submission. FirstNet is looking for the air interface aggregate proposed design capacity at a county level. The proposed design capacity evaluation will be based on the summation of the entire average downlink cell throughput within the county. The backhaul strategy is addressed in a separate area of the proposal (see Section L.3.2.2.4.2, Transmission Systems Strategy).

Section J, Attachment J-19, State Plan Template, merely identifies desired elements that will be discussed to determine how these items may ultimately be included in a state plan. The maps and format required for the proposal evaluation prior to award may not be the same maps and format that will be delivered to states and territories by the Contractor post-award. As noted in Section J, Attachment J-18, Delivery Mechanism Objectives for State Plans, FirstNet’s objectives for the state plan delivery mechanism include, among many things, a method to deliver easily understood, interactive maps, as appropriate.

**RFP Change (Yes/No):**

Yes

**RFP Change Description:**

Section L.3.2.1.1.5, Band 14 Network Capacity, is being revised in this Amendment 004 to read, “... Band 14 network capacity is the aggregate proposed design capacity and is computed by summing the average downlink throughput for each cell in a given county.”

**Question #:** 124

**RFP Section Reference:** Section L.3.2.1.1.3, Band 14 Population Coverage

**Question:**

Is this where the Respondent should address the GoS Tiers referenced in Question 8?

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**Answer:**

This question states, “... referenced in Question 8.” However, this referred to the Offeror’s “Question 8.” Therefore, this answer is being provided based on Grade of Service (GoS) tiers stated within the RFP. The GoS tiers will be defined post-award between FirstNet and the Contractor within the Day 1 Task Order 2, State Plan Development and Refinement.

**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A

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**Question #:** 138

**RFP Section Reference:** Section J, Attachment J-4, Section 9.1, SV-1 Public Safety Enterprise Network Interface (Interface #7)

**Question:**

Figure 8 lists LMR as a PSEN function to be integrated over Interface #7, however Table 7 does not contain an entry for standards to be used for the LMR interface. Can the Government please clarify their intention for this?

**Answer:**

As standard interfaces are developed and adopted, they should be included with interfaces to Land Mobile Radio (LMR) systems. Section J, Attachment J-3, FCC TAB RMTR, Section 4.4.3.1, Interoperability with Land Mobile Radio Systems, states:

“Networks that provide voice service as an application should provide voice interoperability interfaces to existing agency LMR systems in the area served by the broadband network. Public Safety users on such home or visited networks should be able to call or hail an authoritative dispatch agency or control point using the broadband network subscriber device with microphone and speaker for two-way audio, and talk or be connected to other serving agency voice communications resources. Because the devices and device capabilities for this feature will develop over time, this feature may be considered a future requirement.

Recommended Considerations: (19) The NPSBN SHOULD allow for connection and operation of IP-based LMR voice interoperability gateways using open interfaces as they are developed.”

**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A

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**Question #:** 177**RFP Section Reference:**

Section L.3.2.1.3.2, Rural Coverage and Non-Rural Coverage

Section J, Attachment J-2, Nationwide and Rural Coverage Compliance Checklist

Section J, Attachment J-17, Coverage and Capacity Template, Band 14 Rural Coverage

**Question:**

Attachment J-17, Coverage and Capacity Template clearly requests Rural Coverage on a Coverage per square mile basis under Tab Band 14 Rural Coverage. In that Tab it requests for each IOC and FOC Rural Covered (sq ml) and Rural Area Covered within Coverage Objective (sq ml). Which of these items will be used by FirstNet to evaluate the 15 percent coverage requirement for rural telecommunication provider partnerships? What information in Attachment J-17, Tab Band 14 Rural Coverage (Rural Covered (sq ml) and Rural Area Covered within Coverage Objective (sq ml)) should be used in Section J, Attachment J-2, Nationwide and Rural Coverage Compliance Checklist (as required in the Capabilities Statement Pass/Fail evaluation) for the column heading “Forecasted % of Rural Coverage Met through Rural Telecommunications Providers”?

**Answer:**

Section J, Attachment J-2, Nationwide and Rural Coverage Compliance Checklist, requests the “Forecasted % of Rural Coverage Met through Rural Telecommunications Providers.” Section M.2.3.2, Rural Partners and Subcontractors, states, “The Offeror’s solution must demonstrate commitment to exercise rural telecommunications provider partnerships for at least 15 percent of the total rural coverage nationwide. While Attachment J-2 requests these data by states and territories, the 15 percent coverage factor will be evaluated on a nationwide basis only for this phase.” In both cases, the 15 percent reference is the ratio of the total nationwide rural coverage provided by rural telecommunications providers at FOC to the total nationwide rural coverage proposed by the Offeror at FOC. The total nationwide rural coverage proposed by the Offeror is captured in Section J, Attachment J-17, Coverage and Capacity Template, “Band 14 Rural Coverage” worksheet, in column AH, which is labeled “FOC – Rural Area Covered (sq mi).” Both Section M, Evaluation Factors for Award, and Section J, Attachment J-2, Nationwide and Rural Coverage Compliance Checklist, will be modified to explicitly state that this ratio is with respect to area coverage and that the requested coverage is at FOC.

**RFP Change (Yes/No):**

Yes

**RFP Change Description:**

Section J, Attachment J-2, Nationwide and Rural Coverage Compliance Checklist, is being revised in this Amendment 004 in order to change the right-most column label to “Forecasted % of Rural Coverage Area Met through Rural Telecommunications Providers at FOC.”

Section M.2.3.2, Rural Partners and Subcontractors, is being revised in this Amendment 004 to read, “The Offeror’s solution must demonstrate commitment to exercise rural telecommunications provider partnerships for at least 15 percent of the total rural coverage area nationwide at FOC. While Attachment

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J-2 requests these data by states, the 15 percent coverage factor will be evaluated on a nationwide basis only for this phase.”

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**Question #:** 184

**RFP Section Reference:** Section L.3.2.2.5.2, Business and Operational Support Systems

**Question:**

Are BSS Test Environments required, and if so for what purpose?

**Answer:**

FirstNet expects the Offeror to recommend a test strategy for Business Support Systems (BSS) that meets FirstNet’s objectives, as stated in Section C, Statement of Objectives. A proposed BSS test strategy should be defined by the Offeror in Section J, Attachment J-12, Test Strategy Template, Section 2.1.6, Operational Support System and Business Support System Test Strategy. Also, the test environments shall be defined by the Offeror in Section J, Attachment J-12, Test Strategy Template, Section 2.2, Interim Operational Capability (IOC) Test, and Section 2.3, Final Operational Capability (FOC) Test, depending on the Offeror’s test strategy and solution.

**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A

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**Question #:** 189

**RFP Section Reference:**

Section B.2, Pricing Schedules and Task Orders

Middle Class Tax Relief and Job Creation Act of 2012, Section 6302

**Question:**

The estimated award date for the IDIQ contract in Section B.2 is November 1, 2016. The estimated award date for Initial FirstNet-Deployed Ran States is April 30, 2017 (6 months post IDIQ award). Given that state plans are not required to be completed and issued until 6 months post IDIQ award (per Att. J-8), how does the April 30, 2017 date comply with the timeline for State networks presented in Section 6302 (e) of the Middle Class Tax Relief and Job Creation Act of 2012? Section 6302 (e)(2) states that Governor’s have 90 days after notice to choose whether or not to participate, so it would seem that the date for Initial FirstNet-Deployed Ran States should be 6 months post IDIQ award (when state plans are completed and issued) + 90 days.

Can the Government please clarify the timeline for task orders in regards to the timeline in Section 6302 (e) of the Middle Class Tax Relief and Job Creation Act of 2012?

**Answer:**

The Act specifies the state decision process (see 47 U.S.C. § 1442(e)), which FirstNet further interpreted in its Second Public Notice final interpretations (see Final Interpretations of Parts of the Middle Class Tax Relief and Job Creation Act of 2012, 80 Fed. Reg. 63504 (Oct. 20, 2015), <https://www.federalregister.gov/articles/2015/10/20/2015-26622/final-interpretations-of-parts-of-the-middle-class-tax-relief-and-job-creation-act-of-2012>). Delivery of state plans will depend largely upon timing of the award. Any subsequent deployment for the NPSBN will, similarly, be dependent upon state/territory decisions regarding FirstNet. Offerors should factor into their considerations any timeline around state decisions as described in the Act and interpreted in FirstNet’s Second Public Notice when responding to the RFP.

