Responses to Questions

1 through 666

Special Notice D15PS00295 – Nationwide Public Safety Broadband Network (NPSBN)

6/30/2015

Overview

This document contains answers to questions submitted to either the Contract Officer or to specialnoticequestions@firstnet.gov. This document does not represent all questions. Subsequent documents may be released to respond to additional questions.

Responses to Questions 1 through 666

1. In the Regional RAN Proposal (Category 2), what is the proposed acquisition approach for the nationwide core network? Is it a separate acquisition from the individual CLA-Regional RAN provider acquisition(s)? Please clarify and provide details. We are requesting that this answer be provided prior to or during Industry Day.

Document Reference: Special Notice Page 6 Section / Paragraph: 4.3.2

Answer:

The purpose of the Special Notice is to obtain feedback regarding the acquisition approach and strategy as it relates to Category One and Category Two. FirstNet has not made a determination as to the best possible strategy for meeting the objectives pertaining to a "nationwide" solution, and stakeholders are encouraged to offer feedback on or before July 27, 2015. However, as currently proposed in the Special Notice, the nationwide core network would be provided by the Category One offerors. Successful Category Two offers would have to be integrated into the nationwide core network by the successful Category One offeror.

Any details would be provided in a subsequent Request for Proposals (RFP) after FirstNet makes a determination.

2. When can we expect to receive Section 2 and Section 10?

Document Reference: General

Answer:

FirstNet assumes the references to "Section 2 and Section 10", refer to the Statement of Objectives (SOO) Appendices C-2 (Service Level Agreement for RAN Integration) and C-10 (FirstNet Cyber Hardness). These documents were intentionally omitted, as stated in the amendment to Special Notice D15PS00295B posted on the Federal Business Opportunities website (FBO) on April 27, 2015 at 9:06 pm. These documents are still being developed in consultation with states, tribes, territories, public safety stakeholders, and market participants, and may be provided at a later date or in a subsequent RFP.

3. A Sources Sought\RFI was also released for FirstNet Program Management Support Services under # NT000000-15-000XX in November 2014 and does not appear to be referenced in the Background section of this RFI. Is this a separate requirement that will not be included under the scope of this future RFP and if so, could FirstNet please provide a status update on this possible effort?

Document Reference: Special Notice Page 1 Section / Paragraph: 1

Answer:

The Sources Sought/Request for Information (RFI) # NT00000-15-000XX, was issued by National Institute of Standards and Technology (NIST) on behalf of NTIA/DOC (National Telecommunications and Information Administration / Department of Commerce) for program management support of the analysis of potential state opt out plans. Questions regarding the NIST Sources Sought/RFI should be directed to NIST. Information gathered in response to the NIST Sources Sought/RFI will not be included in the FirstNet Nationwide Public Safety Broadband Network (NPSBN) acquisition.

4. Does the agency anticipate issuing any additional RFIs for FirstNet?

Document Reference: Special Notice Page 1 Section / Paragraph: 1

Answer:

No, FirstNet does not currently anticipate issuing any additional RFI's regarding the NPSBN acquisition. However, if FirstNet determines that additional information is needed, it will post some form of communication, which may include an RFI, on FBO.

5. Paragraph 1, Bullet 4 references the prior RFI released for the FirstNet Comprehensive Network Solution; is this new RFI to be treated as the more modern version of the prior RFI and replace the prior RFI?

Document Reference: Special Notice Page 1 Section / Paragraph: 1

Answer:

The current document posted to FBO is not an RFI. It is a Special Notice that includes the release of draft RFP documents. This Special Notice does not replace any prior releases with regards to the NPSBN acquisition.

6. The agency outlines a period of performance in Paragraph 1 but does not comment on the number of contracts. How many awards are anticipated to be made from the future RFP?

Document Reference: Special Notice Page 9 Section / Paragraph: 1

Answer:

The purpose of the Special Notice is to obtain feedback regarding FirstNet's acquisition approach and strategy, helping inform FirstNet in its determination as to the potential number of awards.

Therefore, a determination with regard to the number of awards has not yet been made. FirstNet encourages stakeholders to submit feedback on or before July 27, 2015. Any additional information pertaining to the anticipated number of awards would be reflected in a subsequent RFP.

7. Has the agency established a contract type to be used for the resultant FirstNet award(s)?

Document Reference: General

Answer:

No, FirstNet has not yet made a determination regarding contract type, but will be reflected in a subsequent RFP.

8. Has an estimated award magnitude or project value been established for this effort regarding the value of an award made from a future RFP?

Document Reference: General

Answer:

Yes, as part of the acquisition process, in accordance with laws and regulations, an "independent government estimate" has been created for the NPSBN acquisition. However, that information will not be made public.

The "project value" should be identified as part of a potential offeror's solutions. The proposed value should correlate to the technical solution being offered consistent with FirstNet's proposed pricing methodology that would be reflected in a subsequent RFP.

Furthermore, the "project value" should be identified as part of a potential offeror's solutions. The proposed value should correlate to the technical solution being offered.

9. Does the agency expect to set-aside part of this requirement for small businesses and if so, could you provide more detail about the set-aside type, segment of work, and number of awards?

Document Reference: General

Answer:

The purpose of the Special Notice is to obtain feedback regarding the acquisition approach and strategy, which will inform FirstNet's determination as to any small business set-asides. FirstNet encourages stakeholders to offer feedback on or before July 27, 2015.

Therefore, a determination with regards to the potential for setting aside any portion of this acquisition has not yet been made. Any information pertaining to set-asides would be reflected in a subsequent RFP.

10. The agency referenced multiple RFIs issued for FirstNet market research in the Background section of this RFI. Does the agency anticipate issuing multiple RFPs for FirstNet or will one RFP be issued to encompass all of the needs identified from all of the prior RFIs?

Document Reference: Special Notice Page 1 Section / Paragraph: 1

Answer:

The purpose of the Special Notice is to obtain feedback with regards to the acquisition approach and strategy, which will inform FirstNet's determination as to the number of RFPs to be issued. FirstNet encourages stakeholders to provide feedback on or before July 27, 2015.

Therefore, a determination with regards to the number of RFPs has not yet been made.

11. Section 4.1.1 states "FirstNet seeks comments on all aspects of the acquisition strategy/approaches described in this notice, including feedback concerning FirstNet's proposed pricing concepts and operational architecture principles. Comments shall be submitted via email on or before, but no later than 12:00 p.m. Eastern Time on Monday July 27, 2015, utilizing the attached form." Please confirm this is a separate requirement than the 50-page Capabilities Statements.

Also, the "attached form" for submitting the comments requested does not appear to be on FBO. Please clarify this requirement and advise what Form to utilize for the response.

Document Reference: Special Notice Page 3 Section / Paragraph: 4.1.1

Answer:

In confirmation of your first question, FirstNet's request for comments on all aspects of the acquisition strategy/approaches described in the Special Notice, including feedback concerning FirstNet's proposed pricing concepts and operational architecture principles, is separate from the capabilities statements.

12. This offeror assumes that the 50 page limit for the Capabilities Statement does not include front matter such as Cover, Cover Letter, Table of Contents, Glossary, and any indexes or cross references the offeror may provide for the evaluator's convenience. Is this assumption correct? If not, please clarify specifically what material is included and not included in the 50 page limit.

Document Reference: Special Notice Page 4 Section / Paragraph: 4.1.4

Answer:

The assumption is correct; the 50-page limit for the capabilities statement does not include a Cover, Cover Letter, Table of Contents, or cross references.

For clarification, the capabilities statements are not being evaluated. They are being reviewed as part of market research in order to make a determination regarding outstanding topics, as so noted in the Special Notice.

13. Paragraph 4.1.3 of the Special Notice states that Capabilities Statements are submitted via email, implying only an electronic copy is required. Paragraph 4.1.4 of the Special Notices states that hard copies are required in addition to the electronic copy. Please clarify whether both hard and electronic copies are required.

Document Reference: Special Notice Page 0 Section / Paragraph: 4.1.3,4.1.4

Answer:

As stated in Paragraph 4.1.4 of the Special Notice, capabilities statements must be submitted by both email and in hard copy. Also, as stated in the Special Notice:

"… timeliness of receipt of any submission will be determined by the date and time the capabilities statement is received via email submission to the point of contact for AQD ..."

14. The table implies FOC will be completed 60 months or 5 years from contract award. However, the descriptions on pages 4-10 for IOCs 1-5 state that "this phase will begin x years after the completion of" the previous IOC phase. Page 9 states that FOC will be completed 5 years post contract award. Can you please confirm the IOC start and finish dates for each IOC and FOC so we may better understand the time phasing of the program. We would like to confirm whether FOC is to be completed within 5 years of contract award or a much longer timeframe.

Document Reference: C-8 IOC / FOC Page 0

Answer:

The information contained in the SOO, Appendix C-8, IOC/FOC Target Timeline, table and Figure 1, IOC/FOC Timeline, is correct. The initial sentence in each section stating "this phase will begin x years

after the completion of " the previous IOC is incorrect. The information issued in a subsequent RFP will be updated to reflect this correction.

15. Will the government please clarify the descriptions of the coverage objectives and milestones that are referenced throughout this section? We would greatly appreciate any descriptive information, even notional, that would clarify the objectives and milestones so the community can better size potential coverage and capacity modeling by project phase.

Document Reference: C-8 IOC / FOC Page 0

Answer:

The Government desires the most cost effective, best value solution. Therefore, it is up to the potential offerors to propose solutions based on available information, including, but not limited to, the SOO, Appendix C-1, Baseline Coverage Objective Maps.

Each potential offeror should propose necessary coverage and capacity, based on its solution, in order to support public safety use, including projected adoption and growth rates and planned excess capacity for each deployment phase of the network.

Also, refer to the SOO, Appendix C-1, Baseline Coverage Objective Maps.

16. Please provide coverage and throughput models for Hawaii and the Territories.

Document Reference: C-1 Coverage Objective Maps Page 1

Answer:

Coverage objective data was provided for Hawaii in Appendix C-1, Baseline Coverage Objective Maps, in the "shape_files", see FBO attachment entitled "Coverage_objective_maps_-_Shape_Files". The image file was inadvertently omitted from the April 27th FBO posting. The Special Notice was amended on May 13, 2015, on FBO to add the file, "(No Suggestions)". (See Amendment No. 5 to the Special Notice.)

However, coverage objectives are still being developed for the US Territories as the same datasets aren't currently available. Thus, available datasets in addition to inputs captured during Consultation will be used to develop coverage objectives for the Territories.

17. Document states, "Coverage is defined as having a minimum of 768 Kbps downlink and 256 Kbps uplink at the cell edge with 50% loading." Is this per cell or per user?

Document Reference: C-1 Coverage Objective Maps Page 1

Answer:

The 768 Kbps downlink and 256 Kbps uplink is per user.

18. "Table 1 Coverage Throughput Per Sq Mi Definition"—is this per cell or per user?

Document Reference: C-1 Coverage Objective Maps Page 1

Answer:

Table 1 Coverage, contained in Appendix C-1, Baseline Coverage Objective Maps, will be deleted in a subsequent RFP. However, The current RFP documents do not specify "throughput". This information is provided for purposes of coverage definition only. However, as FirstNet gathers additional information on eligible users and estimated usage through data collection efforts, more data may be provided on aggregate demand per grid to ensure the throughput minimums could be achieved by each user. (Also, see response to Special Notice Question #19.)

19. Section 1 states, "The non-color regions represent areas identified as needing on-demand temporary or extended range coverage and capacity solutions." Please provide the minimum throughput requirements for these non-color areas.

Document Reference: C-1 Coverage Objective Maps Page 1

Answer:

For the purposes of defining coverage and as stated in Appendix C-1, Baseline Coverage Objective Maps, Section 1, Baseline Coverage Requirements, "Coverage is defined as having a minimum of 768Kbps downlink and 256 Kbps uplink at the cell edge with 50% loading. Each individual grid will be assessed for meeting the definition of coverage in the color-coded areas. Only those grid blocks that have more than 50% coverage will be considered acceptable. " The current RFP documents do not specify "throughput". This information is provided for purposes of coverage definition only. However, as FirstNet gathers additional information on eligible users and estimated usage through data collection efforts, more data may be provided on aggregate demand per grid to ensure the throughput minimums could be achieved by each user.

20. How does FirstNet envision providing coverage and capacity to the non-color regions via on-demand temporary or extended range solutions? In many cases, these areas are very large.

Document Reference: C-1 Coverage Objective Maps Page 1

Answer:

FirstNet's objective is to provide nationwide coverage. In response to a subsequent RFP, offerors should explain their solution and may consider deployables, satellite, aerials, or other innovative technologies in providing coverage to non-color regions.

21. Please provide a description and definition of "on-demand temporary".

Document Reference: C-1 Coverage Objective Maps Page 1

Answer:

"On-demand temporary" coverage is defined as NPSBN coverage which is available when needed for a short term to augment coverage or capacity unsupported by fixed permanent terrestrial coverage.

22. Please add deployables and MCUs into Figure 1 SV-1 NPSBN System Interfaces.

Document Reference: C-4 SV-1 and StdV-1 Page 2

Answer:

FirstNet will consider including this information. If changed, such information will be reflected in a subsequent RFP release.

23. Definition of the term MCU is inconsistent. In C-5 Section 9 MCU is Mobile Control Unit. In all other places in RFP MCU is Mobile Communications Unit. Please clarify.

Document Reference: General Page 0 Section / Paragraph: C-5 pg 1-12, C-8 pg2, 8, C-9 pg 3,4,44, Terms of Reference pg 4

Answer:

"MCU" means Mobile Communications Unit. SOO Appendix C-5 Standards View at FOC (StdV-2) will be updated accordingly.

24. What is the purpose/intent of the 2nd tab/worksheet in the comment form entitled "Report - FIRSNET Proposal." Is the offeror required to do something with this part of the form? If so, please provide instructions.

Document Reference: General Page 0

Answer:

The "report tab" is a report of the functions by functional owner. No, the respondents are not required to do anything with this part of the form, it is for informational purposes only. Only the comment matrix should be completed by respondents.

25. Paragraph 4.1.1 of the Special Notice states that comments are to be submitted on the "attached form", assumed to be file "D15PS00295_C-7_Operational_Architecture_Comments_Form.xlsx". Must all comments be submitted on this form, or may the offeror provide a separate document for more lengthy comments that may not work well with the form?

Document Reference: Special Notice Page 3 Section / Paragraph: 4.1.1

Answer:

The form for submitting questions and comments is titled "Special Notice Attachment - Question or Comment Template". There is a link to it from D15PS00295 on FBO. There is no limit to the length of the cell in the template. The file D15PS00295_C-7_Operational_Architecture_Comments_Form.xlsx is strictly for commenting on the Operational Architecture. However, FirstNet requests comments to be limited to one page (front and back) which can be submitted with the template form with a cross walk to any attached page. This limitation ensures the comments can be reviewed in an expedited manner for inclusion into the acquisition process without causing delay.

26. Paragraph 4.1.4 of the Special Notice states that the offeror is to send the hardcopies of the Capabilities Statement to the provided address, which implies shipping. May these hardcopies be hand delivered? If so, please provide delivery instructions.

Document Reference: Special Notice Page 5 Section / Paragraph: 4.1.4

Answer:

Yes, the capabilities statements may be hand delivered to the address identified in the Special Notice. The AQD facility is a secured facility and the guard will contact Ms. Callahan upon a delivery.

27. I am having trouble accessing the zip files for the coverage objective maps – shape files because my firm does not have the software that supports the various different extensions for the files. Would it be possible to send or post them in a different format, such as pdf, excel or windows viewer?

Document Reference: C-1 Coverage Objective Maps

Answer:

The coverage objective maps have been provided in two formats – a shape file and an image file. The .png image files can be opened by most image viewers.

28. With a significant number of RFPs expected to be needed for a Category 2 Acquisition Approach, what is the expected IOC timeline for a Category 2 deployment?