For proposal preparation and evaluation purposes, Offerors should assume that state-level task orders for Initial FirstNet-Deployed RAN States will be issued on April 30, 2017, in accordance with Section B.2, Pricing Schedules and Task Orders.

To the extent IDIQ or Initial FirstNet-Deployed RAN States task orders are delayed past April 30, 2017, Offeror-proposed IOC/FOC timelines may be adjusted on a month-for-month basis. Moreover, the timelines regarding IOC/FOC are stated as “after award,” which could apply to subsequent task orders for Delayed FirstNet-Deployed RANs.

**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A

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**Question #:** 204**RFP Section Reference:** Section L.3.2.1, Coverage and Capacity**Question:**

Can the Government please confirm that proposal data provided in the Attachment J-2 format to meet the L.3.2.1 requirement is exempt from the Volume II page limitation?

**Answer:**

No, Section J, Attachment J-2, Nationwide and Rural Coverage Compliance Checklist, is not exempt from the Technical Volume II page limitation.

**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A

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**Question #:** 205**RFP Section Reference:** Section L.3.2.2.3.1, Device Portfolio

Section J, Attachment J-11, Device Specification Template

**Question:**

Can the Government please confirm that proposal data provided in the Attachment J-11 format to meet the L.3.2.2.3.1 requirement is exempt from the Volume II page limitation?

**Answer:**

No, Section J, Attachment J-11, Device Specifications Template, is not exempt from the Technical Volume II page limitation.

**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A

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**Question #:** 206**RFP Section Reference:**

Section L.3.2.3, Test Strategy

Section J, Attachment J-12, Test Strategy Template

**Question:**

Can the Government please confirm that proposal data provided in the Attachment J-12 format to meet the L.3.2.3 requirement is exempt from the Volume II page limitation?

**Answer:**

No, Section J, Attachment J-12, Test Strategy Template, is not exempt from the Technical Volume II page limitation.

**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A



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**Question #:** 207**RFP Section Reference:**

Section L.3.2.3, Test Strategy

Section J, Attachment J-15, Contractor Furnished Equipment

**Question:**

Can the Government please confirm that proposal data provided in the Attachment J-15 format to meet the L.3.2.3 requirement is exempt from the Volume II page limitation?

**Answer:**

No, Section J, Attachment J-15, Contractor-Furnished Equipment, is not exempt from the Technical Volume II page limitation.

**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A

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**Question #:** 209**RFP Section Reference:** Section J, Attachment J-17, Coverage and Capacity Template**Question:**

If any tabs from Attachment J-17 are required as part of the hard copy submission for Volume II, are those tabs exempt from page size, header/footer, and font requirements?

**Answer:**

Yes, Amendment 002 provided additional detail on the paper size, header/footer, and font requirements.

**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A

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**Question #:** 211**RFP Section Reference:**

Section J, Attachment J-2, Nationwide and Rural Coverage Compliance Checklist

Section L.3.2.1, Coverage and Capacity

Section M.2.3.2, Rural Partners and Subcontractors

**Question:**

Can the Government please clarify how the 15 percent coverage factor for rural telecommunications provider partnerships is to be calculated? Is it determined by geographic or population coverage? Is it determined solely by areas that require persistent coverage, or does it also include areas that require On Demand Temporary coverage?

**Answer:**

Section J, Attachment J-2, Nationwide and Rural Coverage Compliance Checklist, requests the “Forecasted % of Rural Coverage Met through Rural Telecommunications Providers.” Section M.2.3.2, Rural Partners and Subcontractors, states, “The Offeror’s solution must demonstrate commitment to exercise rural telecommunications provider partnerships for at least 15 percent of the total rural coverage nationwide. While Attachment J-2 requests these data by states and territories, the 15 percent coverage factor will be evaluated on a nationwide basis only for this phase.” In both cases, the 15 percent reference is the ratio of the total nationwide rural coverage provided by rural telecommunications providers at FOC to the total nationwide rural coverage proposed by the Offeror at FOC. The total nationwide rural coverage proposed by the Offeror is captured in Section J, Attachment J-17, Coverage and Capacity Template, “Band 14 Rural Coverage” worksheet, in column AH, which is labeled “FOC – Rural Area Covered (sq mi).” Section L, Instructions, Conditions, and Notices to Offerors or Respondents; Section M, Evaluation Factors for Award; and Section J, Attachment J-2, Nationwide and Rural Coverage Compliance Checklist, will be modified to explicitly state that this ratio is with respect to area coverage and that the requested coverage is at FOC. The coverage areas referenced in the computation include all areas covered by the Offeror’s proposed solution.

**RFP Change (Yes/No):**

Yes

**RFP Change Description:**

Section J, Attachment J-2, Nationwide and Rural Coverage Compliance Checklist, is being revised in this Amendment 004 in order to change the right-most column label to “Forecasted % of Rural Coverage Area Met through Rural Telecommunications Providers at FOC.”

Section M.2.3.2, Rural Partners and Subcontractors, is being revised in this Amendment 004 to read, “The Offeror’s solution must demonstrate commitment to exercise rural telecommunications provider partnerships for at least 15 percent of the total rural coverage area nationwide at FOC. While Attachment J-2 requests these data by states, the 15 percent coverage factor will be evaluated on a nationwide basis only for this phase.”

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Section L.3.2.1, Coverage and Capacity, 3rd paragraph, is being revised in this Amendment 004 to read, “The Offeror’s solution must demonstrate intent to exercise rural telecommunications provider partnerships for at least 15 percent of the total persistent rural coverage nationwide.” Section L.3.2.1.3.2, Rural Coverage and Non-Rural Coverage, is being revised in this Amendment 004 to read, “The Offeror shall indicate the proposed amount of persistent Band 14 rural and non-rural coverage for the nation as a whole and each of the 56 states and territories for the IOC/FOC milestones.”

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**Question #:** 217

**RFP Section Reference:**

Section J, Attachment J-1, Coverage and Capacity Definitions, Section 2, Coverage Definition, 2nd Paragraph

Section J, Attachment J-3, FCC TAB RMTR, Section 1.4.6, Grade of Service and Section 4.6.3.2, Data Rates

**Question:**

Section J-1.2 states that “Persistent and temporary coverage is defined as a Long Term Evolution (LTE) Band 14 network capable of providing cell edge data rates of 256 kbps uplink (UL) and 768 kbps downlink (DL) measured from outdoor stationary User Equipment at three (3) feet from ground level with a 95 percent confidence margin at the cell edge with a uniform cell load of 50 percent for the DL and UL.”

Section J-3.1.4.6(35) and J-3.4.6.3.2 for Grade of Service (GoS) and Data Rates respectively state that “when minimum data rates are specified, they must also include the protocol layer at which the data rates are to be measured.”

What is the protocol layer specified to meet the 256 kbps uplink (UL) and 768 kbps downlink (DL) standard defined in J-1 Section 2 Coverage Definition?

**Answer:**

FirstNet has defined the cell edge coverage as those areas with user data rates greater than or equal to 256 kbps uplink (UL) and 768 kbps downlink (DL) at the physical layer (see 3GPP TS 36.211).

**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A

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**Question #:** 218**RFP Section Reference:** Section L.3.2.1.1.6, Planning Tool Analysis Layers**Question:**

Can the Government clarify the format the following layers should be provided in?:

- Reference Signal Receive Power (RSRP)
- Best Server
- Downlink Signal-to-Interference-Plus-Noise Ratio (SINR)
- Uplink SINR
- Modulation and Coding Scheme (MCS)
- Downlink Average Data Rate
- Uplink Average Data Rate
- Composite Coverage Map

**Answer:**

Each of the layers referenced in the question is a distinct layer in either an Esri shapefile (.shp) and/or MapInfo (.grd/.tab) file. Associated statistics are to be provided in an Excel format using Section J, Attachment J-17, Coverage and Capacity Template.

For maps, as stated in Section L.3.2.1.1, Coverage and Capacity Maps and Statistics, “The Offeror shall submit all applicable information as defined in Table 2 Coverage Maps Required for Coverage and Capacity.” This includes “Esri shapefiles (.shp) and MapInfo (.grd/.tab) files.”

For statistics related to the maps, as stated in Section L.3.2.1.1.6, Planning Tool Analysis Layers, and Section L.3.2.1.3.1, IOC Coverage Maps and Network Statistics, “The Offeror shall provide network statistics for each of the LTE analysis layers (with the exception of the Composite Coverage Map layer) using Section J, Attachment J-17, Coverage and Capacity Template.”

**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A

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**Question #:** 219**RFP Section Reference:** Section L.3.2.1.1.6, Planning Tool Analysis Layers**Question:**

Can the Government please define what is required for a “Composite Coverage Map”?

**Answer:**

As indicated in Section J, Attachment J-1, Coverage and Capacity Definitions, Section 5, Definitions for LTE Analysis Layers, the Composite Coverage Map “... provides the extent of coverage. Where there is no coverage, the layer indicates whether the DL or the UL is the limiting factor.”

**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A

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**Question #: 222**

**RFP Section Reference:** Section L.3.2.2.5.4, Service Availability

**Question:**

Can the Government please specify any unique requirements for Service Availability in the FirstNet network (beyond those identified in the SOO)?

**Answer:**

This is an objectives-based acquisition, which affords Offerors the flexibility to propose any unique features and/or functionality within their proposed solutions that meet FirstNet’s objectives, including User Service Availability (see Section C.5, Objectives, Objective #7). However, Sections L.3.2.2.4.4.2, Network Resiliency; L.3.2.2.4.4.3, Network Redundancy; L.3.2.2.5.4, Service Availability; M.4.3.4.4 Public Safety Grade; and M.4.3.5.4, Service Availability, provide additional background and the framework for evaluation of the User Service Availability objective contained in Section C.5, Objectives, Objective #7.

**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A

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**Question #: 223**

**RFP Section Reference:** Section L.3.2.2.5.4, Service Availability

**Question:**

Can the Government please specify any additional requirements or preferences high availability, geo-redundancy, or geo-diversity?

**Answer:**

Section C.5, Objectives, Objective #7, User Service Availability, identifies the service availability objective to ensure users of the NPSBN have access to mission-critical public safety services. Moreover, this is an objectives-based acquisition, which affords Offerors the flexibility to propose innovative

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strategies for hardening of the network, including geo-diversity/redundancy of the NPSBN architecture. Also, Section L.3.2.2.5.4, Service Availability, states, “The Offeror shall include its overall network design and operations strategy for providing high availability ...”

**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A

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**Question #: 224**

**RFP Section Reference:** Section J, Attachment J-4, System and Standards Views, Section 3.1, SV-1 Devices Interface (Interface #1)

**Question:**

What is the schedule for purchase of cybersecurity and other software implementations?

**Answer:**

Offerors should propose their comprehensive NPSBN cybersecurity deployment strategy with submission of proposals.

**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A

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**Question #: 225**

**RFP Section Reference:** Section J, Attachment J-10, Cybersecurity, Section 2.1, Public Safety Needs

**Question:**

Is the set of software implementations for Figure 2 SV-Devices, on per the 5G states and territories? How many instances for tapping points nationwide?

**Answer:**

The Government is unclear on the intent of the vendor’s questions and the clarification being requested. Therefore, the Government is unable to prepare a response as it relates to the information and/or terms and conditions contained within the RFP.

**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A

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**Question #:** 226**RFP Section Reference:** Section J, Attachment J-10, Cybersecurity, Section 2.1, Public Safety Needs**Question:**

How will throughput - data capture vary from state-to-state for all LTE site locations?

**Answer:**

Data reporting methods are expected to be specified by the Offeror in accordance with Section F, Deliverables and Performance; Section J, Attachment J-6, Quality Assurance Surveillance Plan; Section J, Attachment J-16, Deliverables Table; and any other applicable sections contained within the RFP.

**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A

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**Question #:** 227**RFP Section Reference:** Section J, Attachment J-10, Cybersecurity, Section 2.1, Public Safety Needs**Question:**

Do higher population states -- CA, TX, FL, NY -- require more infrastructure than others?

**Answer:**

This is an objectives-based acquisition, which affords Offerors the flexibility to propose designs that best achieve FirstNet's Statement of Objectives contained in Section C. This would include identifying any proposed infrastructure as part of the overall solution.

**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A

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**Question #:** 228**RFP Section Reference:** Section J, Attachment J-10, Cybersecurity, Section 2.1, Public Safety Needs**Question:**

What is the throughput scale if tied to population?

**Answer:**

The Government is unclear on the intent of the vendor's questions and the clarification being requested. However, it is up to each Offeror to provide a design that best achieves FirstNet's Statement of Objectives

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contained in Section C. Information with regard to coverage demand can be found in Section J, Attachment J-1, Coverage and Capacity Definitions, Section 4.3, Demand Map.

**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A

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**Question #: 236**

**RFP Section Reference:** Section J, Attachment J-6, Quality Assurance Surveillance Plan, Section 5.3.2.5, Performance Remediation, Table 4

**Question:**

Table 4 identifies performance remediation triggers and associated actions. Specific to Triggers 2 and 3, FirstNet states they may exercise Step-In Rights, and directs the Offeror to "... see Section H.16.2, Step-In Rights"; however, the Section addresses, Failure to Assert Right to Retain Benefits in the Events of Contractor Bankruptcy. Please confirm Table 4 should be edited to strike the phrase, "may exercise step-in rights."

**Answer:**

Amendment 001 revised the language in Section J, Attachment J-6, Quality Assurance Surveillance Plan, Section 5.3.5.1 Disincentive Payment Calculation, Table 3, Progressive Scale for Disincentive Payments, and Section J, Attachment J-6, Quality Assurance Surveillance Plan, Section 5.3.5.3, Performance Remediation, Table 4, Performance Remediation Triggers, and removed the references to "step-in rights."

**RFP Change (Yes/No):**

Yes

**RFP Change Description:**

Section H.16.4, Transition Plan, is being revised in this Amendment 004 to read, "In addition to any other transition obligations, upon any termination event under this contract, in addition to any rights afforded to FirstNet under law, at the written notification of FirstNet, the Contractor shall ..."

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**Question #: 238**

**RFP Section Reference:** Section J, Attachment J-8, IOC/FOC Target Timeline, Section 2, IOC/FOC Target Timeline, 3rd Paragraph

**Question:**

Respectfully request modifying the restriction on "not counting temporary coverage" in the IOC/FOC goals to include coverage calculations for the deployables in place on a semi-permanent basis (e.g. 3 months or longer).



**Answer:**

Within Section J, Attachment J-1, Coverage and Capacity Definitions, FirstNet outlines coverage objectives in support of meeting FirstNet’s overall objectives, as stated in Section C, Statement of Objectives. The coverage objective maps delineate between persistent coverage and temporary or on-demand coverage. Within Section J, Attachment J-8, IOC/FOC Target Timeline, the coverage milestones are specific to persistent coverage.

FirstNet desires persistent rather than temporary coverage. The Offeror is responsible for determining the best way to meet those objectives while balancing financial sustainability and public safety needs. Therefore, the RFP will not be amended to remove the restriction on “not counting temporary coverage.”

**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A

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**Question #:** 239

**RFP Section Reference:** Section J, Attachment J-8, IOC/FOC Target Timeline, Table 1 and Section 3.2.1

**Question:**

Per J.8 Section 3.2, IOC-2, “coverage and capacity deployment of Band 14 for both rural and non-rural areas must achieve 20% of Contractor’s proposed Band 14 coverage within one (1) year post contract award”. This schedule conflicts with the State Opt In/Out timeline which will not be completed until nine (9) months post contract award, at best, given the six (6) months to complete the IOC–1 State Plans and the 90 days the individual State Opt In/Out decision requires. This optimistic view does not factor in time for State Plan consultation. This leaves three (3) months, at best, for the design, build, and deployment required to meet IOC–2.