Document Reference: C-8 IOC / FOC Page 0 Section / Paragraph: 2

Answer:

The purpose of the Special Notice is to obtain feedback regarding the acquisition approach and strategy which would also include a determination as to the potential number of RFPs released as well as number of subsequent awards. FirstNet welcomes stakeholders to submit questions and/or comments in accordance with the instructions stated in the Special Notice.

FirstNet does not anticipate any of those determinations would have an impact on the IOC Timeline as reflected in the current draft Appendix C-8 IOC FOC Target Timeline. However, any change in information would be reflected in a subsequent RFP.

29. Please provide the passwords to unlock this spreadsheet, so I can better manipulate the data.

It would make my job much easier and I would be able to work smarter and more quickly

Document Reference: C-7 Operational Architecture

Answer:

Thank you for your request. However, the spread sheet fields have been locked for a reason and the information needs to be populated as instructed. If you having difficulty completing the spread sheet please submit a question asking for additional details and/or instructions specific to your problem so that it may be disseminated to all per the instructions contained in the Special Notice.

30.

Will you please add this email address to your distribution list for FirstNet updates and procurement document distribution?

Document Reference: General

Answer:

FirstNet does not maintain an email distribution list for procurement-related notices and documents because FBO is the designated as the Government Point of Entry, in accordance with FAR 2.101 and 5.102, for federal agencies publicizing procurement-related notices and actions. Any and all documents released regarding FirstNet's NPSBN acquisition will be made available on FBO at www.fbo.gov. Please ensure you check the site frequently. You can search for either FirstNet or D15PS00295.

31. We are very interested in opportunities to partner with you as you develop the Broadband initiative.

Is there a chance that we may meet briefly to get better acquainted?

Document Reference: General

Answer:

Vendors who are interested in meeting with FirstNet should complete the FirstNet Vendor Meeting Request Form, found on www.FirstNet.gov, and submit it to FirstNetIndustryLiaison@firstnet.gov. FirstNet reserves the right to request additional information and/or clarification on the submission in order to make a determination regarding sessions and potential participants. Once the determination has been made to conduct a session, the FirstNet Industry Liaison will contact the requesting party to schedule the meeting.

32. Our expertise can assist your agency in expanding the coverage and reach of meetings using a variety of video applications and production/distribution techniques. How might we arrange a presentation of our capabilities?

Document Reference: General

Answer:

Vendors who are interested in meeting with FirstNet should complete the FirstNet Vendor Meeting Request Form, found on www.FirstNet.gov, and submit it to FirstNetIndustryLiaison@firstnet.gov. FirstNet reserves the right to request additional information and/or clarification on the submission in order to make a determination regarding sessions and potential participants. Once the determination has been made to conduct a session, the FirstNet Industry Liaison will contact the requesting party to schedule the meeting.

33. Please advise of the status of correction this error. States that 'end-to-end availability of 99.9% as defined in Section C-6, Quality Assurance Surveillance Plan'. On page 27 of C-6 Quality Assurance Surveillance Plan, for the Metric 'Availability' the Acceptable Performance Level' is defined as '99.99% availability'. Therefore, the C.5.7 objective in the SOO document should be 'end-to-end availability of 99.99%' instead of the 99.9%.

Document Reference: C - SOO

Answer:

As noted in the User Service Availability Objective 7, the service availability figure "includes the reliability effects of all network components (core, gateways, eNodeBs, and backhaul) as well as the environmental survivability of the infrastructure and the benefits derived from deployable units."

As of the release of the draft RFP, the SOO reliability figure of 99.9% is correct; based upon comments the government receives, the draft RFP is subject to change.

34. Could you please clarify the due date for Vendor Capabilities Statements for vendors wishing to partner and/or subcontract?

Also, is there a template for the Capabilities Statement response (other than page limits and font size) or is template up to the vendor?

Document Reference: General

Answer:

Vendors are free to partner or contract among themselves. As a courtesy, FirstNet will compile a list of those offerors that wish to be incorporated on a list and are interested in subcontracting and partnering opportunities with other potential offerors. If interested, please submit the business name and size and point of contact (name, e-mail address, phone number, etc.) to the Contracting Officer via email at Terrie_Callahan@ibc.doi.gov. All e-mail inquiries shall have "Teaming List – Reference # D15PS00295" included in the subject line. This information will be made available to all potential offerors via posting through the FirstNet website at www.firstnet.gov. It is not required to be listed on the teaming list in order to submit a proposal to any resultant RFP. This is optional and solely intended to be an avenue to facilitate potential subcontracting and partnering opportunities and FirstNet accepts no liability for any resultant outcomes.

FirstNet requests the submission of capabilities statements on or before, but no later than 12:00 p.m. Eastern Time on Monday July 27, 2015. Please send a signed original and two hard copies, and one CD, to DOI-IBC-AQD, 381 Elden Street, 4th Floor, Herndon, VA 20170-4817, Attn: Terrie L. Callahan, Contracting Officer. The electronic copy shall be sent via email to Terrie_Callahan@ibc.doi.gov.

35. FirstNet has mandated its next generation solution support mission critical availability. Both FirstNet, and industry have acknowledged that achieving mission critical availability starts with security being built into any solution from its inception, and not as an after the fact consideration/requirement.

Referencing Public Law 112-96 ("ensures the safety, security, and resiliency of the network, including requirements for protecting and monitoring the network to protect against cyberattack") and FirstNet's own statements confirming the importance of security in any proposed solution, when can industry expect to receive the Appendix C-10, FirstNet Cyber Hardness Requirements to ensure security is incorporated into any proposed solution from its inception?

Document Reference: General

Answer:

Appendix C-10, FirstNet Cyber Hardness Requirements, will be included in a subsequent RFP and may be released in a draft form at FirstNet's discretion. Appendix C-10 was intentionally omitted, as stated in the amendment to the Special Notice D15PS00295B posted on FBO on April 27, 2015 at 9:06 pm. Appendix C-10 is still being developed in consultation with states, tribes, territories, public safety stakeholders, and market participants, and may be provided at a later date or in a subsequent RFP.

36. Please also provide the email address where we can send vendor capabilities list.

- Will it be possible to obtain copies of technical presentation given by CTO, program manager and Dir. State planning ?

- We would also like to request a meeting to discuss service we can provide (also submitted earlier) with the technical team leaders

Document Reference: General

Answer:

FirstNet requests the submission of capabilities statements, including a signed original, two hard copies, and one CD, to DOI-IBC-AQD, 381 Elden Street, 4th Floor, Herndon, VA 20170-4817, Attn: Terrie L. Callahan, Contracting Officer. The electronic copy shall be sent via email to Terrie_Callahan@ibc.doi.gov.

Copies of presentations from Industry Day are available via http://www.firstnet.gov/about/doing-business-FirstNet.

Vendors who are interested in meeting with FirstNet should complete the FirstNet Vendor Meeting Request Form, found on www.FirstNet.gov, and submit it to FirstNetIndustryLiaison@firstnet.gov. FirstNet reserves the right to request additional information and/or clarification on the submission in

order to make a determination regarding sessions and potential participants. Once the determination has been made to conduct a session, the FirstNet Industry Liaison will contact the requesting party to schedule the meeting.

37. "Location Services. " A.7.1.10 is missing from all C-7 Appendices re Operational Architecture Functional Descriptions.

Document Reference: C-9 Use Cases Page 0 Section / Paragraph: A.7.1.10

Answer:

References to "Location Services A.7.1.10" in Appendix C-9 are incorrect. They should be replaced with "A.7.1.2, Location Services Product Life Cycle Management". This will be corrected in a subsequent RFP.

38. "Location Services. " A.7.1.10 is missing from all C-7 Appendices re Operational Architecture Functional Descriptions.

Document Reference: C-9 Use Cases Page 0 Section / Paragraph: A.7.1.10

Answer:

References to "Location Services A.7.1.10" in Appendix C-9 are incorrect. They should be replaced with "A.7.1.2, Location Services Product Life Cycle Management". This will be corrected in a subsequent RFP

39. Our company is interested in partnering with other companies and we would like to added to your list of companies interested in partnering. How do we go about getting on your list?

Document Reference: General

Answer:

Please submit the business name and size and point of contact (name, e-mail address, phone number, etc.) to the Contracting Officer via email at Terrie_Callahan@ibc.doi.gov. All e-mail inquiries shall have "Teaming List – Reference # D15PS00295" included in the subject line. This information will be made available to all potential offerors via posting through the FirstNet website at www.firstnet.gov. It is not required to be listed on the teaming list in order to submit a proposal to any resultant RFP. This is optional and solely intended to be an avenue to facilitate potential subcontracting and partnering opportunities and FirstNet accepts no liability for any resultant outcomes.

40. Can you explain the requirement to be financially sustainable outlined in the Special Notice and FirstNet's financial model presentation from Industry day and how excess revenue is to be used?

Answer:

The Special Notice, and the Industry Day presentation, demonstrated FirstNet's conceptual model for becoming financially sustainable. In addition to up to $6.5 billion in cash, offeror(s) could receive revenue from public safety user fees as well as any value derived from using excess network capacity, depending on whether the offeror was operating under Category One or Category Two. In return, offerors would propose a solution consistent with the objectives provided in the Special Notice. For example, SOO Objective 13, Lifecycle Innovation, suggests ongoing reinvestment into the network by requiring an evolution of the NPSBN to stay current with 3GPP standards as well as those unique public safety features noted in Appendix C-8, IOC-FOC Timeline.

In addition, FirstNet requests that offeror(s) propose regular fixed payments to FirstNet to support ongoing program costs, such as costs associated with maintaining FirstNet headquarters. Those fixed payments would be determined as part of offerors' proposals and would allow FirstNet to become financially sustainable by providing resources to support activities not provided for within the scope of the contract(s) discussed in the Special Notice. Actual revenue collections from public safety user fees or from use of excess network capacity, whether higher or lower than initial expectations, would not change the fixed payment to FirstNet or offerors' obligation to the meet the objectives of the acquisition. After meeting FirstNet's stated objectives in the RFP and the subsequent award(s), Offerors' profits from excess revenues received need not be re-invested in the network.

41. I understand we cannot have discussions with FirstNet staff other than as directed through the contracting officer. With those restrictions, how do we get technical questions answered?

Answer:

Submit a question as noted in the Special Notice, and the answers will be published to all potential offerors. The form for submitting questions is titled "Special Notice Attachment - Question or Comment Template". There is a link to it from D15PS00295 on FBO.

42. It appears that FirstNet has changed its coverage moto from "every square meter" to something more affordable but still focused on where public safety needs coverage. Can you explain that in more detail?

Answer:

The maps that FirstNet released show the coverage objectives and serve as a tool to create dialogue on what is important for public safety for a given state or territory. The maps will be updated through the

consultation process. The RFP will be based upon the updated maps. In addition, FirstNet anticipates use of temporary on-demand coverage as outlined in the SOO.

43. With the recent emphasis on situational awareness from the public, i.e., social media, is there an interest within FirstNet to include gathering situational awareness directly from the public and having that information distributed directly to First Responders?

Answer:

Situational awareness is likely to be a valuable application of which public safety will make much use. However, the details of which applications are adopted and their specific functionality is an operational detail that will be decided on by public safety entity users as the network matures. At the moment, it is FirstNet's intent to create a network, and an applications ecosystem, that is capable of implementing any number of applications.

44. Your financial sustainability appears to be contingent upon the size of the user base. You mentioned a number ranging from 4 million to more than 10 million. Could you explain how you came up with those numbers and why there is such a wide range?

Answer:

Much of the information regarding the number of public safety users in various categories is available from the Bureau of Labor Statistics and other government data sources. The range is based on FirstNet's Public Notice that sought comments on the preliminary definition and scope of the term "public safety entity" from FirstNet's enabling legislation, as well as independent market research data. The more restrictive the definition, the lower the user base, and the more inclusive the definition, the larger the potential user base, subject in both cases to the anticipated priority and preemption functionality of the network. FirstNet continues to seek feedback regarding the definition of "public safety entity."

45. Will FirstNet allow non-FirstNet handset to use the FirstNet network?

Answer:

The devices team is examining whether non-FirstNet handsets will be allowed to use the FirstNet network. Obviously, any device will require band 14 within the device to access the FirstNet network. As noted in FirstNet's Second Public Notice, published in the Federal Register on March 13, 2015, seeking comment on Further Proposed Interpretations of Parts of the Middle Class Tax Relief and Job Creation Act of 2012, and as required by the Act, FirstNet is required to promote competition in the equipment market, including devices for public safety communications, by requiring, among other things, that equipment for use on the network be built to open, non-proprietary, commercially available standards. The Second Notice, FirstNet preliminarily concluded that such requirement applies only to

connectivity to the network and is not intended to restrict the operating systems upon which handsets operate. FirstNet is continuing to seek feedback and complete its analysis of this requirement.

46. As you get more granularity in your business case and you get through to consultation efforts will you be providing more detail regarding your business model?

Answer:

To the extent additional information becomes available that would aid FirstNet in acquiring the best possible solution for public safety, FirstNet will make such additional information available either by updating the draft RFP documents, issuing future public notices, or via the forthcoming RFP release.

47. If the network will be utilizing existing buildings were towers, who will be signing the lease on behalf of FirstNet? Who will be determining rent amounts?

Answer:

Under the framework proposed in the Special Notice, FirstNet's assumption is that ownership of leases will be determined as part of the solution proposed to FirstNet. Offerors will propose solutions that meet the structures laid out in either Category One or Category Two, including any equipment and infrastructure required to meet FirstNet's stated objectives.

48. There has been discussion in the past suggesting that agencies might receive "user fee credits" in exchange for making assets available for FirstNet's use. Is this still a consideration

Answer:

FirstNet will leverage, to the maximum extent economically desirable, existing commercial, state, tribal, and local infrastructure . It is unclear, at this time, exactly how, or if, existing infrastructure will be leveraged in the solution. It is unlikely, however, that FirstNet will provide credits for the use of infrastructure, which is currently anticipated to be provided by offerors as part of their proposed solutions.

49. The network is going to be quite complex and will include base stations, towers, backhaul, a centralized core, and probably and applications server in a data center somewhere. When something doesn't work who has the responsibility of isolating the problem and correcting the issues?

Answer:

The Operational Architecture (SOO Appendix C-7) that was included in the draft RFP release defines tasks that must be accomplished in order to make the NPSBN operational, and it defines who has ownership of each individual task. FirstNet has defined responsibility for a small number of these but is

soliciting input as to the most efficient way to allocate responsibility and accountability and ensure an operating network.

50. How is FirstNet, and how are potential offerors, to make use of existing public and private assets and how will FirstNet ensure that we do not overbuild where assets exist today?

Answer:

FirstNet anticipates that offerors will provide nationwide or regional solutions using infrastructure that they own, infrastructure that they have access to through existing partnerships, or entirely new infrastructure. As additional sites and other infrastructure are required, offerors would have the responsibility of negotiating new leases or initiating new construction. FirstNet anticipates that the cost of existing infrastructure use, and that of obtaining new infrastructure via lease or construction, would be included in an offeror's proposal to FirstNet.

51. Could you talk about the difference in the deployment process within states that opt in versus states that opt out?

Answer:

When a state seeks to opt-out of the awarded FirstNet Radio Access Network (RAN) deployment, that state is accepting responsibility for building and maintaining the RAN in such state and ensuring that its connection to the FirstNet core remains operational and compliant with FirstNet interface requirements and network policies. Prior to a state being authorized to deploy the RAN in its state, the state must go through a process inclusive of a number of steps and approvals. This process is outlined in Section 6302(e) of the Middle Class Tax Relief and Job Creation Act of 2012 , and has been discussed in detail in FirstNet's Notice and Request for Comments published on the Federal Register (https://federalregister.gov) on March 13, 2015. The process includes at high level, among other things, the following steps:

• The Governor must provide notice of the state's intention to deploy the RAN within its state within 90 days of receiving the proposed plan for the build out of the network in that state from FirstNet; If no notice is provided within 90 days, the deployment will proceed pursuant to FirstNet's proposed plan;

• The state is then required to develop its own requests for proposal and deliver an alternate plan to the FCC, all within 180 days of the Governor's decision;

• The FCC will either approve or deny the request to implement the alternate plan based on interoperability criteria in the Act;

• If denied, the deployment will proceed pursuant to FirstNet's proposed plan;

• If approved, the state may apply to the National Telecommunications and Information Administration ("NTIA") for a grant to help with construction of the RAN, and must apply to NTIA for approval to enter into a spectrum capacity lease with FirstNet, both based on approval criteria set forth in the Act;

• If approved to enter into a spectrum capacity lease, the state must then negotiate the terms of the lease with FirstNet and enter into the lease with FirstNet;

• Only at that point, may the construction and deployment of the RAN by the state commence.