Please clarify the conflict in the two timelines.

**Answer:**

All dates are subject to timely award and delivery of state plans, which will impact state and territory decisions. Section J, Attachment J-8, IOC/FOC Target Timeline, includes nationwide and state milestones. Offerors shall propose timelines for each milestone. Nationwide milestones will commence with the award of the Day 1 task orders and any subsequent task order(s) will identify the applicable period of performance. State-level milestones will commence with the award of state and territory task orders. To the extent Delayed FirstNet-Deployed RANs task orders are delayed past April 30, 2017, Offeror-proposed IOC/FOC timelines may be adjusted on a month-for-month basis for up to 900 days following state plan delivery.

To the extent IDIQ or Initial FirstNet-Deployed RAN States task orders are delayed past April 30, 2017, Offeror-proposed IOC/FOC timelines may be adjusted on a month-for-month basis. Moreover, the

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timelines regarding IOC/FOC are stated as “after award,” which could apply to subsequent task orders for Delayed FirstNet-Deployed RANs.

**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A

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**Question #: 251**

**RFP Section Reference:**

Section L.3.1.3, Section Three – Public Safety Customer Acquisition, Bullet 10

Section F.4.2.3, Network Technology Roadmap

**Question:**

L.3.1.3 requires the Contractor to provide: “a roadmap of the existing and future Band 14 products, services, and devices to be offered and describe how new services and features will incentivize use of the NPSBN”.

F.4.2.3 requires the technology roadmap six (6) months after the contract award, “a roadmap of the existing and future Band 14 products, services, and devices to be offered and describe how new services and features will incentivize use of the NPSBN”.

Please clarify the required submission timeframe of the roadmap; with the proposal, six months after contract award or both?

**Answer:**

The submission timeframe is for both—with the proposal (Section L) and after award (Section F). Section L.3.1.3, Section Three – Public Safety Customer Acquisition, requires the Offeror to provide information within its proposal demonstrating its ability by providing “a roadmap of the existing and future Band 14 products, services, and devices to be offered” and by describing “how new services and features will incentivize use of the NPSBN.” Section F.4.2.3, Network Technology Roadmap, pertains to updates of the roadmap (post-award) semi-annually beginning six (6) months after contract award.

**RFP Change (Yes/No):**

Yes

**RFP Change Description:**

Section F.4.2.3, Network Technology Roadmap, is being revised in this Amendment 004 to read, “The roadmap shall be provided beginning six (6) months after contract award and subsequent updates shall occur every six (6) months thereafter, unless additional updates are needed and/or mutually agreed upon.”

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**Question #:** 253**RFP Section Reference:**

Section L.3.3.4, Delayed Payments to FirstNet, 1st Paragraph

Section B.2.3, State and Territory Task Order(s) – Delayed FirstNet-Deployed RANs

**Question:**

In the event FirstNet assumes responsibility for State RANs failing to meet statutorily required approval criteria, the Government intends to exercise options for the Contractor to provide a proposed technical solution. In this case, “(t)he Government may exercise these options within 900 days of the initial award”; however, Section B.2.3 states “(t)he Government may issue these task orders within 900 calendar days of state plan delivery at the levels proposed by the Offeror”. Please clarify the expected date for issuing such options.

**Answer:**

All dates are subject to timely award and delivery of state plans, which will impact state and territory decisions. Section J, Attachment J-8, IOC/FOC Target Timeline, includes nationwide and state milestones. Offerors will propose timelines for each milestone. Nationwide milestones will commence with the award of the Day 1 task orders and any subsequent task order(s) will identify the applicable period of performance. State-level milestones will commence with the award of state and territory task orders. To the extent Delayed FirstNet-Deployed RANs task orders are delayed past April 30, 2017, Offeror-proposed IOC/FOC timelines may be adjusted on a month-for-month basis for up to 900 days following state plan delivery. Moreover, the timelines regarding IOC/FOC are stated as “after award,” which could apply to subsequent task orders for Delayed FirstNet-Deployed RANs.

**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A

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**Question #:** 255**RFP Section Reference:** Section C.5, Objectives**Question:**

Once the project has been awarded, additional information from stakeholders might be able to help facilitate the development of the state plans and meeting FirstNet’s overall objectives.

Does FirstNet anticipate issuing any RFIs or any other similar type of solicitation to garner input once the project has been awarded?

**Answer:**

FirstNet does not anticipate issuing additional Requests for Information (RFIs) post-award. There is a Day 1 task order dedicated to State Plan Development and Refinement, as identified in Section B.2.1.2,

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Task Order 2 – State Plan Development and Refinement. FirstNet will work with the Contractor to facilitate development, refinement, and delivery of the individual state plans.

**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A

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**Question #:** 259

**RFP Section Reference:** Section L.2.5, Submission of Proposals

**Question:**

If small carriers feel they do not have adequate time to prepare a sufficient bid response before April 29, 2016, then what recourse do they have?

**Answer:**

Amendment 001 extended the due date for submission of proposals to May 13, 2016. However, the Government has been and continuously encourages teaming arrangements and/or partnering in order to develop a nationwide solution in accordance with the objectives and terms and conditions stated in the RFP. Additionally, as a courtesy, the Government has been compiling a list of those Offerors interested in subcontracting and teaming opportunities with other potential Offerors for more than a year.

**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A

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**Question #:** 262

**RFP Section Reference:**

Section F.4.2.2.1, Coverage, Population, and Capacity Maps

Section J, Attachment J-1, Coverage and Capacity Definitions

**Question:**

If the upload (“UL”)/download (“DL”) throughput requirements (e.g., 256 kbps UL) and signal reliability (e.g., 95%) derive a link budget, then why does FirstNet require additional coverage plots beyond simple Reference Signal Received Power (“RSRP”) and Best Server by bin? Smaller carriers do not have the scale and resources to produce many of these types of plots quickly within the allotted timeframe for RFP response. For instance, DL/UL throughput, Modulation and Coding Scheme (“MCS”), etc., require advanced simulation tools such as Monte Carlo simulation.

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**Answer:**

FirstNet’s coverage definition—256 Kbps uplink and 768 Kbps downlink—can be found in Section J, Attachment J-1, Coverage and Capacity Definitions. This definition is for proposal preparation and evaluation purposes pertaining to coverage. The Offeror is to develop a link budget and associated solution that provides coverage in the areas noted in Section J, Attachment J-1, Coverage and Capacity Definitions. Public Safety Entities using the NPSBN may require more or less throughput depending on the application(s) they are using and how they are using the application(s). To more fully understand the Offeror’s RAN design to meet FirstNet’s coverage objectives, the Offeror shall provide the LTE analysis layers as noted in Section L.3.2.1.1.6, Planning Tool Analysis Layers and Section L.3.2.1.3.1, IOC Coverage Maps and Network Statistics.

Also, Amendment 001 extended the proposal due date to May 13, 2016.

**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A

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**Question #: 263**

**RFP Section Reference:** Section M.2.3.2, Rural Partners and Subcontractors

**Question:**

If partnerships are created to achieve 15% of rural coverage build , but states in the geographies that were part of the 15% rural partner build plan later opt out, then would the prime contractor still be responsible for achieving the 15% rural coverage build through rural partners? In other words, is the 15% rural build requirement based on the initial proposed national bid (before optin/out), or is it based on the subset of states that end up as opt-in states?

**Answer:**

The 15 percent rural build requirement is based on the proposed nationwide solution evaluated. The 15 percent rural build requirement is for proposal preparation and evaluation purposes and does not apply post-award.

**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A

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**Question #:** 264**RFP Section Reference:**

Section J, Attachment J-8, IOC/FOC Target Timeline

Section J, Attachment J-17, Coverage and Capacity Template

**Question:**

Are the Initial Operational Capability (“IOC”)/Final Operational Capability (“FOC”) buildout requirements by state or by national build? Is a RAN build partner required to build equally in all states, or can the RAN build partner create a build plan on a national basis (e.g., 20% urban coverage in each state, or an average of 20% urban coverage across multiple states) in order to prioritize builds in geographies where it believes there will be the highest likelihood of public safety response?