52. Should offerors supply chain management and logistics capabilities relative site acquisition be included in the capability statements that are due on July 27?

Answer:

Yes, offerors should provide this information in capabilities statements. Details about what information should be provided in the capabilities statement is found in Section 4.1.3 of the Special Notice.

53. During the course of your presentation at Industry Day you said that it is important for us to begin to form partnerships now. Can you give us any guidance on what smaller entities should be doing now to build these relationships?

Answer:

There are a lot of pieces to this and nearly all will require partners in order to provide what FirstNet requires. You should ensure that you understand the FirstNet objectives and what competencies and products you can provide and work to find partners who need what you can offer. FirstNet will post a list of those companies interested in teaming on FBO. If you wish to be added to the teaming list, please submit the business name and size and point of contact (name, e-mail address, phone number, etc.) to the Contracting Officer via email at Terrie_Callahan@ibc.doi.gov. All e-mail inquiries shall have "Teaming List – Reference # D15PS00295" included in the subject line. This information will be made available to all potential offerors via posting through the FirstNet website at www.firstnet.gov. It is not required to be listed on the teaming list in order to submit a proposal to any resultant RFP. This is optional and solely intended to be an avenue to facilitate potential subcontracting and partnering opportunities and FirstNet accepts no liability for any resultant outcomes.

54. Will there only be one application vendor chosen to deliver the IMS infrastructure for FirstNet?

Answer:

As outlined in the SOO, Objective #5, FirstNet is seeking an applications ecosystem that would enable a vibrant community of application developers. As currently proposed in the Special Notice, FirstNet does not anticipate direct involvement in the selection of any application vendor(s). FirstNet is seeking feedback on its proposed acquisition approach in response to the Special Notice.

55. You have articulated two categories of proposals that you are prepared to receive: Category 1, a single nationwide provider of all services, and Category 2, a regional RAN and CLA solution. Would you consider other alternatives, perhaps a Category 3, that divides the assets and responsibilities up a little differently?

Answer:

Through the Special Notice, FirstNet seeks feedback and comments, and this type of information is welcome. FirstNet has put forth its notional concept, but if you see something that may be a better value to FirstNet's mission, then please submit it for consideration as strategies and approaches are finalized.

56. Appendix C-1 does not indicate the degree of indoor versus outdoor coverage objectives. Is the intent to leave those details until the release of the final RFP?

Answer:

As part of FirstNet's outreach effort, FirstNet personnel are engaging in dialogue with stakeholders about coverage objectives. Specific in-building coverage requirements will be a part of that discussion and will lead FirstNet to the coverage objectives and updated maps that will be released as part of the RFP.

57. Do you have a definition of a "sustainable business model?"

Answer:

A sustainable business model for FirstNet is one where broadband capabilities are made available to public safety entities, consistent with FirstNet's objectives, direct expenditures from FirstNet to achieve the objectives and support FirstNet program overhead costs do not exceed $7 billion provided by Congress.

58. Will there be a small business target or any mandatory contracting with small businesses?

Answer:

The FAR requires that an acquisition of this size have a small business subcontracting plan. The purpose of the Special Notice is to obtain feedback regarding the acquisition approach and strategy, which will inform FirstNet's determination as to any small business set-asides. FirstNet encourages stakeholders to offer feedback on or before July 27, 2015. Any information pertaining to set-asides would be reflected in a subsequent RFP.

59. State opt-out decisions are likely to affect your financial sustainability picture and the "pricing" of proposals that you get from offerors. How are you going to manage that given that the timing of opt-out decisions could likely occur after the RFP release and initial responses?

Answer:

The timing is quite difficult and FirstNet does understand that approved opt-out decisions may change the financial picture. It is FirstNet's intent to seek an "all opt-in solution" with associated proposals and pricing. If opt-out decisions occur, FirstNet has a number of mechanisms it can use to allow scope and price changes to offerors' proposals if they are required.

60. The recent incident of Baltimore brings to mind the need for interoperability among agencies. The Maryland National Guard was activated, they are using their network along with their own devices. The state and city policy are also there. How does FirstNet envision all of this coming together into one interoperable network?

Answer:

FirstNet's vision is to offer a compelling and competitive service so that all of these entities, including the National Guard, become subscribers to FirstNet. SOO Objective #1 outlines the need for a nationwide, interoperable, public safety broadband data network that leverages commercial standards.

FirstNet has dedicated state, tribal, and federal outreach liaisons that are coordinating across all of our potential stakeholder agencies.

61. With respect to traditional data center applications such as CAD systems and cloud services, do you anticipate a single source solution, or various public safety enterprises deploying their own solution?

Answer:

FirstNet has not made any final determinations on the applications ecosystem architecture. Either scenario could be a possibility, and more detail is expected to be outlined in the final RFP.

62. In the draft RP, you talk about base roaming agreement prior to the NPSBN coming online. Could you elaborate a bit more on that?

Answer:

The intent is to show the possibility of deploying a mobile virtual network operator (MVNO) solution quite quickly after contract award to speed initial deployment to public safety, and all of the potential interfaces that might be affected. The details will be determined by the offeror's solution that best meets FirstNet's objectives.

63. You have talked about cloud services being an offering that you are pursuing. Have you solicited input, during your outreach, as to the level of interest from public safety in using cloud services?

Answer:

Yes, FirstNet is consulting with public safety about the applications that are being used today, and the type of applications that may generate interest in the future. FirstNet has not specifically pursued the cloud question, but it is something for consideration.

64. This section refers to offerors providing Band 14 enabled devices. However, it is the State's opinion that FirstNet's approach was to encourage a broad device "ecosystem" without limiting the number of device suppliers. Can FirstNet please clarify if they are requesting that the RFP respondents are to offer Band 14 devices or if they are to encourage and develop a broad device ecosystem?

Document Reference: Special Notice Page 4 Section / Paragraph: Section 4.1.3.2

Answer:

FirstNet seeks feedback on how best to maximize the offerings and capabilities of Band 14 enabled devices. Potential offerors should explain how their offering, and that of their partners, will meet FirstNet's objectives for devices as stated in the SOO Section C.5.4.

65. FirstNet refers to offerors having access to the Band 14 Excess Network Capacity. Where does FirstNet request the offeror to explain how it will provide the priority to public safety in the event of an emergency?

Document Reference: Special Notice Page 7 Section / Paragraph: Section 4.5

Answer:

FirstNet's objectives regarding priority and preemption are outlined in the Statement of Objectives, section C.5.10, Priority Services.

66. Will a draft version of Appendix C-2 be made available?

Document Reference: C - SOO Page 6 Section / Paragraph: Table 1

Answer:

SOO Appendix C-2, Service Level Agreement for Radio Access Network (RAN) Integration, may be provided at a later date or in a subsequent RFP. However, FirstNet is looking for feedback on the obligations necessary to achieve seamless operation of the network if a state chooses to take responsibility for building, maintaining, operating its own RAN.

67. Will a draft version of Appendix C-10 be made available?

Document Reference: C - SOO Page 6 Section / Paragraph: Table 1

Answer:

FirstNet expects to release SOO Appendix C-10, FirstNet Cyber Hardness Requirements, in a subsequent RFP.

68. Listed metrics in the table do not specifically reference SOO Objectives 3 (Pricing), 4 (Devices, although there are specific device metrics), 11 (Integration of Opt-Out RANs), 12 (Integration of existing infrastructure), 13 (Lifecycle Innovation), 16 (Compliance with the Act). Will other performance metrics be established to cover these objectives?

Document Reference: C-6 QASP Page 21 Section / Paragraph: Appendix C-6

Answer:

Page 1 of the QASP states "[t]he Surveillance Matrix, below, lists a sampling of representative metrics and surveillance methods that FirstNet anticipates using in its validation of SOO compliance. FirstNet seeks comment on this approach in general as well as specific comments regarding metrics and/or surveillance methods." FirstNet anticipates that the QASP released as part of the RFP will have additional information, including performance metrics.

69. When will the Government release a draft of the evaluation criteria, since the criteria significantly influence the manner in which Contractors respond to solicitations from a technical and pricing perspective?

Document Reference: General

Answer:

FirstNet anticipates issuing the evaluation criteria (Section M) in the subsequent RFP. Once the RFP has been released, FirstNet will ensure sufficient time for any questions with regards to all sections of the RFP, including any evaluation criteria for the NPSBN acquisition.

70. When will the Government release further requirements or minimum standards related to ancillary technologies such as deployables, satellite communications, etc.

Document Reference: General Page 0

Answer:

FirstNet is seeking feedback pertaining to ancillary technologies as they pertain to Category One and/or Category Two of the Special Notice and Statement of Objectives, objective seven.

71. How will coverage and throughputs be demonstrated by the offeror? We assume that industry standard propagation maps would be used to determine coverage. Is that correct?

Document Reference: C-1 Coverage Objective Maps Page 1 Section / Paragraph: Section 1

Answer:

Any instructions with regard to submission of proposal information will be specified in Section L of the subsequent RFP. Also, the final RFP (Section M) will define FirstNet's methodology for how offerors will be assessed in this area. Once the RFP has been released, FirstNet will ensure sufficient time for any questions with regard to all sections of the RFP, including any evaluation criteria for the NPSBN acquisition.

72. How should the offeror interpret the throughput requirement that defines coverage? Is it up to the offeror to define the outdoor link budget that will achieve the required throughput?

Document Reference: C-1 Coverage Objective Maps Page 1 Section / Paragraph: Section 1, Table 1

Answer:

Yes, it is up to the offeror to define the radio design. FirstNet will provide coverage requirements and criteria for assessment in the RFP.

73. Will any non-compliance with "SHALL" statements immediate preclude the offeror from consideration? Does the offeror have the option to indicate where they comply or do not comply with the minimum technical standards?

Document Reference: C-3 FCC Tab Page 0

Answer:

During the evaluation of the proposed solution, if the offeror's solution failed to demonstrate compliance with any required term and/or condition as stated in the RFP, they could potentially be removed from further consideration.

74. When FirstNet references "SHALL" compliance with a particular specification, how should this be interpreted with regards to both the mandatory and optional aspects of the specification?

Document Reference: C-3 FCC Tab Page 0

Answer:

The RFP will clearly identify those terms and conditions that must (shall) be compliant and those that are optional.

75. Since requirements are different for Category 1 and Category 2 offerors, can FirstNet indicate the requirements for each category (or show them in separate documents)?

Document Reference: C-3 FCC Tab Page 0

Answer:

The purpose of the Special Notice is to obtain feedback in order to better understand industry's capabilities, analyze the recommendations and alternative approaches, and determine how to best leverage existing capabilities and best practices in order to meet public safety needs. This includes a determination with regards to Category One, Category Two, and/or any other viable approaches. FirstNet may provide additional information regarding such requirements in a subsequent RFP.

76. MOCN is not mentioned as a possible network architecture. Is it up to the offeror to determine the network architecture that is best suited for the job? Does FirstNet have a preference on how RAN sharing occurs?

Document Reference: C-4 SV-1 and StdV-1 Page 0

Answer:

FirstNet seeks feedback on the concepts included in the Special Notice, and the network architecture options that best enable a comprehensive nationwide network solution. Offerors would propose a solution in response to the subsequent RFP.

77. Can you explain the Green FirstNet cloud around yellow functional elements? What is meant by the FirstNet cloud from an implementation standpoint?

Document Reference: C-4 SV-1 and StdV-1 Page 2 Section / Paragraph: Figure 1

Answer:

The green cloud represents organizational ownership from a governance perspective. While the offeror has ownership of the yellow functions/systems in the diagram, FirstNet has overall ownership of the collection of functions within the green cloud. The colors pertain to the legend for the operational architecture in the SOO Appendix C-7, Operational Architecture, for which FirstNet seeks feedback.

78. In C-4, Figure 1 there is an MVNO box connecting to multiple commercial carriers. Can you clarify this architecture and purpose? Depending on the desired functionality (e.g., if public safety users can utilize the commercial network) it may be better to have offerors propose a solution versus predetermining that the solution is an MVNO. Who is the MVNO? What is the use case for the MVNO box? Is there an intent to migrate off of this as the NPSBN gets built?

Document Reference: C-4 SV-1 and StdV-1 Page 2 Section / Paragraph: Figure 1

Answer:

FirstNet seeks feedback on early service offerings, including non-Band 14 deployment in accordance with SOO Objective 6, including an MVNO solution as specified in Appendix C-8, the IOC/FOC Target Timeline.

79. What are the expectations for IOC1 commercial network usage? Will it be all MVNO? Will it include just branding or other elements, as well?

Document Reference: C-8 IOC / FOC Page 4 Section / Paragraph: Section 4.1.1

Answer:

FirstNet seeks feedback on early service offerings, including non-Band 14 deployment in accordance with SOO Objective 6, including an MVNO solution as specified in Appendix C-8, the IOC/FOC Target Timeline.

80. Assuming only one Category 1 bidder will be awarded, are subcontractors for category 1 bidders permitted to have an agreement with more than one Category 1 bidder?

Document Reference: Special Notice Page 0 Section / Paragraph: Section 4.3

Answer:

From the Government's perspective, yes, a company can be a subcontractor to as many Prime Category One offerors as they choose.

81. Should there be a "Category 3" that enables an offeror to respond on all the "not Category 2" functions, i.e., non-RAN functions? Would this better enable integration of opt out states (i.e., Category 3 bidders would not be affected by opt in/out since they do not include RAN functions)?

Document Reference: Special Notice Page 0 Section / Paragraph: Section 4.3

Answer:

FirstNet seeks feedback on the acquisition approach and welcomes suggestions regarding alternatives that meet FirstNet's stated objectives.

82. If there is no separate category as defined in [81] above (i.e., a Category 3 that only provides some or all non-RAN functions), who will perform Category 1 tasks, e.g., device procurement and application ecosystem, if a Category 2 approach is selected?

Document Reference: Special Notice Page 0 Section / Paragraph: Section 4.3

Answer:

FirstNet envisions that the Category 1 provider will provide non-RAN functions in a Category 2 region. Under the Special Notice, Category 2 is limited to the RAN and Covered Leasing Agreement high level functions only. Respondents are encouraged to provide feedback on this approach.

83. Can a Category 1 or 2 bidder piece together a network in the state from others (e.g., subcontractors, partners)? Corollary: can a network carrier just sign up as a subcontractor to build a subset of a state's geography?

Document Reference: Special Notice Page 0 Section / Paragraph: Section 4.3

Answer:

Yes, a Category One or Two offeror can encompass network offerings from one or more firms (e.g., subcontractors) as long as the proposed approach would best meet FirstNet's stated objectives which include nationwide coverage.

84. Does failure to bid directly in the RFP or not being part of a bidding team exclude an entity from being used as a subcontractor (i.e., do all national, regional, and local partners need to be defined in the bid or can they be developed over time)?

Document Reference: Special Notice Page 0 Section / Paragraph: Section 4.3

Answer:

No, not being included in the proposed solution, as a teaming partner and/or subcontractor, would not exclude an entity from being proposed and potentially "added" after award.

85. What are the exact requirements for small business awards of work? How is a small business defined? If a Category 1 or 2 offeror subcontracts work to a small business, does that satisfy the small business requirements?

Document Reference: Special Notice Page 0 Section / Paragraph: Section 4.3

Answer:

The requirement will be in accordance with FAR Subpart 19.7, with respect to small business subcontracting goals identified as they relate to the Department of Commerce's (DoC) overall total acquisitions. These are the overall goals for all acquisitions awarded for/by DoC for the current fiscal year and are not intended to be goals for a subsequent award only. The proposed plan would have to: (i) identify a statement of the total dollars planned to be subcontracted and a statement of the total dollars planned to be subcontracted to small business within the various socio-economic areas; (ii) describe the efforts the offeror will make to ensure that small business concerns have an equitable opportunity to compete for subcontracts; and (iii) describe potential for further subcontracting opportunities with small businesses. The small business size standard defines the largest that a business concern, including all of its affiliates, may be and yet qualify as a small business concern for federal programs. For the size standard applicable to the NPSBN acquisition, the North American Industry Classification System (NAICS) code will be included in the subsequent RFP.

86. Section 4.1.1 states "FirstNet seeks comments on all aspects of the acquisition strategy/approaches described in this notice, including feedback concerning FirstNet's proposed pricing concepts and operational architecture principles. Comments shall be submitted via email on or before, but no later than 12:00 p.m. Eastern Time on Monday July 27, 2015, utilizing the attached form." Please confirm this is a separate requirement than the 50-page Capabilities Statements. Also, the "attached form" for submitting the comments requested does not appear on FBO. Please clarify this requirement and provide the Form referenced on FBO.

Document Reference: Special Notice Page 3 Section / Paragraph: Section 4.1.1

Answer:

Yes, the submission of comments is a separate submission from the 50-page limited Capabilities Statements. The form to be utilized for submission of comments is the "Q & A Template" on FBO.

87. Will FirstNet allow hand delivery of the 2 hard copies and 1 CD of the Capabilities Statements response on or before the 12:00pm ET July 27, 2014 due date?

Document Reference: Special Notice Page 4 Section / Paragraph: Section 4.1.4

Answer:

Yes, hand delivered submissions are permissible at the address identified in the Special Notice in Section 4.1.4, Capabilities Statements Response Due Date. However, please be advised this location is a secured facility. Therefore, if any submissions are hand delivered, please instruct the guard to contact the Contracting Officer, Terrie Callahan, or Randy Artz, for pick up.

88. When will drafts of Appendix C-2, Service Level Agreement for Radio Access Network (RAN) Integration, and Appendix C-10, FirstNet Cyber Hardness Requirements, be published?

Document Reference: C - SOO Page 7

Answer:

SOO Appendix C-2, Service Level Agreement for Radio Access Network (RAN) Integration, may be provided at a later date or in a subsequent RFP. However, FirstNet is looking for feedback on the obligations necessary to achieve seamless operation of the network if a state chooses to take responsibility for building, maintaining, operating its own RAN. FirstNet expects to release SOO Appendix C-10, FirstNet Cyber Hardness Requirements, in a subsequent RFP.

89. Section L and M were not included in the Special Notice. When does the Government expect to publish a draft of Section L and M?

Document Reference: General

Answer:

FirstNet anticipates issuing Sections L and M in the subsequent RFP. Once the RFP has been released, FirstNet will ensure sufficient time for any questions with regards to all sections of the RFP, including any evaluation criteria and/or instructions for the NPSBN acquisition.

90. With respect to 9-1-1 Services, FirstNet makes reference to "the public" (e.g., A.7.2.5.2.1.1. – Text to 911 Service Management). We assume that "the public" in this context refers to Secondary Use (i.e., commercial) use of the NPSBN under a CLA. If that assumption is incorrect, what is the intended scope of this functional description?

Document Reference: C-7 Operational Architecture Page 80

Answer:

The scope of "the public" includes all Band 14 users within the NPSBN coverage area. This can include secondary users under a Covered Leasing Agreement (CLA) as well as public safety users who may be first or secondary responders.

91. Section 4.4.6.3 of the Interoperability Board Report states that NG911 is "not completely defined" and that " FN "must ensure that its network interoperates and interconnects with NG 911 systems to meet the expectations of consumers." Accordingly, when or where in the Target Timeline does FirstNet intend for the LTE Console as set forth in NPSTC's Public Safety Broadband Console Requirements to be integrated into the NPSBN?

Document Reference: C-8 IOC / FOC Page 0

Answer:

FirstNet is seeking input on the time required to implement the console. FirstNet requests that your feedback include an understanding of console integration and the timing dependencies on 3GPP standards work, vendor certification of the product, vendor general availability of the product and the implementation timing of the console into a live environment.

92. Section 4.4.6.3 of the Interoperability Board Report states that "[c]onsumers rightly and reasonably expect to be able to send data (pictures, video, and text messages) to 9-1-1 call centers." Does FN expect the NPSBN to natively provide this functionality; to rely on the ESInet to provide this functionality or both?

Document Reference: C-8 IOC / FOC Page 0

Answer:

FirstNet has not determined the implementation mechanism of NG 9-1-1 services. FirstNet's assumption is that design and implementation of services such a NG 9-1-1 will be determined as part of an offeror's solution proposed to FirstNet.

93. Are there likely to be specific requirements for Cyber Security related protections and monitoring for the connections between FirstNet and State & Local Agencies? Is there an intention that there will be traffic shaping and separation of agency data and commercial traffic of the CLA provider (i.e., private APN, encryption)?

Document Reference: C - SOO Page 4 Section / Paragraph: C-5-9, Cyber Security

Answer:

FirstNet's objective 10, Priority Services, seeks QoS and priority and preemption. FirstNet is seeking feedback on how to implement the framework that would support QoS and higher priority and preemption over commercial services. Appendix C-10, FirstNet Cyber Hardness Requirements, have been not been included in the Special Notice, as these documents are still being developed in consultation with states, tribes, territories, public safety stakeholders, and market participants, and will be included in the subsequent RFP.

94. The term "FEDERATION" in the term "Federation of ICAM" may have specific implications to implementation. Can FirstNet clarify the proposed ICAM approaches that are acceptable?

Document Reference: C-4 SV-1 and StdV-1 Page 10 Section / Paragraph: SV-1, 4.2.7, Federated Identity Management

Answer:

FirstNet has not committed itself to any specific standard and is actively investigating emerging ICAM standards. FirstNet is open to proposed implementation solutions from offerors for identity management that enable the federation of user identities and credentials from across the full range of public safety entities.

95. Does FirstNet anticipate taking a position on a possible FCC mandate that public safety agencies eventually move off their LMR frequencies under a published schedule.

Document Reference: C-8 IOC / FOC Section / Paragraph: Timeline chart

Answer:

Currently FirstNet does not anticipate taking a position on this FCC issue.

96. 47 U.S.C. 1422(b)(2)) RAN...shall be developed...taking into account plans developed in the...planning...program (Section 6302(a).

Given the State opt out option, any proposal to FirstNet is really a proposal to the states. Will FirstNet share the unedited feedback gained from State and Tribal consultations so that a bidder might be aligned with those 'customer' interests?

Document Reference: General

Answer:

FirstNet is still in the process of determining the best acquisition approach and strategy taking into consideration the potential for States to opt out and assume RAN responsibilities. This includes any determination regarding the extent to which and process for how any feedback received by FirstNet from the States or tribes may be "shared" with potential offerors and/or potential awardee(s). FirstNet may include information addressing this issue in the subsequent RFP as appropriate.

97. How will FirstNet assess compliance with coverage requirements if a bidder meets coverage and building penetration with a mobile (not fixed) solution where public safety vehicles are equipped with eNodeBs with Band 14 access points?

Document Reference: C-3 FCC Tab Section / Paragraph: 4.06.02

Answer:

The Statement of Objectives (SOO) Appendix C-1, Baseline Coverage Objective Maps, contains maps that define the minimum persistent coverage areas and areas where deployables may be appropriate. The subsequent RFP will define FirstNet's criteria for how an offeror's proposed solutions may be evaluated for persistent and deployable requirements.

98. What are the specific interfaces by FirstNet? Are these different from standard 3GPP defined interfaces? We need to be specific and make it clear early in the process to eliminate any confusion.

Document Reference: C-3 FCC Tab Page 10 Section / Paragraph: section 1.3.3 part [20]:

Answer:

Please see the following SOO Appendices: Appendix C-3, Recommended Technical Minimum Requirements to Ensure Nationwide Interoperability for the Nationwide Public Safety Broadband Network; Appendix C-4, System and Standard Views (SV-1 and StdV-1), and Appendix C-5, FirstNet FOC – Features Standards Forecast (StdV-2) with regard to interfaces.

99. What are the FirstNet performance testing for individual interfaces they referred to? Are these specific industry standard tests or FirstNet has its own procedures? Need the details.

Document Reference: C-3 FCC Tab Page 13 Section / Paragraph: section 1.4.3 part [17]:

Answer:

Please see SOO Appendix C-3, Recommended Technical Minimum Requirements to Ensure Nationwide Interoperability for the Nationwide Public Safety Broadband Network, Section 1.4.3 ((17).) The

performance testing will leverage the industry standard tests. Additionally, please refer to SOO Appendix C-6, Quality Assurance Surveillance Plan (QASP), Section 4, for details on required KPI reports. FirstNet intends to provide additional metrics in the subsequent RFP as well as any additional information that may pertain to performance testing.

100. Methodology and Assumptions: FirstNet specifically considering 3GPP Release 9 as the standard for initial deployment. Considering available product and road map for different vendors there is no specific date for Release 9 product availability. Is FirstNet considering Release 8 as a viable solution?

Document Reference: C-3 FCC Tab Page 24 Section / Paragraph: section 3.3

Answer:

Third Generation Partnership Program (3GPP) Release 9 or a future release is required. FirstNet's requirements are governed, in part, by the FCC's recommendations set forth in SOO Appendix C-3, Recommended Technical Minimum Requirements to Ensure Nationwide Interoperability for the Nationwide Public Safety Broadband Network, Section 1.3, which states "In all cases where these recommendations reference specific 3GPP standards (e.g. 3GPP TS 36.101), the intended meaning is that the standard to be applied is contained in Release 9 of the 3GPP standards, or the future evolved equivalent of that standard that applies to future releases."

101. Does the FN program and platform design envision dedicated Network Security Operations Centers (NSOC) and operations to support uniform and compliant security for all FN Networks and Data over the network?

Document Reference: General Page 1

Answer:

Security requirements will be defined in SOO Appendix C-10, Cyber Hardness Requirements.

102. We believe that a systems integrator would ensure maximized network availability for the broadest variety of devices and provide a public safety advantage through technology neutral device certification on any network. Is this the desired end-state for FirstNet?

Document Reference: Special Notice Page 4 Section / Paragraph: 4.1.3.2

Answer:

FirstNet seeks feedback on its proposed acquisition approach and welcomes recommendations discussing the advantages and disadvantages of alternatives as well as submission of a capabilities

statement, demonstrating the capability with regard to the alternative approach, as stated in the Special Notice.

103. Currently, the existing list of functions does not address the need to ensure that all functions work together towards an increased public safety mission value. Would FirstNet consider adding a 10th high level function called "Mission Interoperability" for this purpose?

Document Reference: Special Notice Page 5 Section / Paragraph: 4.2/1

Answer:

FirstNet seeks feedback on the approach indicated in the Special Notice and welcomes recommendations discussing the advantages and disadvantages of alternatives.

104. We believe that the concepts and interfaces outlined in Appendices C-4 and C-5 should apply regardless of whether or not an offeror proposes Category 1 or another acquisition approach. Does FirstNet concur?

Document Reference: Special Notice Page 6 Section / Paragraph: 4.4/1

Answer:

Yes, Appendices C-4 and C-5 apply to all segments of the network for opt-in states and opt-out states under both Category One and Category Two solutions.

105. The FirstNet Terms of Reference do not provide a definition for the word 'provider(s)' although it is used several time throughout section C7. Can FirstNet provide clarification as to whether or not 'provider(s)' is referencing a prime contractor(s) or some other entity?

Document Reference: C-7 Operational Architecture Page 1 Section / Paragraph: A.1/2

Answer:

Throughout the documents, the terms "provider", "offeror", "vendor", or "contractor" can be assumed to mean the entity proposing a solution to FirstNet in response to a request for proposal, unless otherwise indicated.

106. We are concerned that some offerors may view the language of Section 5.2 as an expanded definition of a "commercial item". If the government procures an item as COTS and becomes dependent on an item lacking robust commercial sales, the government could be forced to invest in maintaining the availability of the item without the protection of other mechanisms found in the FAR. FAR 2.101 contains a robust, proven definition of the term "Commercial item". DRFP Section 5.2 Sentence 5 states "The following items may also meet the commercial items definition:" and goes on to list seven attributes not included in FAR 2.101. To ensure readily available items at commercial prices, would FirstNet consider sentence 5 from Section 5.2?

Document Reference: Special Notice Page 9 Section / Paragraph: 5.2 / 4

Answer:

The bulleted list of seven categories of commercial items found in Section 5.2 are simply restatements from the definition of "commercial item" found in Federal Acquisition Regulations (FAR) 2.101. The government will determine whether the services it will acquire are a "commercial item" in compliance with the FAR. As noted in section 5.2 of the Special Notice, the government seeks input from respondents on whether they consider the services described in the Special Notice and draft RFP documents, to be a "commercial item".

107. Based on the magnitude and complex nature of this FirstNet effort, we have assumed that any small business subcontracting plans required in the final RFP will have goals based as a percentage of subcontracted value. Can FirstNet confirm this assumption?

Document Reference: Special Notice Page 1 Section / Paragraph: 2/2

Answer:

Yes, a small business subcontracting plan will be required as part of the submission for the subsequent RFP, in accordance with FAR Subpart 19.7, for large businesses. The small business subcontracting goals identified relate to the Department of Commerce's (DoC) overall total acquisitions. These are the overall goals for all acquisitions awarded for/by DoC for the current fiscal year and are not intended to be goals for a subsequent award only.

108. In order to support the most innovative solutions and maximize affordability, industry will likely seek contractual protections to minimize unforeseen liability issues from third parties that result from potential NPSBN outages. What guidance will FirstNet provide regarding its expectations in this regard?

Document Reference: Special Notice Page 2 Section / Paragraph: 3/1

Answer:

FirstNet anticipates that potential offerors will develop a robust business case that would include mitigation of potential liabilities. Also, the subsequent RFP will contain clauses and/or provision with respect to any terms and conditions pertaining to indemnification which may arise out of, relate to, or result from any act and/or omission concerning any third party part of FirstNet's NPSBN.

109. What contract vehicle(s) does FirstNet anticipate for the design, build, deployment and operations of the NPSBN? Will FirstNet contract separately to collect revenues from excess network capacity and user fees using a covered leasing agreement with one more offerors?

Document Reference: Special Notice Page 9 Section / Paragraph: 5.2 /1

Answer:

Based on market research to date, the determination has been made that there is not an existing vehicle (i.e. GSA Federal Supply Schedule Contract, Government-wide Acquisition Contracts and/or Multi-Agency Contracts) that will satisfy all of the objectives pertaining to the NPSBN acquisition. Additionally, with regard to this matter, the process required in accordance with the Office of Management and Budget memorandum dated September 29, 2011, for "Development, Review and Approval of Business Cases for Certain Interagency and Agency-Specific Acquisitions", will be followed and posted accordingly.

The Special Notice presented FirstNet's conceptual model for becoming financially sustainable. In addition to up to $6.5 billion in allocated Government funding, the contractor(s) could receive revenue from public safety user fees as well as any revenue obtained from using excess network capacity to provide service to non-public safety users, depending on whether the offeror proposed under Category One or Category Two. In exchange, FirstNet requests that offerors propose solutions to meet FirstNet's stated objectives and fixed payments to FirstNet to support ongoing program costs.