**Answer:**

The IOC/FOC buildout objectives for RAN are stated in Section J, Attachment J-8, IOC/FOC Target Timeline, which includes nationwide and state-specific milestones and associates buildout objectives with specific task orders. However, it is not required to build equally in all states and territories.

**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A

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**Question #:** 266**RFP Section Reference:** Section C.5, Objectives, User Service Availability**Question:**

Objective No. 7 (“User Service Availability”) states: “Provide a broadband service with availability of 99.99% as measured in a rolling 12-month window within each reporting area.” How will this service availability be measured (e.g., by site level, state level, or national level)?

**Answer:**

Section L.3.2.2.5.4, Service Availability, states, “The Offeror shall propose how data sessions (successful, unsuccessful, and attempted) will be measured and reported. The Offeror shall also propose definitions of geographic reporting to ensure users and their agencies receive reliable service. The Offeror shall include its overall network design and operations strategy for providing high availability with special attention to those areas identified in Section J, Attachment J-1, Coverage and Capacity Definitions.”

**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A

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**Question #:** 267**RFP Section Reference:** Section C.5, Objectives, User Service Availability**Question:**

Objective No. 7 (“User Service Availability”) states: “Service restoration activities shall be undertaken with the highest available priority but shall not exceed two hours for any impaired service.” What determines whether each type of service (e.g., voice, data, etc.) has been “impaired,” and what determines whether the service has been restored (for instance, would deployable coverage count)?

**Answer:**

Offerors are expected to provide their strategy of how Objective #7, User Service Availability (see Section C.5, Objectives) will be measured and reported based on the ecosystem of services that encompass the NPSBN for local, state, regional, tribal, and federal users, including emergency restoration through temporary or secondary service capabilities. See also Sections L.3.2.1.2.1, Features and Functionalities Impacting User Experience; L.3.2.2.5.4, Service Availability; and M.4.3.5.4, Service Availability.

**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A

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**Question #:** 268**RFP Section Reference:** Section C.5, Objectives, Objective #7, User Service Availability**Question:**

Existing Land Mobile Radio (“LMR”) systems and Commercial Mobile Radio Service (“CMRS”) broadband systems are apples and oranges (i.e., voice services vs data services). Given that the more complicated and sophisticated hardware associated with wireless broadband may require more frequent maintenance related updates, will maintenance window times (e.g., known outage periods) be exempt from uptime calculations?

**Answer:**

Planned maintenance periods are excluded from the service availability calculation. Given FirstNet’s mission, Offerors shall propose solutions that minimize maintenance period impacts to the user base.

**RFP Change (Yes/No):**

Yes

**RFP Change Description:**

Section C.5, Objectives, Objective #7, User Service Availability, is being revised in this Amendment 004 to read, “Provide a broadband service with availability of 99.99%, exclusive of planned maintenance windows, as measured in a rolling 12-month window within each reporting area.”

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Section J, Attachment J-14, Terms of Reference, is being revised in this Amendment 004 to include the following definition, “Planned maintenance refers to normal maintenance scheduled for preventative measures (e.g., patches, upgrades) used to deliver stable NPSBN services to end users. This level of maintenance shall occur only after a notice is delivered via electronic communication to and approved by the Government. This requires planning, allocation of significant amount of time and resources, and a high degree of coordination between the Contractor and FirstNet.”

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**Question #:** 269

**RFP Section Reference:** Section H.6.2, Personnel Security Requirements

**Question:**

What labor resources within the RAN operator are required to have background checks and/or security clearances?

**Answer:**

Section H.6.2, Personnel Security Requirements, is limited to key personnel and provides consideration for background checks and/or security clearance requirements.

**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A

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**Question #:** 274

**RFP Section Reference:**

Section C.9, Delivery Schedule

Section J, Attachment J-8, IOC/FOC Target Timeline

**Question:**

The RFP requires an ongoing roadmap and project management process that allows for joint agreement on features, timing, and pricing. How far into the future (e.g., one year, two years) should those roadmaps extend, and how will the content of those roadmaps be defined and negotiated?

**Answer:**

In addition to the RFP documents referenced (Section C, Statement of Objectives; Section J, Attachment J-8, IOC/FOC Target Timeline) Section F, Deliverables and Performance, Section F.4.2.3, Network Technology Roadmap, provides additional details on the network roadmap and states, “The Contractor shall provide a network technology roadmap that details vendor equipment capabilities, features, and services identified for inclusion in the NPSBN. For each planned release, the Contractor shall note the targeted availability date and describe the capability, feature, or service, as well as the specific 3GPP release supported. The roadmap shall also note changes in hardware, software, and other network elements impacted by planned releases. The roadmap shall be provided semi-annually beginning six (6)



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months after contract award.” Roadmaps should project as far into the future as practical, but not less than three years or FOC whichever is later.

**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A

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**Question #: 276**

**RFP Section Reference:** Section J, Attachment J-10, Cybersecurity, Section 2.1, Bullet 9, End-to-End Encryption of User Communications and Data and Section 2.5.1, Identifying Vulnerabilities

**Question:**

In establishing an end to end encryption of the infrastructure, including storage (structured and unstructured data at rest, data in transit, data on tape) would new technologies that equate to memory encryption be useful?

**Answer:**

As stated in Section C, Statement of Objectives, 1st paragraph, the objectives-based nature of the RFP is designed to provide prospective Offerors with maximum flexibility to propose the most responsive and effective cybersecurity solution they can devise.

**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A

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**Question #: 277**

**RFP Section Reference:** Section J, Attachment J-10, Cybersecurity, Section 2.1, Bullet 9, End-to-End Encryption of User Communications and Data and Section 2.5.1, Identifying Vulnerabilities

**Question:**

To manage encryption keys, would a common key manager be useful to provide single simplified encryption key management?

**Answer:**

Industry best practices that are compliant with 3GPP standards may be used, which would include identification of the proposed encryption key management. As stated in Section J, Attachment J-10, Cybersecurity, Section 2.4, Cybersecurity Architecture, “To establish a secure NPSBN, the network architecture should, at a minimum, implement the recommended requirements listed in Section 1.3.7, Security, and the recommended considerations listed in Section 1.4.8, Security, of Section J, Attachment

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J-3, FCC TAB RMTR, as well as the following 3GPP specifications: TS23.401, TS33.102, TS33.210, TS33.310, TS33.401, and TS33.402.”.

**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A

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**Question #:** 280

**RFP Section Reference:** Section C.8, Performance Standards

**Question:**

Have you considered In-Memory technologies for analytics?

**Answer:**

FirstNet does not require a specific technology for analytics. It is at the Offeror’s discretion to propose any particular technologies in order to meet the objectives set forth in the RFP.

**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A

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**Question #:** 281

**RFP Section Reference:** Section M.2.1, Phase 1 - Capability Statements

**Question:**

In this paragraph it states, “Following review and evaluation of all capability statements received as a result of this phase, those deemed best qualified based on the evaluation criteria stated herein will be invited to submit a proposal in accordance with the instructions contained in Section L, Instructions, Conditions, and Notices to Offerors or Respondents”.

However, in the webinar it was stated that, “Notwithstanding the advice provided by the government that they are not considered to be a viable competitor, they may still participate in the resultant acquisition, follow the instructions in Section L and submit a proposal”.

1. Will FirstNet’s response to individual Capability Statements determine whether or not a bidder is eligible to submit a bid?
2. When will FirstNet provide the responses to the individual bidders?

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**Answer:**

In accordance with FAR 15.202(b), submission of a capability statement is not a requirement in order to participate in this acquisition and submission of a proposal. However, Section M.2.1, Phase I – Capability Statements, affords the Government the opportunity to provide feedback to the potential Offeror regarding evaluation of the capability statement prior to submission of formal proposals to the solicitation. Such feedback may be helpful to the potential Offeror in formulating its solicitation response. Also, the notification identified in Section M.2.1, Phase I – Capability Statements, will be provided as soon as practicable upon completion of evaluation of the submissions.

**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A

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**Question #:** 295

**RFP Section Reference:** No Request for Proposal (RFP) reference noted in question submitted

**Question:**

We seek clarification on the difference between the words SHOULD, SHALL, MAY & MIGHT throughout the document?