110. It would be more beneficial, given the uncertainties of where technology will be in 10 years, to have a large integrator that has the ability to design, build, operate and maintain any type of technological infrastructure for FirstNet. An integrator will provide an evolutionary delivery of capability, and an unbiased approach to determining capability to deploy to the first responder community. An integrator/broker will leverage the best capability available regardless from which company it comes. An integrator/broker will ensure that these technology solutions are competed throughout the lifecycle of the program. FirstNet will not be locked into limited options or consistent rate increases for older technology year and year as they would if a single large telecommunication company led the effort.

Ultimately, we believe that a single carrier will not bring the full array of offerings in as a fully integrated solution without having a business bias towards its own offerings first.

Would FirstNet consider publishing an updated acquisition approach that reflects an integrator/broker model versus a large telecommunication carrier?

We recommend that the government make it clear which model it prefers as these two approaches are distinctly different.

Document Reference: Special Notice Page 5 Section / Paragraph: 4.3 /1

(Part B -- Part A is Q148)

Answer:

The purpose of the Special Notice is to obtain feedback in order to better understand industry's capabilities, analyze the recommendations and alternative approaches, and determine how to best leverage existing capabilities and best practices in order to meet public safety needs. Therefore, if, from a potential offeror's perspective, a system integrator approach should be considered as a viable solution, information and/or a capabilities statement should be provided demonstrating the "conceptual" approach relating to an integrator/broker model. FirstNet is seeking feedback and information, to include capabilities statements, in order to make a determination regarding the best acquisition approach.

111. FirstNet's statutory obligation to achieve financial sustainability, while simultaneously expediting the delivery of a nationwide public safety broadband network are both critically important but may not be best enabled by a single nationwide entity or a regional consortium. Even if a state were identified as deciding to opt-in to FirstNet at or around the time of a contract award, there would still be a need to refine the unique requirements of public safety on a state or regional basis. This decision would also need to be aligned with an offeror(s) proposed solutions to enable a sustainable financial and network solution. An ideal offeror must consider how best to maximize the value of FirstNet's excess capacity through one or more Covered Lease Agreements (CLAs), while also meeting the needs of public safety with world-class network solutions in parallel. Prematurely entering into nationwide CLA agreements could negatively impact alternative public-private partnerships at the regional or state level that may have more valuable socio-economic advantages for a state. In an effort to ensure that parallel nationwide, regional and state partnerships will always be mutually exclusive, complimentary and result in maximized public safety value, would FirstNet consider refining the SOO #14 description to include the concept of an 'independent, technology neutral systems integrator', who would be accountable for de-conflicting these potential challenges throughout the program lifecycle?

Document Reference: C - SOO Page 5 Section / Paragraph: C.5 /14

Answer:

The purpose of the Special Notice is to obtain feedback in order to better understand industry's capabilities, analyze the recommendations and alternative approaches, and determine how to best leverage existing capabilities and best practices in order to meet public safety needs. Therefore, if, in a potential offeror's perspective, a system integrator approach should be considered as a viable solution, information and/or a capabilities statement should be provided demonstrating the "conceptual" approach relating to an "independent, technology neutral systems integrator" model. FirstNet is seeking feedback and information, to include capabilities statements, in order to make a determination regarding the best acquisition approach.

112. A phased deployment plan is a wise one when building a new program from scratch. When there is no comparable effort, we recommend that the government maximize user feedback and maximize the opportunities for lessons learned after portions of the program have been deployed. A single nationwide deployment could be viewed as non-successful if one of any of these factors become issues; Surpassing the estimated expenses; users are not getting the service and capability needed; technical difficulties negatively impacting the public safety mission; delay in schedule, or a breech in security. To minimize these potential issues, we recommend that FirstNet consider a phased deployment schedule focusing on several large regions initially, while simultaneously building nationwide solution components. This would allow FirstNet to obtain and incorporate user feedback, to incorporate lessons learned, work out any technical difficulties or collaborative difficulties in the deployment, and address updated cost and technology offerings. Would FirstNet consider updating the current deployment plan to reflect a phased deployment schedule?

Document Reference: C-8 IOC / FOC Page 4 Section / Paragraph: Target Timeline / 1 /

Answer:

FirstNet seeks feedback on its proposed acquisition approach and welcomes recommendations discussing the advantages and disadvantages of alternatives as well as submission of a capabilities statement, demonstrating the capability with regard to the alternative approach, as stated in the Special Notice.

113. Interference Hunting and Interference Monitoring: The spectrum can be interfered any time by accident or to harm the network especially during major events. Will the functions require remote spectrum monitoring, remote spectrum and appropriate teams to mitigate the external interference?

Document Reference: C-7 Operational Architecture Section / Paragraph: A.1.3.2 , A.1.13.3, A.3.8.2.3.6

Answer:

The NPSBN must be resilient to adverse planned or unplanned network outages including external interference. This may require the use of various troubleshooting teams to repair any outages as well as complementary network services to maintain service continuity. FirstNet expects that an offeror's proposed solution would address the possibility for interference as noted in the Operations (A.3.8.2.3) section of SOO Appendix C-7, Operational Architecture Functional Descriptions. FirstNet is seeking feedback on the Operational Architecture. Additionally, proposed solutions should consider the possibilities with regard to monitoring in order to ensure service continuity and any required resolution in the event of an interference.

114. The installation of Network Elements and the operation of the network are covered in separate functions. Which function addresses integration and Acceptance Testing of new base stations prior to handing over a new base station to Operation? Usually there are strict KPIs to be met before operations includes new base stations in every day life.

Document Reference: C-7 Operational Architecture Section / Paragraph: A.3.2; A.3.8.2

Answer:

The functions are currently outlined in Section A.3.8.2.4.5 of SOO Appendix C-7, Operational Architecture Functional Descriptions, with additional information in the forthcoming "Test Strategy" document to be released in the subsequent RFP. Through the Special Notice, FirstNet seeks feedback and comments, and this type of information is welcome.

115. What contract type (s) is the Government considering? Within the managed services construct, will there be a mix of contract types allowed for in the CLIN structure?

Document Reference: General

Answer:

No decision and/or determination regarding contract type(s) has been made yet. The purpose of the Special Notice is to obtain feedback in order to better understand industry's capabilities, analyze the recommendations and alternative approaches, and determine how to best leverage existing capabilities and best practices in order to meet public safety needs. This includes a determination with regard to the pricing concepts identified as it relates to either Category One or Category Two, and/or any other viable approaches. Therefore, FirstNet is interested in feedback with regard to any CLIN structure as it relates to the information contained in the Special Notice and/or other industry best practices as it correlates to the NPSBN acquisition and potential strategy.

116. We understand from your response at Industry Day, that the subsequent RFP will define the small business subcontracting goals and objectives. Will there be any exclusion for Telecom providers or other subcontractor types?

Document Reference: Special Notice Page 3 Section / Paragraph: 4.1.2

Answer:

A small business subcontracting plan will be required as part of the submission for the subsequent RFP, in accordance with FAR Subpart 19.7. The small business subcontracting goals identified relate to the Department of Commerce's (DoC) overall total acquisitions. These are the overall goals, for all acquisitions awarded for/by DoC for the current fiscal year and are not intended to be goals for a

subsequent award only. The small business subcontracting goals are not tied to "subcontractor type" from the perspective identified within this question, i.e. telecom provider.

117. Has an Organizational Conflict of Interest guidance been established for contractors? If so, can it be shared now?

Document Reference: Special Notice Page 3 Section / Paragraph: 4.1.2

Answer:

The subsequent RFP will contain terms and conditions as it relates to "guidance" regarding organizational conflict of interest. An example of such guidance follows:

"The Contractor warrants that, to the best of its knowledge and belief, it does not have any organizational conflict of interest as defined below.

The term "organizational conflict of interest" means a situation where a Contractor has interests, either due to its other activities or its relationships with FirstNet, which place it in a position that may be unsatisfactory or unfavorable from the Government's standpoint in being able to secure an impartial, technically sound, objective review and recommendations.

The Contractor agrees that if it discovers an organizational conflict of interest with respect to this solicitation and/or resultant contract, the Contractor shall make an immediate and full disclosure in writing to the Contracting Officer that shall include a description of the action that the Contractor has taken or proposes to take to avoid, eliminate or neutralize the conflict. After award, FirstNet may, however, terminate this contract for the convenience of the Government if termination is in the best interest of the Government.

If the Contractor was aware of an organizational conflict of interest before award and intentionally did not disclose the conflict to the Contracting Officer, FirstNet may terminate this award at no cost to the Government."

118. In this paragraph, when FirstNet refers to a demonstration of capabilities, is what is being referenced a physical, formal demonstration, and if so, through what mechanism will these demonstrations be arranged?

Document Reference: Special Notice Page 4 Section / Paragraph: 4.1.3.2

Answer:

At this stage, capabilities should be demonstrated, and outlined in the Capabilities Statements, by noting current product offerings and past performance in written form. Actual product demonstrations may or may not be required as part of the response to the subsequent RFP.

119. In Category 2 approach, where does the one common National core network come from and who has ownership and responsibility for it?

Document Reference: Special Notice Page 6 Section / Paragraph: Section 4.3/ Figure 1

Answer:

The Special Notice provides for a Category One awardee as the provider of all aspects of the network including the nationwide Core with the exception of any regional/statewide RAN solution(s) awarded to Category Two offerors.

120. How will FirstNet acquire the Nationwide Core Network outside of a Category 1 award? What about a scenario where there are no acceptable Category 1 proposals?

Document Reference: Special Notice Page 6 Section / Paragraph: Section 4.3 (2)

Answer:

The purpose of the Special Notice is to obtain feedback in order to better understand industry's capabilities, analyze the recommendations and alternative approaches, and determine how to best leverage existing capabilities and best practices in order to meet public safety needs. Based on market research, FirstNet anticipates multiple Category One proposals.

121. The NSPBN has mission critical requirements above standard commercial services. As long as the offeror is meeting FirstNet's subscribership requirements, will FirstNet eliminate the "Most Favored Pricing Requirement"?

Document Reference: Special Notice Page 7 Section / Paragraph: Section 4.5.1

Answer:

FirstNet desires the most cost effective, best value solution in order to achieve the "nationwide" objectives in order to meet public safety needs throughout the life of any subsequent contract. The purpose of the "Most Favored Pricing Requirement" is to ensure the public safety subscribers are being offered the best possible pricing for the services being provided.

122. How will the QASP be amended or be implemented in conjunction with SLAs?

Document Reference: Special Notice Page 7 Section / Paragraph: paragraph 4.6

Answer:

Quality Assurance Surveillance Plans (QASPs) lay out the methods and metrics by which the government may assess and monitor contractor performance and determine whether the supplies or services provided by the contractor conform to contract performance requirements. QASPs specify the work

requiring surveillance and the method of surveillance, while Service Level Agreements (SLAs) identify the process and requirements, in accordance with the Act, with regard to the states that may opt-out.

123. Reference the comment in the second paragraph, "Coverage is defined as having a minimum of 768 Kbps downlink and 256 Kbps uplink at the cell edge with 50% loading" and Table 1 Coverage. Does it account for the growth of bandwidth hogging applications, such as video in the future?

Document Reference: C-1 Coverage Objective Maps Page 1

Answer:

Coverage requirements are based on FirstNet's FOC projections. The coverage objective noted in the question above is independent of the applications in use. As outlined in SOO Objective 8 regarding service capacity, user demand is expected to increase over time and offerors should propose a solution to meet or exceed this demand as it grows in the future.

124. Other than Capacity requirements, will additional KPIs related to Availability, Accessibility, Retainability, Integrity, Mobility, and Usage be provided for Design (and operational purposes)?

Document Reference: C-1 Coverage Objective Maps Page 4 Section / Paragraph: 4

Answer:

The complete QASP (Quality Assurance Surveillance Plan) will include a broad set of metrics that demonstrate the performance of both the network and FirstNet as a service to the public safety community. The QASP, in the draft that was released, was limited to a representative set of functions. The offeror may be required to include a QCP (Quality Control Plan) that addresses the metrics in the QASP, as part of its offer. Any requirements for submission of the plan will be identified in a subsequent RFP. Moreover, FirstNet seeks feedback and welcomes recommendations discussing any advantages and disadvantages with regard to metrics.

125. Since the FIRSTNET core IP network that connects the national and regional EPCs considered a National Mission Critical Infrastructure, does its architecture require a private MPLS core backbone providing low latency and high availability and reliability similar to other existing national networks?

Document Reference: C-3 FCC Tab Page 31 Section / Paragraph: 4.1.5.7

Answer:

The FirstNet NPSBN Core backbone network provides connectivity among the EPC network elements in the national and regional data centers, packet routing equipment and the radio access network. The

Core backbone network also provides connectivity to the public Internet, Public Switch Telephone Network, Public Safety Enterprise Networks, and possibly other commercial networks. The Core backbone network must provide low latency, high availability, and reliability. FirstNet does not restrict the offeror to provide a Core backbone network to be private or shared, as long as the proposed solutions demonstrates the objectives are met.

126. This GoS (Grade of Service) requirement appears to be for the radio coverage only, whereas the availability of user services also involves the reliability of the backhaul and processing services. Will the final requirement also include the reliability of backhaul and processing services as a component of overall availability in GoS Tiers?

Document Reference: C-3 FCC Tab Page 71 Section / Paragraph: 4.6.2

Answer:

No, it is not FirstNet's intent, at this time, to redefine GoS at the Tier level.

127. The text at the bottom of page three says that the section covers "opt-in," but section 2.1 appears to be entirely about "opt-out," and section 2.2 appears to be about both. It seems that "opt-out" should require business systems and management interfaces not required in "opt-in." Are the two interfaces the same? Please clarify text appropriately.

There is no corresponding figure for State Opt-In. Is the Opt-In interface the same (as implied by Figure 1) or different? If different, should it have a distinct designation in Figure 1? If the same, titling of the figure and section should be modified for clarity.

Document Reference: C-4 SV-1 and StdV-1 Page 2 Section / Paragraph: 2

Answer:

The interfaces between the Core and the RAN are the same for both an opt-in state and a state that chooses to take responsibility to build, operate and maintain a RAN network. The language will be updated in a subsequent RFP.

128. Table 1 refers to several interfaces that do not appear in Figure 2, and several interfaces identified in Figure 2 do not appear in Table 1. Please clarify.

Document Reference: C-4 SV-1 and StdV-1 Page 4 Section / Paragraph: 2.2 Table 1

Answer:

FirstNet intends to update SV-1 in the SOO Appendix C-4, System and Standard Views (SV-1 and StdV-1) to align table mapping and figure legends accordingly (Figure 2 and Table 1). The X2, S1-MME/U,

Microwave and Fiber Ethernet currently align correctly. VPN technologies such as E-Line/L2VPN and MPLS-VPN should utilize industry best practices, and FirstNet intends to update the table with language to that effect. In Table 1, FirstNet intends to remove LTE-Uu and Voice Service and replace Performance and Audit Monitoring with SNMPv3 and SFTP and provide appropriate IETF standards references. In Figure 2, FirstNet intends to add S1-U and S1-MME security/encryption, based on 3GPP standards on Network Domain IP security and authentication, to the Security Plane Interface. Additionally, FirstNet intends to add SNMPv3, SFTP, LTE measurement and performance metrics, and Timing Interface to the Management Plane Interface. Finally, FirstNet intends to add Location Services to the Control Plane Interface.

129. It's not clear how an interface would support federated access to local databases by visiting users. This seems to be a requirement on the PSE itself. Please clarify.

Document Reference: C-4 SV-1 and StdV-1 Page 13 Section / Paragraph: 5.2.2 paragraph 1 sentence 3

Answer:

As outlined in the SOO Section C.5, Objective 1, FirstNet is seeking solutions for a nationwide, interoperable network. One aspect of interoperability is the capability for a local PSE administrator to authorize access to authenticated visiting users from agencies providing mutual aid. The parenthetical phrase "under the control of the local administrator" is intended to indicate the PSE administrator will need the ability to control who has access to what. ICAM defines a shared, or federated, "authentication" process, but the PSE administrator retains "authorization" to resources within their control.