**Answer:**

While the RFP is an objectives-based procurement intended to provide maximum flexibility to Offerors while ensuring the greatest value for public safety, the Act mandates certain requirements. Those requirements that are not objectives but are firm requirements that must be met or exceeded are set forth in Section J, Attachment J-3, FCC TAB RMTR. Those items that are noted in the FCC TAB RMTR as “recommended requirements” and include the word SHALL must be met. For those items that are noted in the FCC TAB RMTR as “recommended requirements” and include the word SHOULD instead of SHALL, Offerors are strongly encouraged to address them in their solution. SHOULD statements throughout the RFP will be viewed similarly. MUST statements and SHALL statements are equivalent.

**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A

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**Question #:** 302**RFP Section Reference:**

Section M.2.3.2, Rural Partners and Subcontractors

Section L.3.2.1, Coverage and Capacity

**Question:**

Why is the rural requirement of 15% coverage evaluated on a nationwide basis only, and not on a statewide basis? Couldn't this result in a state with minimal rural coverage?

**Answer:**

The 15 percent threshold only identifies how much of an Offeror's proposed rural coverage solution is satisfied via partnerships with rural telecommunications providers. This is the ratio of the total nationwide rural coverage provided by rural telecommunications providers at FOC to the total nationwide rural coverage proposed by the Offeror at FOC. FirstNet's coverage objectives, for both rural and non-rural areas, are included in Section J, Attachment J-1, Coverage and Capacity Definitions, and the associated maps and files included within Section J, Attachment J-1, Coverage and Capacity Definitions.

**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A

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**Question #:** 303**RFP Section Reference:**

Section M.4, Evaluation Factors

Section J, Attachment J-17, Coverage and Capacity Template

Section L.3.2.2.1.1, Basic Network Services

**Question:**

If no fully compliant bids are received, is it possible and Offeror will still be selected? If so, what would be done to address deficiencies, such as coverage gaps (proposed vs. state input objectives) or public safety feature gaps in non-band 14 coverage?

**Answer:**

FAR 52.215-1, Instructions to Offerors – Competitive Acquisition (Jan 2004), contained in Section L.1, FAR 52.252-1, Solicitation Provisions Incorporated by Reference (FEB 1998), states that the Government reserves the right to conduct discussions if the Contracting Officer determines them to be necessary. Discussions are negotiations that may, at the Contracting Officer's discretion, result in the Offeror being allowed to revise its proposal. Additionally, in accordance with FAR Part 15, at a minimum, the Contracting Officer must indicate or discuss deficiencies, significant weaknesses, and adverse past

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performance information to which the Offeror has not yet had an opportunity to respond. The Contracting Officer also is encouraged to discuss other aspects of the Offeror’s proposal that could, in the opinion of the Contracting Officer, be altered or explained to enhance materially the proposal’s potential for award. However, the Contracting Officer is not required to discuss every area where the proposal could be improved. The scope and extent of discussions are a matter of the Contracting Officer’s judgment.

**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A

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**Question #:** 304

**RFP Section Reference:** Section M.2.3.2, Rural Partners and Subcontractors

**Question:**

How is the 15% rural telecom provider partnership target defined? Does the “15% of total rural coverage nationwide” refer to geography, as based upon the proposed FirstNet objective coverage map? Or, does the “15% of total rural coverage nationwide” refer to geography, as based upon the Offeror’s proposed geographic coverage?

**Answer:**

Section J, Attachment J-2, Nationwide and Rural Coverage Compliance Checklist, requests the “Forecasted % of Rural Coverage Met through Rural Telecommunications Providers.” Section M.2.3.2, Rural Partners and Subcontractors, states, “The Offeror’s solution must demonstrate commitment to exercise rural telecommunications provider partnerships for at least 15 percent of the total rural coverage nationwide. While Attachment J-2 requests these data by states and territories, the 15 percent coverage factor will be evaluated on a nationwide basis only for this phase.” In both cases, the 15 percent reference is the ratio of the total nationwide rural coverage provided by rural telecommunications providers at FOC to the total nationwide rural coverage proposed by the Offeror at FOC. The total nationwide rural coverage proposed by the Offeror is captured in Section J, Attachment J-17, Coverage and Capacity Template, “Band 14 Rural Coverage” worksheet, in column AH, which is labeled “FOC - Rural Area Covered (sq mi.).” Both Section M, Evaluation Factors for Award and Section J, Attachment J-2, Nationwide and Rural Coverage Compliance Checklist, will be modified to explicitly state that this ratio is with respect to area coverage and that the requested coverage is at FOC.

**RFP Change (Yes/No):**

Yes

**RFP Change Description:**

Section J, Attachment J-2, Nationwide and Rural Coverage Compliance Checklist, is being revised in this Amendment 004 in order to change the right-most column label to “Forecasted % of Rural Coverage Area Met through Rural Telecommunications Providers at FOC.”

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Section M.2.3.2, Rural Partners and Subcontractors, is being revised in this Amendment 004 to read, “The Offeror’s solution must demonstrate commitment to exercise rural telecommunications provider partnerships for at least 15 percent of the total rural coverage area nationwide at FOC. While Attachment J-2 requests these data by states, the 15 percent coverage factor will be evaluated on a nationwide basis only for this phase.”

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**Question #:** 305

**RFP Section Reference:** Section M.2.3.2, Rural Partners and Subcontractors

**Question:**

In regard to the 15% rural telecom provider partnership target and the buildout timeline -- will the Offeror need to provide a 15% minimum for each buildout stage/target, or can that be done at any stage?

**Answer:**

The 15 percent reference is the ratio of the total nationwide rural coverage provided by rural telecommunications providers at FOC to the total nationwide rural coverage proposed by the Offeror at FOC. The total nationwide rural coverage proposed by the Offeror is captured in Section J, Attachment J-17, Coverage and Capacity Template, “Band 14 Rural Coverage” worksheet, in column AH, which is labeled “FOC - Rural Area Covered (sq mi.).” Both Section M, Evaluation Factors for Award, and Section J, Attachment J-2, Nationwide and Rural Coverage Compliance Checklist, will be modified to explicitly state that this ratio is with respect to area coverage and that the requested coverage is at FOC on a nationwide basis.

**RFP Change (Yes/No):**

Yes

**RFP Change Description:**

Section J, Attachment J-2, Nationwide and Rural Coverage Compliance Checklist, is being revised in this Amendment 004 in order to change the right-most column label to “Forecasted % of Rural Coverage Area Met through Rural Telecommunications Providers at FOC.”

Section M.2.3.2, Rural Partners and Subcontractors, is being revised in this Amendment 004 to read, “The Offeror’s solution must demonstrate commitment to exercise rural telecommunications provider partnerships for at least 15 percent of the total rural coverage area nationwide at FOC. While Attachment J-2 requests these data by states, the 15 percent coverage factor will be evaluated on a nationwide basis only for this phase.”

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**Question #:** 306**RFP Section Reference:** Section M.2.3.2, Rural Partners and Subcontractors**Question:**

In regard to the 15% rural telecom provider partnership target -- will the 15% be evaluated and mandated on a per state basis, or could the Offeror partner with providers in only one/a few states to achieve the rural telecom partnership target and leave most other states without a rural partner?

**Answer:**

As stated in Section M.2.3.2, Rural Partners and Subcontractors, “The Offeror’s solution must demonstrate commitment to exercise rural telecommunications provider partnerships for at least 15 percent of the total rural coverage nationwide. While Attachment J-2 requests these data by states, the 15 percent coverage factor will be evaluated on a nationwide basis only for this phase.” However, this language is being revised, in this Amendment 004, to reflect the 15 percent nationwide is at FOC.

**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A

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**Question #:** 308**RFP Section Reference:** Section M.4.1.2, Section Two - Leadership and Program Management**Question:**

Will the 15% minimum rural provider partnership requirement be considered throughout the evaluation process for the RFP proposals, such as in the final “basis for award/phase IV” of the evaluation process where leveraging existing commercial and/or other infrastructure is one of the criteria? In other words, how will FirstNet ensure that the final accepted contract/offer still includes the rural telecom provider partnership stipulation -- and then that the winning bidder follows through on its initial promises to partner with rural telecommunications providers for at least 15% of the total rural coverage nationwide?