130. The requirement is confusing. We believe it means "The Contractor shall provide web interfaces, as noted below, to allow PSE to provision users, manage devices and applications, view billing information and monitor the performance of the local network." Please clarify if this is meant to say provide versus utilize.

Document Reference: C-4 SV-1 and StdV-1 Page 14 Section / Paragraph: 5.2.4 paragraph 1 sentence 1

Answer:

The wording as stated, “The Contractor shall provide web interfaces, as noted below, to allow PSE to provision users, manage devices and applications, view billing information and monitor the performance of the local network.” is correct. However, this may be further clarified in a subsequent update to SOO Appendix C-4, Systems and Standard Views (SV-1 and StdV-1).

131. Clarify the following statement and explain its context as it relates to GCSE.

"IP Multimedia Subsystems (IMS) and OMA-XML Document Management Group services related to presence, voice over LTE (VoLTE) and other radio communications services for group are available at the 3GPP specification."

Document Reference: C-5 StdV-2 Page 4 Section / Paragraph: Section 4, para 3

Answer:

Among the IMS applications, there are services related to Group Communication. The IMS technology enables session management for Public Safety Group Communication. Also, there are use cases for multimedia Group Communication integrated with value-added services through the OMA enablers. The statement addresses the fact that different layers can be involved in supporting Group Communication service for Public Safety.

132. What standards are required for ICAM and at which milestones in the IOC / FOC timeline? Table 4 Identity Management Mandatory Standards states "Some of the evolving standards on ICAM are shown below" and lists 11 different items.

Document Reference: C-5 StdV-2 Page 9 Section / Paragraph: Section 7, Table 4

Answer:

As defined in SOO Appendix C-8, IOC/FOC Target Timeline, FirstNet has defined 3 phases of ICAM functionality roll-out in IOCs 1-3. FirstNet expects an offeror to submit detailed proposed solutions to provide the ICAM functionality in each of these IOC releases that leverage ICAM standards. FirstNet requests feedback regarding the milestones proposed in the Special Notice.

133. The table shows Q-OPS ID to start at ID #4, then #12, #21, #25 & #29. Is this the complete table or are there additional items # 1 to 3, 13 to 20…to be included in the table?

Document Reference: C-6 QASP Page 0 Section / Paragraph: Table 5, Q-OPS

Answer:

The table, as referenced, is the complete table that was released and contains representative performance metrics/standards for each of the technical areas identified.

134. Will the # objectives provided in the final RFP be the final list of objectives in the awarded contract?

Document Reference: C-6 QASP Page 0 Section / Paragraph: Table 5, Q-OPS

Answer:

FirstNet has currently identified all of the objectives for the NPSBN acquisition. However, feedback will be considered with respect to the current objectives identified as well as any input as a result of ongoing outreach and consultation. If the determination is made to make any changes after issuance of the RFP, prior to award, an official amendment will be issued. While the awarded contract will be reflective of the objectives found in the SOO, the SOO will not become part of a contract. The SOO will be replaced by a performance work statement at the time of award as a result of the proposed solution, as negotiated if necessary.

135. Does 99.99% availability apply to the entire ecosystem to include third party service providers (i.e. for redundant links to data centers)? Does this apply to availability of the best effort OTP applications?

Document Reference: C-6 QASP Page 0 Section / Paragraph: Table 7

Answer:

FirstNet's objectives for availability are covered in the overall system availability objective outlined in SOO Section C.5.7, User Service Availability. The 99.9% referenced in the SOO is correct; the 99.99% referenced in SOO Appendix C-6 is incorrect and will be updated to be consistent with the 99.9% SOO reference. As noted, this availability objective includes the reliability effects of all network components (e.g., Core, gateways, eNodeBs, and backhaul) as well as the environmental survivability of the infrastructure and the benefits derived from deployable units. Also, as noted, network services have been included in the definition.

136. Will guidelines for installation standards and codes be provided from FirstNet or will this be left up to responder discretion?

Document Reference: C-7 Operational Architecture Page 24 Section / Paragraph: A3.2.1

Answer:

FirstNet expects offerors to provide information with regard to installation standards that they plan to follow as part of their capabilities statement and subsequent responses to the RFP.

137. Will any additional information be provided for Multimedia and Hi-definition requirements for the device ecosystem, to include machine based sensors?

Document Reference: C-7 Operational Architecture Page 75 Section / Paragraph: A7.2.3.1

Answer:

Specific requirements will be one of the outputs of the offeror's proposed solution with regard to the product management process that would be incorporated into the subsequent award.

138. What is the size/ number of devices that would be considered to make up the system?

Document Reference: C-7 Operational Architecture Page 75 Section / Paragraph: A7.2.3.1

Answer:

FirstNet expects offerors to work with device providers to ensure that a rich and diverse device portfolio is available with devices ranging from those similar to commercially available consumer grade to highly specialized public safety focused devices.

139. The opening sentences for each of the IOC phases 2, 3, 4, and 5 (paragraphs 4.2, 4.3, 4.5, and 5) state that each of these phases start X years after the completion of the prior phase. However, Figure 1 and the table in paragraph 2 imply that all phases are months after award, and FOC language (paragraph 6) also states target completion dates in time after contract award. This would make a difference of several years for when FOC is targeted (60 months versus 126 months). Our interpretation based on Industry Day discussion is that FOC is achieved at the end of Year 5 following contract award. Please clarify.

Document Reference: C-8 IOC / FOC Page 6

Answer:

The information contained in the SOO Appendix C-8, IOC/FOC Target Timeline, Table and Figure 1, IOC/FOC Timeline, is correct, all phases are months after award. The initial sentence in each section stating "this phase will begin x years after the completion of" the previous IOC is incorrect. The information issued in a subsequent RFP will be updated to reflect this correction.

140. Reference is made to "Operations.4, Network Management" use case, which is not in the document. Should this reference be to "Operations.1, Network Management" as identified in Section 4.28 on page 47?

Document Reference: C-9 Use Cases Page 14 Section / Paragraph: 4.8.3

Answer:

Yes, Section 4.8.3 9. of SOO Appendix C-9, Nationwide Public Safety Broadband Network (NPSBN) Use Case Definitions, will be amended so that "Operations.4, Network Management" is replaced with "Operations.1, Network Management" in the subsequent RFP."

141. Please clarify what is meant by an "agency branded B14 device?"

Document Reference: C-9 Use Cases Page 46 Section / Paragraph: 4.25.6

Answer:

SOO Appendix C-9, Nationwide Public Safety Broadband Network (NPSBN) Use Case Definitions, should have stated "FirstNet branded B14 device" rather than "agency branded B14 device". This will be corrected in the subsequent RFP.

142. In the SOO document, Availability is required to be 99.9%. In the QASP table, it is set at 99.99%. Can you please clarify?

Document Reference: C - SOO Page 0 Section / Paragraph: C.5 #7 and C-6, section 6 Table 7

Answer:

As noted in the SOO Section C.5 Objective 7, User Service Availability, the service availability figure "includes the reliability effects of all network components (Core, gateways, eNodeBs, and backhaul) as well as the environmental survivability of the infrastructure and the benefits derived from deployable units."

As of the release of the draft RFP, the SOO reliability figure of 99.9% is correct; based upon comments the government receives, the draft RFP is subject to change.

143. There is adequate qualified businesses to support a FAR Part 15 procurement. Has a decision been made on contract type?

Answer:

A decision and/or determination regarding contract type has not yet been made.

144. You have requested industry consider providing FirstNet with Capabilities Statements. Can you tell us what FirstNet intends to use the capabilities statements for? Is it to simply enquire to determine interested parties and general FirstNet related capabilities available across industry much like a RFI or sources sought notice might achieve, or is it to down select?

Document Reference: Special Notice Page 0 Section / Paragraph: 4.1.3-4

Answer:

The capabilities statements submitted as a result of the Special Notice are not being utilized as a "down select" mechanism at this stage in the NPSBN acquisition process. As stated in the Special Notice, the purpose of the capabilities statements is to obtain feedback in order to better understand industry's

capabilities, analyze the recommendations and alternative approaches, and determine how to best leverage existing capabilities and best practices in order to meet public safety needs. This will also assist in the determination of acquisition strategy and approach in order to enhance competition.

145. In this section you reference Appendix C-10 FirstNet Cyber Hardness Requirements. Do have an anticipated release date for this document?

Document Reference: C-SOO Page 4 Section / Paragraph: C5.9

Answer:

FirstNet does not have an anticipated release date for this document. However, it will be included in the subsequent RFP.

146. In this section you reference Appendix C-2 Service Level Agreement for Radio Access Network (RAN) Integration. Do have an anticipated release date for this document?

Document Reference: C-SOO Page 4 Section / Paragraph: C5.1.1

Answer:

FirstNet does not have an anticipated release date for this document. However, it will be included in the subsequent RFP. Also, FirstNet welcomes comments regarding the appropriate service levels necessary for RAN Integration. FirstNet does not have an anticipated release date for this document. It will be included in the subsequent RFP.

147. In your high level IOC Timeline Chart you show IOC-1 Launch 6 months from award. We did not see in your time line any up front requirements definition development of the Statement of objective and the process to take those requirements definition to a design review process prior to IOC. (ie PDR, CDR, etc). Is it FirstNet's plan to have the contractor build this engineering rigor that allows the government to approve what the contractor proposes to build prior to the contractor actually building? Can this be added into the IOC/FOC schedule?

Document Reference: C-8 IOC / FOC Page 0 Section / Paragraph: Fig 1

Answer:

The purpose of the Special Notice is to obtain feedback in order to better understand industry's capabilities, analyze the recommendations and alternative approaches, and determine how to best leverage existing capabilities and best practices in order to meet public safety needs. Therefore, FirstNet seeks comments on the milestones included in the Special Notice.

148. In figure 1 IOC/FOC timeline it appears each IOC period after IOC-1 is 6 months to get to IOC-2 then 1 year increments for all remaining IOC's. In your stated words describing IOC 2-5 you state IOC-2 is targeted to begin 1 after the completion of IOC-1, IOC-3 is targeted to begin 2 years after the completion of IOC-2, IOC- 4 is targeted to begin 3 years after the completion of IOC-3 and IOC-5 is targeted to begin 5 years after the completion of IOC-4. Is this accurate or should the periods mentioned above be after contract award rather than after completion of the prior IOC?

Document Reference: C-8 IOC / FOC Page 0 Section / Paragraph: Fig 1, 4-5.6 and 6

Answer:

The information contained in the SOO Appendix C-8, IOC/FOC Target Timeline, Table and Figure 1, IOC/FOC Timeline, is correct, all phases are months after award. The initial sentence in each section stating "this phase will begin x years after the completion of" the previous IOC is incorrect. The information issued in a subsequent RFP will be updated to reflect this correction.

149. This document lays out the functional area descriptions and ties back to the spreadsheet and Visio where responsibilities are assigned to Public Safety or FirstNet with areas left open for comments on which party should be responsible for a specific functional area. It is our understanding that FirstNet desires that we assign ownership to all functions that were initially left unassigned from the set (Contractor, FirstNet, Shared, Public Safety, and Out of Scope). It is our further understanding that FirstNet desires comments on those functions that have been provisionally assigned to either FirstNet or Public Safety. Please confirm.

Document Reference: C-7 Operational Architecture Page 0

Answer:

Your understanding is correct, FirstNet is requesting feedback regarding ownership of all functions that were initially left unassigned (Contractor, FirstNet, Shared, Public Safety, and Out of Scope). Also, as stated in the Special Notice, FirstNet is seeking comments on those functions that have been provisionally assigned to either FirstNet or Public Safety.

150. You reference the Core consisting of the Public Safety gateway. Did you mean the P-GW and S-GW.

Document Reference: C-7 Operational Architecture Page 29 Section / Paragraph: A3.4.2.4

Answer:

Yes, the Public Safety gateway referred to in Section A3.4.2.4 of the SOO Appendix C-7, Operational Architecture Functional Descriptions, is made up of P-GW and S-GW EPC entities.

151. Does SDP (Service Delivery Platform) have Local control of PCRF policies and prioritization for users in addition to user control?

Answer:

The SDP is envisioned as an enabling platform that provides abstract interfaces to information and functionality within the network. As such, the SDP does not itself contain any functionality related to the PCRF or user control. FirstNet also envisions a local control system that provides PSEs the ability to manage their users, devices, services, and applications. See SOO Appendix C-9, Use Cases, Section 4.8.3, Table 3, for a detailed definition of local control. This definition includes local management of policies and priorities.

152. "The NPSBN SHALL support IPv4, IPv6, and IPv4/v6 PDN types defined in 3GPP TS 23.401" Will the Government amend the RFP to clarify, which specific methods are preferred or if all methods are required?

Document Reference: C-3 FCC Tab Page 8 Section / Paragraph: 1.3.1.7

Answer:

FirstNet requires that the NPSBN shall support IPv4, IPv6, and IPv4/v6. There are still many IPv4 hosts, network, and services currently deployed and the NPSBN may need to interwork with them. Since IPv4 and IPv6 are not interoperable, both protocols will need to be supported in the NPSBN during the transition period from IPv4 to IPv6.

153. "The NPSBN SHALL support IPv4 and/or IPv6 transport for the EPS interfaces enumerated in Table 1: Minimum Interoperable Interfaces, consistent with the FirstNet design" Assuming this is related to IPv4/IPv4 capable transport." Will the Government amend the RFP to clarify if tunneling and/or NATare required as options?

Document Reference: C-3 FCC Tab Page 8 Section / Paragraph: 1.3.1.8

Answer:

FirstNet requires that the NPSBN shall support IPv4 and IPv6 for the EPS interfaces. FirstNet does not anticipate restricting the mechanisms the offeror(s) would use for the IPv4 to IPv6 transition. Dual IPv4/IPv6 protocol stacks implementation is commonly used for all EPC nodes and routers. FirstNet does not restrict other transition approaches, such as NAT and tunneling.

154. "Prior to operational deployment on the NPSBN, infrastructure equipment SHALL have passed FirstNet required Interoperability Testing at a system level as per the specific IOT requirements for the NPSBN." Will the Government amend the RFP to clarify if there is an anticipated test-plan format that can be reviewed? [Question 168] below cites area of document for external site test-plans only?

Document Reference: C-3 FCC Tab Page 9 Section / Paragraph: 1.3.3.21

Answer:

The test-plan format will be further clarified as part of the subsequent RFP.

155. The equipment comprising the NPSBN SHALL provide backwards compatibility of interfaces, from time of deprecation, for a minimum of two full major release/upgrades of the network. This requirement may be waived (i.e., interface obsolescence accelerated) if FirstNet can ascertain from the user community that there are no dependencies on a given interface." Will the Government amend the RFP to clarify what mechanisms will be used as inter-connection points between NPSBN segments where multiple providers are involved in compliance

Document Reference: C-3 FCC Tab Page 9 Section / Paragraph: 1.3.4.23

Answer:

The mechanisms used are a design deliverable. Offerors should include in their proposed solutions interfaces and protocols between network elements to interconnect the NPSBN with every external network element.

156. "The NPSBN SHALL support the use of mobile VPN technology to support mobility between the NPSBN and other networks". It is assumed this will User Devices (UE) centric. Will the Government amend the RFP to clarify if the other networks are NPSBN defined or does this need to remain open for inclusion of future expansion?

Document Reference: C-3 FCC Tab Page 9 Section / Paragraph: 1.3.5.29

Answer:

A Mobile Virtual Private Network solution ensuring that FirstNet network performance meets the expectations (fast handover, security, QoS, high capacity back-ends, etc.) is essential for a successful NPSBN, especially in scenarios such as outbound roaming on non-NPSBN networks. Also, FirstNet is seeking feedback on all draft RFP documents with regard to these topics in accordance with the Special Notice.