**Answer:**

The requirement for 15 percent of the Offeror’s rural coverage to be provided by rural telecommunications providers is part of Phase III of the evaluation, Pass/Fail. Failure to pass any of the Pass/Fail factors may result in the proposal submission being removed from any further consideration. Moreover, the Offeror’s proposed solution will be the basis for a contractual agreement with the Government. The proposed solution pertaining to the rural provider partnerships is considered part of the resultant contract and is enforceable regarding performance and associated metrics.

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**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A

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**Question #:** 309**RFP Section Reference:** Section M.2.1, Phase 1 - Capability Statements**Question:**

Within its capability statement, what methods/format, etc., should an Offeror use to present its existing and planned rural partnerships?

**Answer:**

Offerors may articulate their existing and planned rural partnerships in their capability statements in any format.

**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A

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**Question #:** 311**RFP Section Reference:** Section L.2.1, Partnering/Teaming List**Question:**

Does a company/organization need to be a member of the FirstNet-maintained Teaming List to be considered by FirstNet as an Offeror/future contract partner?

**Answer:**

No, as stated in Section L.2.1, Partnering/Teaming List, “Offerors are not required to be listed on the partnering/teaming list to submit a proposal.”

**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A



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**Question #:** 312**RFP Section Reference:** Section M.2.1, Phase 1 - Capability Statements**Question:**

In regard to capabilities statements, will FirstNet encourage and accept statements from the rural industry – or will FirstNet only accept statements from joint Offerors that present a comprehensive, nationwide solution?

**Answer:**

The submission of a capability statement, in Phase I, affords Offerors an opportunity to demonstrate (and for the Government to evaluate) their capabilities regarding the following:

- Public safety use and adoption of the NPSBN
- Nationwide coverage and capacity
- Rural partnerships
- Ability to monetize network capacity
- Financial sustainability

Offerors may do so irrespective of organization type.

**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A

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**Question #:** 343**RFP Section Reference:** Section J, Attachment J-7, Operational Architecture, Section 1.2, Operational Architecture View**Question:**

As in the Draft RFP, can FirstNet provide an Excel version of the Section J, Operational Architecture, that includes not only the “inherently governmental” FirstNet responsibilities, but also identifies contractor and public safety entity (PSE) functions?

**Answer:**

No, FirstNet provided an operational architecture for FirstNet minimum responsibilities and asks Offerors to provide structure for all other responsibilities Offerors require to meet FirstNet objectives. Operational responsibilities will be dependent upon the functions identified by the Contractor (within its proposed solution) and agreement on ownership of those functions between the Contractor and FirstNet.

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**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A

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**Question #:** 347**RFP Section Reference:** Section L.3.2.2.4.3.5, Support for Land Mobile Radio Network Integration (if proposed)**Question:**

Providing gateways to allow local land mobile radio (LMR) networks to interwork with the NPSBN has always been a tenet of FirstNet.[1] However, this section describes LMR integration as an optional, “if proposed” service. Does FirstNet require the Offeror to interwork push-to-talk land mobile voice with FirstNet service? If so, at what IOC/FOC?

**Answer:**

Section J, Attachment J-8, IOC/FOC Target Timeline, lists Push-to-Talk (PTT) functionality and mission critical PTT functionality beginning in IOC-2. Section J, Attachment J-8, IOC/FOC Target Timeline, Section 3.2.2.1, Services, notes an objective for consumer-grade PTT in IOC-2. Similarly in IOC-2, Section J, Attachment J-8, IOC/FOC Target Timeline, Section 3.2.2.5, Operations, includes “accommodation of Over-the-Top (OTT)-based PTT until standards-based Mission Critical (MC)-PTT is available.” Section J, Attachment J-8, IOC/FOC Target Timeline, Section 3.3.2, IOC-3 – Products and Architecture, explicitly calls out MC-PTT for inclusion in IOC-3. While MC-PTT is required, as noted, there is no explicit requirement for a direct interface to existing LMR systems. This has been noted as a future consideration and is labeled as a recommended provision in Section J, Attachment J-3, FCC TAB RMTR.

Section J, Attachment J-3, FCC TAB RMTR, Section 4.4.3.1, Interoperability with Land Mobile Radio Systems, states, “Networks that provide voice service as an application should provide voice interoperability interfaces to existing agency LMR systems in the area served by the broadband network. Public Safety users on such home or visited networks should be able to call or hail an authoritative dispatch agency or control point using the broadband network subscriber device with microphone and speaker for two-way audio, and talk or be connected to other serving agency voice communications resources. Because the devices and device capabilities for this feature will develop over time, this feature may be considered a future requirement.”

Recommended considerations stated in Section J, Attachment J-3, FCC TAB RMTR, are: “(19) The NPSBN SHOULD allow for connection and operation of IP-based LMR voice interoperability gateways using open interfaces as they are developed.”

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**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A

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**Question #:** 350**RFP Section Reference:** Section J, Attachment J-7, Operational Architecture, Section 1.2, Operational Architecture View**Question:**

As in the Draft RFP, can FirstNet provide an Excel version of the Section J, Operational Architecture, that includes not only the “inherently governmental” FirstNet responsibilities, but also identifies contractor and public safety entity (PSE) functions?

**Answer:**

No, FirstNet provided an operational architecture for FirstNet minimum responsibilities and asks Offerors to provide structure for all other responsibilities Offerors require to meet FirstNet objectives. Operational responsibilities will be dependent upon the functions identified by the Contractor (within their proposed solution) and agreement on ownership of those functions between the Contractor and FirstNet.

**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A

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**Question #:** 381**RFP Section Reference:** Section J, Attachment J-1, Coverage and Capacity Definition, Section 2, Coverage Definition**Question:**

Section J-1 describes the coverage requirement of FirstNet. It describes “minimum” uplink and downlink data speeds (256kbps / 786kbps) at cell edge with a “95% confidence margin”. The text goes on to describe the requirement as “minimum design targets used to ensure overlap between cells is sufficient to maintain the minimum grade of service”. It further describes the requirement as “consistent with 3rd Generation Partnership Project (3GPP) standards for a 10x10 MHz LTE... “.

The requirement of a 95% confidence margin at cell edge is anything but ordinary as a deployment standard. It means that performance must be maintained during fading conditions that represent 95% of the area under a normally distributed SINR curve. One must assume in such a fading scenario that the desired signal fades, but the noise plus interference does not. In other words, there is a dramatic deterioration in SINR.

If the standard deviation of SINR is 8 dB then a 95% confidence margin implies an additional 13.2 dB of margin. If the standard deviation of SINR is 12 dB (as it is in many urban environments) then a 95% confidence margin implies an additional 19.7 dB of margin.

This is equivalent to specifying a median edge of cell performance requirement of 8.6 Mbps (downlink) / 2.5 Mbps (uplink) with a 8 dB standard deviation, or a median performance requirement of 17.9 Mbps (downlink) / 7.5 Mbps (uplink) with a 12 dB standard deviation.

This level of performance is not likely to be achieved in a 10x10 MHz LTE network under “real world” (not a laboratory) conditions.

Does FirstNet intend to impose spectacularly difficult requirements (arguably unachievable, especially under interference-limited conditions) on the offeror?

**Answer:**

Amendment 003 amended Section J, Attachment J-1, Coverage and Capacity Definitions, to change the reference point from “cell edge” to “cell area.”

**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A

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**Question #:** 382

**RFP Section Reference:** Section J, Attachment J-1, Coverage and Capacity Definition, Section 2, Coverage Definition

**Question:**

Section J-1 describes the coverage requirement of FirstNet. It describes “minimum” uplink and downlink data speeds (256kbps / 786kbps) at cell edge with a “95% confidence margin”. The text goes on to describe the requirement as “minimum design targets used to ensure overlap between cells is sufficient to maintain the minimum grade of service”. It further describes the requirement as “consistent with 3rd Generation Partnership Project (3GPP) standards for a 10x10 MHz LTE... “.

The requirement of a 95% confidence margin at cell edge is anything but ordinary as a deployment standard. It means that performance must be maintained during fading conditions that represent 95% of the area under a normally distributed SINR curve. One must assume in such a fading scenario that the desired signal fades, but the noise plus interference does not. In other words, there is a dramatic deterioration in SINR.

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This is equivalent to specifying a median edge of cell performance requirement of 8.6 Mbps (downlink) / 2.5 Mbps (uplink) with a 8 dB standard deviation, or a median performance requirement of 17.9 Mbps (downlink) / 7.5 Mbps (uplink) with a 12 dB standard deviation.

This level of performance is not likely to be achieved in a 10x10 MHz LTE network under “real world” (not a laboratory) conditions.

Is the “95% confidence margin” a rigid requirement – necessary for a compliant solution – or it merely a recommendation?

**Answer:**

Amendment 003 amended Section J, Attachment J-1, Coverage and Capacity Definitions, to change the reference point from “cell edge” to “cell area.”

**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A

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**Question #:** 383

**RFP Section Reference:** Section J, Attachment J-1, Coverage and Capacity Definition, Section 2, Coverage Definition

**Question:**

Section J-1 describes the coverage requirement of FirstNet. It describes “minimum” uplink and downlink data speeds (256kbps / 786kbps) at cell edge with a “95% confidence margin”. The text goes on to describe the requirement as “minimum design targets used to ensure overlap between cells is sufficient to maintain the minimum grade of service”. It further describes the requirement as “consistent with 3rd Generation Partnership Project (3GPP) standards for a 10x10 MHz LTE... “.

The requirement of a 95% confidence margin at cell edge is anything but ordinary as a deployment standard. It means that performance must be maintained during fading conditions that represent 95% of the area under a normally distributed SINR curve. One must assume in such a fading scenario that the desired signal fades, but the noise plus interference does not. In other words, there is a dramatic deterioration in SINR.

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This is equivalent to specifying a median edge of cell performance requirement of 8.6 Mbps (downlink) / 2.5 Mbps (uplink) with a 8 dB standard deviation, or a median performance requirement of 17.9 Mbps (downlink) / 7.5 Mbps (uplink) with a 12 dB standard deviation.

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This level of performance is not likely to be achieved in a 10x10 MHz LTE network under “real world” (not a laboratory) conditions.

What standard deviation of SINR should the offeror assume in performing the calculations? This is a critical assumption that will greatly influence the interpretation of the requirement.

**Answer:**

This is an objectives-based acquisition, which affords Offerors the flexibility to propose any unique features and/or functionality within their proposed solutions that meet FirstNet’s objectives. Offerors are to develop a link budget and associated solution that provides coverage in the areas noted in Section J, Attachment J-1, Coverage and Capacity Definitions. The standard deviation of Signal to Interference Plus Noise Ratio (SINR) is a design variable that depends upon a number of other variables; any assumptions made regarding these values that are consistent with the overall system design and link budget and that are best suited to FirstNet’s objectives shall be submitted in accordance with Section L.2.6, Assumptions, Conditions, and/or Exceptions, as well as L.3.2.1.2.2, Network Planning and Design.

**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A

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**Question #:** 384

**RFP Section Reference:** Section J, Attachment J-1, Coverage and Capacity Definitions, Section 2, Coverage Definition

**Question:**

Section J-1 describes the coverage requirement of FirstNet. It describes “minimum” uplink and downlink data speeds (256kbps / 786kbps) at cell edge with a “95% confidence margin”. The text goes on to describe the requirement as “minimum design targets used to ensure overlap between cells is sufficient to maintain the minimum grade of service”. It further describes the requirement as “consistent with 3rd Generation Partnership Project (3GPP) standards for a 10x10 MHz LTE... “.

The requirement of a 95% confidence margin at cell edge is anything but ordinary as a deployment standard. It means that performance must be maintained during fading conditions that represent 95% of the area under a normally distributed SINR curve. One must assume in such a fading scenario that the desired signal fades, but the noise plus interference does not. In other words, there is a dramatic deterioration in SINR.

If the standard deviation of SINR is 8 dB then a 95% confidence margin implies an additional 13.2 dB of margin. If the standard deviation of SINR is 12 dB (as it is in many urban environments) then a 95% confidence margin implies an additional 19.7 dB of margin.

This is equivalent to specifying a median edge of cell performance requirement of 8.6 Mbps (downlink) / 2.5 Mbps (uplink) with a 8 dB standard deviation, or a median performance requirement of 17.9 Mbps (downlink) / 7.5 Mbps (uplink) with a 12 dB standard deviation.

This level of performance is not likely to be achieved in a 10x10 MHz LTE network under “real world” (not a laboratory) conditions.

FirstNet requests on page J-1 - 9 the following raster layers from each respondent: Reference Signal Received Power (RSRP), Best Server, Downlink Signal-to-Interference-Plus-Noise Ratio (SINR), Uplink SINR, Modulation and Coding Scheme (MCS), and Downlink Average Data Rate. Should any of these metrics be used directly in the design process? If so, with what thresholds?

**Answer:**

All of the metrics mentioned are typically part of the wireless design process. Offerors should employ appropriate wireless practices and variable values in their design process to provide a solution that best achieves FirstNet’s objectives, as detailed in Section C, Statement of Objectives, and associated Section J attachments.

**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A

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**Question #: 385**

**RFP Section Reference:** Section J, Attachment J-1, Coverage and Capacity Definitions, Section 2, Coverage Definition

**Question:**

Section J-1 describes the coverage requirement of FirstNet. It describes “minimum” uplink and downlink data speeds (256kbps / 786kbps) at cell edge with a “95% confidence margin”. The text goes on to describe the requirement as “minimum design targets used to ensure overlap between cells is sufficient to maintain the minimum grade of service”. It further describes the requirement as “consistent with 3rd Generation Partnership Project (3GPP) standards for a 10x10 MHz LTE... “.

The requirement of a 95% confidence margin at cell edge is anything but ordinary as a deployment standard. It means that performance must be maintained during fading conditions that represent 95% of the area under a normally distributed SINR curve. One must assume in such a fading scenario that the desired signal fades, but the noise plus interference does not. In other words, there is a dramatic deterioration in SINR.

If the standard deviation of SINR is 8 dB then a 95% confidence margin implies an additional 13.2 dB of margin. If the standard deviation of SINR is 12 dB (as it is in many urban environments) then a 95% confidence margin implies an additional 19.7 dB of margin.

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This is equivalent to specifying a median edge of cell performance requirement of 8.6 Mbps (downlink) / 2.5 Mbps (uplink) with a 8 dB standard deviation, or a median performance requirement of 17.9 Mbps (downlink) / 7.5 Mbps (uplink) with a 12 dB standard deviation.

This level of performance is not likely to be achieved in a 10x10 MHz LTE network under “real world” (not a laboratory) conditions.

To clarify FirstNet’s intent around the 95% confidence threshold, please provide an example of how the calculation should be done assuming an urban environment with a 12dB standard deviation of SINR and the 6 raster data sets above. (This sample calculation will clarify the intent and proposed methodology behind the requirement).

**Answer:**

This is an objectives-based acquisition, which affords Offerors the flexibility to propose any unique features and/or functionality within their proposed solutions that meet FirstNet’s objectives. Offerors are expected to provide the network design variable input assumptions, such as fade margin, in-building penetration loss, noise figure, etc. in accordance with Section L.2.6, Assumptions, Conditions, and/or Exceptions, as well as L.3.2.1.2.2, Network Planning and Design.

**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A

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**Question #: 396**

**RFP Section Reference:** Section J, Attachment J-8, IOC/FOC Target Timeline

**Question:**

IOC-1 looks for a MNVO solution initially.

Why is 3GPP release 13 required for a MNVO – won’t this delay initial deployment?

**Answer:**

Mobile Virtual Network Operator (MVNO) services do not require 3GPP release 13 nor does IOC-1 align to release 13. Using existing infrastructure (as an MVNO or similar) is one way to achieve early functionality. It is not required.

**RFP Change (Yes/No):**

No

**RFP Change Description:**

N/A

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