157. "The NPSBN SHALL implement a nationwide scheme for assigning Access Classes to public safety users and secondary users following the 3GPP recommendations in TS 22.011, Section 4.2." Section 4.2 appears to describe a set of nested Access Class options with related QoS parameters. Will the Government amend the RFP to confirm, if priority users can be members of multiple priority access classes and if their application sets can also within these classes require different levels of prioritization?

Document Reference: C-3 FCC Tab Page 10 Section / Paragraph: 1.3.6.35

Answer:

The statement quoted from the Interoperability Board Report found in Appendix C-3 Recommended Minimum Technical Requirements to Ensure Nationwide Interoperability for the Nationwide Public Safety Broadband Network only refers to access class barring users trying to access the network and does not imply any prioritization of a users' applications once on the network.

158. "The NPSBN SHALL support the use of industry standard VPN and MVPN technology, while providing priority and Quality of Service for encapsulated applications. " Per [Question 157] above nested option may require multiple tunnel sequences?

Document Reference: C-3 FCC Tab Page 10 Section / Paragraph: 1.3.6.37

Answer:

The Mobile Virtual Private Network (MVPN) may render different Quality of Service (QoS) levels indistinguishable, which negates the benefits of QoS management. The MVPN Network must promote QoS levels external to the tunnel and make them visible to the LTE network, since the bundled data will be treated by the LTE network as having the same QoS level.

159. "In order to ensure secure and interoperable interfaces between the NPSBN and external elements (e.g. all SGi, Rx and Srvs services as shown in Figure 2), these interfaces SHALL be protected with a FirstNet-approved security mechanism." Will the Government amend the RFP to clarify if there is a preliminary schema describing the FirstNet-approved security mechanisms?

Document Reference: C-3 FCC Tab Page 10 Section / Paragraph: 1.3.7.43

Answer:

Appendix C-10 FirstNet Cyber Hardness Requirements has not been included in the Special Notice as it is still being developed in consultation with states, tribes, territories, public safety stakeholders, and market participants, and will be included in the subsequent RFP.

160. "The NPSBN SHOULD support existing Public Safety applications, deployed regionally or within agencies." Will the Government amend the RFP to clarify if there is a preliminary application set list for review?

Document Reference: C-3 FCC Tab Page 11 Section / Paragraph: 1.4.1.3

Answer:

FirstNet has no plans to include in the RFP a specific set list of existing public safety applications that are to be supported. FirstNet expects that the proposed solutions, provided by the offerors, should support the ability for users to access and use their existing regionally and locally deployed applications as called for in the Interoperability Board Report. Please see SOO Section C.5, Objective 5 Application Ecosystem.

161. "Prior to operational deployment on the NPSBN, infrastructure equipment SHOULD have passed FirstNet required Performance Testing of individual interfaces, nodes and overall system as per the specific performance requirements of the NPSBN". Per [Question 154] above, in a multi-vendor environment, will the Government amend the RFP to clarify if there is a targeted test-plan layout for review?

Document Reference: C-3 FCC Tab Page 12 Section / Paragraph: 1.4.3.17

Answer:

FirstNet anticipates publishing test strategy documentation as part of the subsequent RFP. Through the Special Notice, FirstNet seeks feedback on what test strategy should be considered, in accordance with the Special Notice.

162. "The NPSBN SHOULD be constructed and evolved in adherence to a multi-year roadmap" Will the Government amend the RFP to clarify if the roadmap element will be developed and maintained by the vendors supporting the NPSBN and FirstNet or Vendors only?

Document Reference: C-3 FCC Tab Page 12 Section / Paragraph: 1.4.4.20

Answer:

Roadmap development is outlined in Appendix C-7 Operational Architecture Functional Descriptions in sections A.2.3.3, A.3.3.3, A.3.4.1, A.3.8.2.3.3, A.3.4.1, A.7.1, and A.7.4. FirstNet seeks feedback on all aspects of the Operational Architecture including recommended ownership of each task in accordance with the Special Notice.

163. "A set of default QoS profile templates SHOULD be defined for each responder function (e.g. police, fire, EMS) supported by the NPSBN." Will the Government amend the RFP to clarify if these responder functions will be defined individually or be grouped into a priority access class level?

Document Reference: C-3 FCC Tab Page 13 Section / Paragraph: 1.4.7.37

Answer:

As noted in the question, the Interoperability Board Report found in Appendix C-3 Recommended Minimum Technical Requirements to Ensure Nationwide Interoperability for the Nationwide Public Safety Broadband Network Section 1.4.7 (37) calls for QoS templates for each of the responder functions as a minimum requirement. The next Interoperability Board Report requirement following this one (1.4.7 (38)), specifies that each profile should have default values for several parameters, including Access Class. FirstNet anticipates offeror's proposed solutions will allow flexibility in the definition of QoS profiles for different types of responders in both static and dynamic operational situations.

164. "Since the NPSBN could also support secondary users, default QoS profile templates SHOULD be defined for public safety and secondary users." Per [Question 163] above, QoS policies will need to be developed in a nested fashion for hierarchical treatment of users within each class i.e. public safety and secondary?

Document Reference: C-3 FCC Tab Page 13 Section / Paragraph: 1.4.7.39

Answer:

FirstNet does envision profiles and user assignment to such profiles that support prioritization and QoS. FirstNet may request offerors to propose the techniques and/or methodologies, and implementation details for achieving this requirement.

165. "The NPSBN security implementation SHOULD include pre-planned bypass mechanisms that have defined security and interoperability implications." Will the Government amend the RFP to clarify, if bypass should be interpreted as complete "fail-open" on a per criticality basis?

Document Reference: C-3 FCC Tab Page 13 Section / Paragraph: 1.4.8.43

Answer:

Appendix C-10 FirstNet Cyber Hardness Requirements has not been included in the Special Notice as it is still being developed in consultation with states, tribes, territories, public safety stakeholders, and market participants, and will be included in the subsequent RFP.

166. "The developed security mechanisms SHOULD permit local entities to hide the topologies and address spaces of their networks." Will the Government amend the RFP to clarify if NAT testing will need to validate the impact on the applicaton set? If tunneling, what security parameters are set at endpoints?

Document Reference: C-3 FCC Tab Page 14 Section / Paragraph: 1.4.8.49

Answer:

The NPSBN will provide various security mechanisms to protect the network. These may include encryption, integrity protection, authentication, monitoring, intrusion detection/prevention, and topology and address hiding. If an offeror's proposed solution includes NAT and tunneling, testing of these mechanisms will be required to validate their effectiveness and impact on the network performance. Offerors are encouraged to provide feedback regarding test cases for the security testing as part of any response to the Special Notice via comments, which are due to FirstNet July 27th, 2015.

167. "The agency, organization or entity that utilizes the NPSBN Identity Management framework SHOULD be responsible for enforcing authorization constraints on access to information as per their own security policy. " Will the Government amend the RFP to clarify, if the NPSBN needs to providing logs to responsible entities above in order to compliment enforcement?

Document Reference: C-3 FCC Tab Page 14 Section / Paragraph: 1.4.8.55

Answer:

FirstNet expects major functional capabilities such as Identity Management, the offeror(s) will provide operational metrics, logs, and reports that enable FirstNet's monitoring and oversight, and where appropriate, PSE compliance. FirstNet anticipates including a detailed set of deliverables and data requirements in the subsequent RFP.

168. "Several different organizations such as the Multi Service Forum (www.msforum.org) and the Network Vendors Interoperability Test Forum (www.nviot-forum.org) provide a framework for system level IOT on LTE systems and can be leveraged for use by FirstNet to engage in this type of testing." Can it be assumed that these test-bed examples are a generally applicable sample set of what will be used by FirstNet? Will the Government amend the RFP to clarify this assumption?

Document Reference: C-3 FCC Tab Page 49 Section / Paragraph: 4.3.3.2

Answer:

The system level interoperability tests (IOT) will be further clarified as part of the subsequent RFP.

169. To track the evolution of the network, a roadmap for introducing functions into the network is required. The roadmap should track feature availability from vendors, integration testing across vendors, planned market deployment and general availability across the network. The roadmap is used to show services available to endusers in the near term and is used to show need to vendors for longer term items. An open roadmapping process allows both network users and vendors to understand the current high level plan for the network. A key continuing output of the governance of the network is maintenance of a roadmap." Will the Government amend the RFP to clarify if the Roadmap functionality will be a collaboration between FirstNet and Vendors or Inter-Vendor only?

Document Reference: C-3 FCC Tab Page 53 Section / Paragraph: 4.4.5

Answer:

Roadmap development is outlined in Appendix C-7 Operational Architecture Functional Descriptions in sections A.2.3.3, A.3.3.3, A.3.4.1, A.3.8.2.3.3, A.3.4.1, A.7.1, and A.7.4. FirstNet seeks feedback on all aspects of Appendix C-7 Operational Architecture Functional Descriptions including recommended ownership of each task in accordance with the Special Notice.

170. The equipment in the NPSBN SHOULD support transport redundancy wherever economically feasible (i.e. connections to local switching equipment or WAN connectivity between sites or core locations). It is assumed that full high-availability should be designed into architecture and be eliminated only if cost-prohibitive. Will the Government amend the RFP to clarify the accuracy of the assumption?

Document Reference: C-3 FCC Tab Page 57 Section / Paragraph: 4.4.6.6

Answer:

FirstNet's objectives for system availability are covered in the SOO, Section C.5 Objective 7, User Service Availability. The subsequent RFP may require that offerors propose a solution that meets FirstNet's objectives.

171. Public Safety Entities could benefit greatly from a broker based approach to LTE Services. Will the Government amend the RFP to provide for a broker-based model for Public Safety LTE wireless services?

Document Reference: Special Notice Page 5 Section / Paragraph: 4.3

Answer:

FirstNet seeks feedback on a broker-based model for Public Safety LTE wireless services and encourages recommendations discussing its advantages and disadvantages.

172. Will the government amend the RFP to reflect the assumptions offerors should use in order to provide connectivity options and accurate costs to the opt-out states prior to receiving opt-out approval?

Document Reference: Pricing Appendix Page 5 Section / Paragraph: 2.1

Answer:

The subsequent RFP may require offerors to propose connectivity options based on meeting the traffic demand projections , meeting the stated objectives of the FirstNet system and enabling the opt- out states to connect seamlessly with the FirstNet Core.

173. The FirstNet NPSBN Special Notice describes a future where NextGen 911 systems that integrate with FirstNet support VOIP, text, and emails with attachments, which may range from photos to streaming content. At what level of the infrastructure will this content be inspected to ensure malicious payloads are not transmitted into FirstNet? Will this be national, regional, or local?

Answer:

The level at which packets will be inspected should be addressed and identified in the offerors' proposed solution. Note that all NG911 payloads must enter the network through a Public Safety Answer Point (PSAP) before being sent on to a NPSBN subscriber. The PSAP must ensure the validity of the payload before sending through the NPSBN.

174. Figure 1 shows IOC-2 as 12 months after contract award. Section 4.2 IOC-2 shows this phase as targeted to begin one (1) year after the completion of IOC-1 which is 18 months after contract award. Which representation is correct? This question is the same for IOC-3, IOC-4 and IOC-5. Please clarify timeline for all phases.

Document Reference: C-8 IOC / FOC Page 0 Section / Paragraph: Figure 1

Answer:

The information contained in the SOO, Appendix C-8, IOC/FOC Target Timeline, table and Figure 1, IOC/FOC Timeline, is correct. The initial sentence in each section stating "this phase will begin x years after the completion of" the previous IOC is incorrect. The information issued in a subsequent RFP will be updated to reflect this correction.

175. The sections IOC 2-5 each begin with the sentence…"This phase is targeted to begin X years after the completion of IOC-Y (previous IOC #). To match the timeline shown in the graphic at the beginning of the document it looks as though sentences should be changed to "This phase is targeted to begin X years after award (using the number of years already specified). Correct?

Document Reference: C-8 IOC / FOC

Answer:

The information contained in the SOO, Appendix C-8, IOC/FOC Target Timeline, table and Figure 1, IOC/FOC Timeline, is correct. The initial sentence in each section stating "this phase will begin x years after the completion of" the previous IOC is incorrect. The information issued in a subsequent RFP will be updated to reflect this correction.

176. Where will the FirstNet Lab be located?

Document Reference: C-7 Operational Architecture Page 40 Section / Paragraph: A.3.8.2.1

Answer:

The planned FirstNet lab will be located at FirstNet Technology Headquarters in Boulder, CO.

177. How does FirstNet propose to provide roaming support / inter-carrier transfer between Band 14 covered (FirstNet service providers) and non-FirstNet areas?

Answer:

This is an objectives-based RFP. Therefore, FirstNet seeks feedback on the optimal operational architecture in accordance with the Special Notice.

178. How will continuity of Band 14 service be identified and addressed during roaming?

Answer:

This is an objectives-based RFP. Therefore, FirstNet seeks feedback on the optimal operational architecture in accordance with the Special Notice.

179. How will users be advised / notified they are leaving a FirstNet/Band 14 service area?

Answer:

This is an objectives-based RFP. Therefore, FirstNet seeks feedback on the optimal operational architecture in accordance with the Special Notice.

180. How will FirstNet subscribers administer their service requests on a local basis?

Answer:

Appendix C-7 Operational Architecture Functional Descriptions, included in the draft RFP documents, defines tasks that must be accomplished in order to make the NPSBN operational, and it defines who has ownership of each individual task. FirstNet has defined responsibility for a small number of these but is soliciting feedback as to the most efficient way to allocate responsibility and define processes associated with administering local service requests. FirstNet anticipates that local agencies will request access to systems to allow user provisioning.

181. Does NPSBN replace Wireless Priority Service (WPS)?

Answer:

FirstNet will provide priority access for Public Safety Users on the NPSBN. Any impact to WPS usage is unknown.

182. Will network trouble tickets be managed by FirstNet or by the bidder?

Answer:

As this is an objectives-based RFP, FirstNet seeks feedback on the optimal operational architecture in accordance with the Special Notice.

183. Who will own a network trouble ticket that arrives from a state level network command center?

Answer:

As this is an objectives-based RFP, FirstNet seeks feedback on the optimal operational architecture in accordance with the Special Notice.

184. Is the trouble ticket owner responsible to close the ticket and share its closure with the state network command center?

Answer:

As this is an objectives-based RFP, FirstNet seeks feedback on the optimal operational architecture in accordance with the Special Notice.

185. Will the FirstNet Core file server be continuously updated by the bidder?

Answer:

The question is assumed to refer to the Home Subscriber Server (HSS) within the Evolved Packet Core (EPC) of an LTE system. There will be one, national EPC, that may be distributed geographically for reliability and resiliency, which will serve the RAN(s) collectively. The HSS stores subscription and provisioning related information to support other call control and session management entities, and it will be continually updated through the provisioning and subscriber management processes.

186. How will FirstNet manage coverage and feature changes once the NPSBN is deployed?

Answer:

FirstNet seeks feedback on the optimal operational architecture in accordance with the Special Notice. FirstNet anticipates that during the operational lifecycle phase of the NPSBN, changes and enhancements may be addressed in a systems engineering lifecycle type and approach and documented. Additional information pertaining to this document will be provided in the subsequent RFP.

187. How will the State Level Command Center interface with the bidder's service provider?

Answer:

FirstNet assumes the question refers to what type of technical interfaces will connect State Command Centers with the offeror's service. The RFP will require that offerors propose a solution in accordance with the guidelines referenced within the SOO and in Appendix C-7 Operational Architecture Functional Descriptions, sections A.3.5.1, A.3.4.2.1, and A.2.1.3.3.

188. In an emergency, how will the State Level Command Center disengage currently operating Band 14 commercial users and disallow further access / use during the incident?

Answer:

The subsequent RFP anticipates the offeror will demonstrate a proposed solution consistent with SOO Section C.5, objective 13.

189. Under incident command, how will the ComL activate a Band 14 device at an incident site? How will the ComL report lost devices?

Answer:

This is a local issue that requires local policies and procedures, which will be driven by adoption of Band 14 services for use at the local level. Implementation of those services and how those services are deployed will be up to local authorities.

190. If the RPF planning assumptions are changed how will these changes be cascaded through the RFP Appendixes?

Answer:

FirstNet will ensure all related RFP documents are updated as changes are made and executed via a formal amendment to the RFP after issuance prior to receipt of proposals.

191. Given the need for continuous upgrade and development of the network, what is the projected refresh cycle for user equipment and timetable for networking improvements?

Answer:

FirstNet anticipates offerors will propose a technology roadmap and network upgrade schedule that complies with the technical requirements referenced within the SOO. Additionally, the offeror's proposed solution should provide and maintain a 3GPP compliant Band 14 capable device portfolio that evolves with the 3GPP standards, and provides functionality and price points that meet the needs of the FirstNet customer base, driving substantial subscribership. Although a specific cycle cannot be specified at this time, features and functions are to be introduced in accordance with Appendix C-8 IOC / FOC Target Timeline, which will require annual major releases at a minimum. Software patches and minor revisions are expected to be required no more frequently than once per month which may be reflected in the subsequent RFP.

192. What security and data management requirements will offerors need to be aware of if they seek to develop and operate their own core? Would the placement of the FirstNet core in a contractor's environment require additional oversight, conditions, or connectivity issues not mentioned in the RFP?

Answer:

FirstNet will have a dedicated Core that shall have adequate security protections. The offeror should propose a solution identifying the connectivity required to ensure that FirstNet's stated objectives are met. Oversight will be determined based on the terms and conditions contained in the subsequent contract(s).

193. In the event multiple offerors are awarded regional solutions, what requirements does FirstNet suggest for data security and interoperability between multiple organizations?

Answer:

Appendix C-10 FirstNet Cyber Hardness Requirements has not been included in the Special Notice as it is still being developed in consultation with states, tribes, territories, public safety stakeholders, and market participants, and will be included in the subsequent RFP.

194. Approximately how many fixed-location LTE cores does FirstNet anticipate for the Nationwide Core Network? Given that the number of cores is a balance between reliability and complexity, this guidance may influence the submitted capabilities statements.

Document Reference: C-3 FCC Tab Section / Paragraph: 4.1.5.7

Answer:

Offerors should propose a Core network solution consistent with FirstNet's objectives.

195. How will this definition evolve as LTE becomes more efficient?

Document Reference: C-1 Coverage Objective Maps Page 1

Answer:

The subsequent RFP may require that an offeror's solution address the issue of evolution and efficiency. FirstNet does not intend to specify design requirements, only the requirements for coverage, capacity, availability, and other specified parameters as contained in the SOO and its associated appendices.

196. What is the process of increasing these throughput values as LTE evolves and becomes more efficient?

Document Reference: C-1 Coverage Objective Maps Page 1 Section / Paragraph: Table 1

Answer:

FirstNet may provide a growth plan which includes LTE evolution efficiencies with timelines in the subsequent RFP.

197. Will coverage maps be required as part of the RFP process? If so, potential site locations would need to be provided as part of the RFP.

Document Reference: C-1 Coverage Objective Maps Page 1 Section / Paragraph: Para 2

Answer:

The subsequent RFP (Section L) will specify the offerors' submission requirements.

198. Our interpretation of 295_C-1 is that FirstNet will require the RAN provider for MVNO deployments to meet the coverage guarantees in 295_C-1 paragraph 2. If our interpretation is not correct, who is responsible for meeting coverage guarantees for an MVNO deployment?

Document Reference: C-8 IOC / FOC Page 4 Section / Paragraph: 4.1.1

Answer:

The intent of the documents included in the Special Notice is to show the option of deploying a MVNO solution quickly after contract award to speed initial deployment to Public Safety Users, including all of the potential interfaces that might be affected. The details should be included in the offeror's proposed solution demonstrating it meets FirstNet's objectives.

199. B14 coverage from fixed sites starts with IOC-2 in limited areas and continues to 95% coverage objectives met at the end of IOC-5. Is there a testing/validation criterion required at the end of each IOC?

Document Reference: C-8 IOC / FOC Page 6 Section / Paragraph: 4.2.1

Answer:

Appendix C-6 Quality Assurance Surveillance Plan (QASP), as agreed to between the government and the awardee, will identify and govern the validation process.

200. Would there be less IOT risk in locating the associated MME with the particular Opt-Out State RANs?

Document Reference: C-4 SV-1 and StdV-1 Page 3 Section / Paragraph: Figure 2

Answer:

Since there will be a single, nationwide Core that may be distributed geographically for reliability and resiliency, it is possible that distributed MME within that Core may physically reside in a State that undertakes the responsibility to build, deploy and operate the RAN within their state. Although that State will be responsible for its RAN, the Core and all MMEs within the Core will remain under the control of FirstNet, regardless of physical location. FirstNet expects no additional IOT risk to be posed by this arrangement; moreover, placing MMEs within local control would introduce additional complexity and thereby increase risk to ongoing interoperability. MME will remain part of the nationwide Core Network.

201. Which specific performance levels are important to exceed commercial device performance?

Document Reference: C-6 QASP Page 11 Section / Paragraph: Table 2

Answer:

FirstNet has not made any determination on performance levels. SOO section C-5 Objective 4, Device Eco-System, posits device hardening as one area where commercial levels of performance may not be sufficient for Public Safety Users. FirstNet seeks feedback in this area in accordance with the Special Notice.

202. Only 6 of the 29 use cases are presented in the defined format, and there is very little detail presented for the remaining 23 cases. Where can we obtain additional information?

Document Reference: C-9 Use Cases Section / Paragraph: Section 2

Answer:

Additional use cases may be included in the subsequent RFP.

203. Does FirstNet intend to backhaul all traffic to a single location?

Document Reference: C-3 FCC Tab Page 63 Section / Paragraph: 4.4.6.6

Answer:

The subsequent RFP will require offerors to propose a network design, solution demonstrating it meets FirstNet's objectives.

204. Do you have usage examples that FirstNet envisions for each first responder group (normal, incident response, MAMA)?

Document Reference: C-9 Use Cases Page 4 Section / Paragraph: 4.1-4.6

Answer:

As outlined in the Special Notice and draft RFP documents, the subsequent RFP may contain Use Cases that would include each example requested.

205. For the overall users (13m) implies that there are federal users. Will the federal users have priority over First responders?

Document Reference: Pricing Appendix Page 3 Section / Paragraph: 1.3

Answer:

There is no presupposition of priority based upon level of government. FirstNet continues to work with the Public Safety Advisory Committee and the Public Safety Communications Research Laboratory to determine technical and governance solutions to prioritization questions. As stated in Appendix to the Special Notice, Pricing Concepts,, the inclusion of eligible users is based upon the definitions provided in FirstNet's enabling legislation, which is inclusive of federal emergency response providers.

206. Does FN envision having backhaul redundancy at each end site in the LTE network?

Document Reference: Pricing Appendix Page 4 Section / Paragraph: 4.1.3

Answer:

FirstNet's objectives for system availability are covered in SOO Section C.5 Objective 7, User Service Availability. Offerors should propose a solution that demonstrates it meets FirstNet's objectives.

207. What actions are expected to be taken in the first five minutes of a severe issue response? Contractors are graded on this category.

Document Reference: C-6 QASP Page 29

Answer:

As described in the SOO, network availability is of critical importance. A contractor's ability to respond quickly in the event of any network impairment or Public Safety User demand spike, is therefore very important to FirstNet. It is the responsibility of the offeror to propose a network operations plan, including items such as effective notification of issues to impacted partners and users, appropriate updates of issue status, communication of resolution and after action reporting to highlight how the issue will be averted on a go-forward basis. The offeror's proposed solution should provide details regarding its methodology with respect to industry standards such as International Organization for Standardization/International Electro technical Commission (ISO/IEC) 20000 service management processes. This information may be included in the subsequent RFP.

208. What practical restrictions exist on the types of traffic that may or may not share the NPSBN with public safety traffic? (see also C4 below)

Document Reference: C - SOO Section / Paragraph: C-3

Answer:

The concept in the Special Notice has not limited the types of traffic, except for an offeror's proposed solution demonstrating it meets FirstNet's stated objectives.

209. Does FirstNet have a list of capabilities, technologies and standards they foresee needing to incorporate in the future? Are there any that solution providers should avoid? This question applies to application as well as network solutions.

Document Reference: C - SOO Section / Paragraph: C-4

Answer:

Appendix C-8 IOC/FOC Target Timeline outlines the major features and functionalities, services and systems FirstNet believes are essential to meet the needs of its customers, Public Safety Users. This target timeline is anchored by the latest 3GPP release schedule and is expected to be adjusted as the standards body work progresses. This list is not exhaustive, and FirstNet seeks feedback, ideas and proposed solutions on which products, features, functionalities, services and systems should and should not be included in the FirstNet product portfolio. FirstNet seeks a more detailed features and functionality availability timeline along with proposals and innovative ideas as to how the timeline can be met.

To implement and make these products available, FirstNet expects to use standards based solutions, and seeks to continue to do so for the IOC/FOC target timeline as well as for future products unanticipated at this time and beyond the FOC milestones. Standards are listed in Appendices C-4, System and Standard Views (SV-1 and StdV-1, and C-5, FirstNet FOC – Features Standards Forecast (StdV-2), outlining those required at IOC and FOC, respectively.

210. Item 2: Please include a reference for the Operational Architecture referred to?

Document Reference: C-9 Use Cases Section / Paragraph: 4.8.3

Answer:

When referenced throughout the draft RFP documents, Operational Architecture references are to Appendix C-7, Operational Architecture Functional Descriptions. The Operational Architecture document is included in Visio, Word, and Excel formats. FirstNet seeks feedback via the Excel document, as outlined in the Special Notice.

211. What arrangements will exist to ensure interoperability between regions, for example with a major flood episode on the Mississippi? Even if the networks are interoperable, what about interoperability for information exchange and application integration across the network?

Document Reference: Special Notice Section / Paragraph: 4.4

Answer:

SOO Section C.5 Objective 1 requests offerors to propose a solution to build a nationwide interoperable network. Therefore, network interoperability should be addressed by offerors in their proposed solutions with regard to information exchange and application integration across the network.

212. Can FirstNet confirm the purpose of this chart? Is this is only a functional breakdown? Is this intended to be the overall WBS? Is FirstNet interested in ideas to proposals to streamline this functional breakdown?

Can we assume that this chart is not an enforced org chart? And given that assumption:

Does the contractor have freedom to create the organization that discharges these functions, or will the client have requirements in that area?

Document Reference: C-7 Operational Architecture

Answer:

Appendix C-7, Operational Architecture Functional Descriptions, contains system and task level diagrams of all functions FirstNet has currently identified that is needed to deploy and operate the NPSBN. These are included in 3 documents: a Visio diagram, showing a detailed functional breakdown of necessary tasks; and both Word and Excel documents that include descriptions of each task noted in the Visio diagram. All of these are meant to be functional, and not organizational, representations. FirstNet

seeks feedback, as noted in the Special Notice, regarding the details of the Operational Architecture and associated recommendations as to recommended ownership of each task.

213. Is there any intended priority or hierarchy between these KPIs

Document Reference: C-6 QASP

Answer:

The QASP as set forth in Appendix 6 is representative; an offeror is expected to meet all KPIs and metrics agreed to in the QASP between FirstNet and awardee(s) as part of the subsequent contract(s).

214. On page 19, Q-BUS-4 (and some others) - this KPI is not solely under the control of the contractor. In cases where responsibility is not solely on the contractor, how will responsibility be apportioned?

Document Reference: C-6 QASP

Answer:

FirstNet envisions that a Category One offeror is responsible for sales and marketing of FirstNet services, and therefore assumes responsibility for meeting agreed upon targets. Also, FirstNet seeks feedback regarding the QASP in accordance with the Special Notice.

215. FirstNet wants open standards and also specifies "or industry-standard best practice software methods". Does FirstNet have criteria to determine when industry-standard can be used in place of Open Standards?

Document Reference: C-6 QASP

Answer:

FirstNet intends to rely upon open standards where such standards are defined. In cases where standards are not defined, industry best practices may prevail.

216. Can we assume that derived PIV-I credential will be allowable to obtain user's credentials in addition to the use of the physical PIV card?

Document Reference: C-5 StdV-2 Section / Paragraph: 8.2

Answer:

Yes. FirstNet seeks additional feedback in this area in accordance with the Special Notice.

217. Please clarify the meaning of the MVNO 'box' in Fig.1

Document Reference: C-4 SV-1 and StdV-1 Section / Paragraph: 1

Answer:

The intent of the documents included in the Special Notice is to show the option of deploying a MVNO solution quickly after contract award to speed initial deployment to Public Safety Users, and all of the potential interfaces that might be affected. The details should be included in the offeror's proposed solution demonstrating it meets FirstNet's objectives.

218. First sentence has the word "provider". Should this word be "provide" instead?

Document Reference: C-4 SV-1 and StdV-1 Section / Paragraph: 4.2.8

Answer:

Yes, the word contained in the first sentence should be "provide". This will be corrected in the subsequent RFP.

219. The text seems to indicate that the various functions under Local Control are performed by the Contractor (Private Partner). This is contradictory to all statements in C7/Section A.2.1.3.3.1 (Local Control) and A.3.4.1.1

Document Reference: C-4 SV-1 and StdV-1 Section / Paragraph: 5.2.4

Answer:

Appendix C-7, Operational Architecture Functional Descriptions, defines tasks needed to deploy and operate the NPSBN. As indicated in the Special Notice, FirstNet seeks feedback on the ownership of each noted task. Network capabilities listed in Appendix C-4 System and Standard Views (SV-1 and StdV-1), section 5.2.4 are expected to be included in the offeror's proposed solution.

220. What is OV-5?

Document Reference: C-7 Operational Architecture Page 1

Answer:

The term "OV-5" is a term that was used which references the Operational Architecture. The term "OV-5" will not be referenced in the subsequent RFP. The term "OV-5" has been changed to "Operational Architecture" and will be corrected in the subsequent RFP.

221. Are these services in addition to VoLTE cellular voice service? If so, what is the use and expectation e.g. in terms of QoS?

Document Reference: C-7 Operational Architecture Section / Paragraph: A.7.2.5.1

Answer:

Yes, the FirstNet roadmap supports standards based Mission Critical Voice services including VoLTE, mission critical push to talk (PTT), Group Communication and Device to Device communication, and also other services such as data and video services. The use case of each service depends on the emergency situation. Each one of these services requires appropriate QoS requirements.

222. I assume this section is asking for E9-1-1, Text-to-9-1-1, and NG 9-1-1 support in the NPSBN. Correct?

Document Reference: C-7 Operational Architecture Section / Paragraph: A.7.2.5.2

Answer:

Yes, this section is referring to E9-1-1, Text-to-9-1-1, and NG 9-1-1 support in the NPSBN.

223. Time intervals between IOC phases are not consistent with Figure 1.

Document Reference: C-8 IOC / FOC Page 0

Answer:

The information contained in Appendix C-8, IOC/FOC Target Timeline, table and Figure 1, IOC/FOC Timeline, is correct. The initial sentence in each section stating "this phase will begin x years after the completion of" the previous IOC is incorrect. The information, issued in a subsequent RFP, will be updated to reflect this correction.

224. Availability of 99.9 does not match the QSAP Appendix 6 of 99.99. Which is the correct availability number?

Document Reference: C-6 QASP Section / Paragraph: Table 7

Answer:

As noted in SOO Section C.5 Objective 7 regarding User Service Availability, the service availability figure includes the reliability effects of all network components (core, gateways, eNodeBs, and backhaul) as well as the environmental survivability of the infrastructure and the benefits derived from deployable units."

As of the release of the draft RFP documents, the SOO reliability figure of 99.9% is correct; based upon comments the government receives, the draft RFP documents are subject to change.

225. Use of both words "lower" and "below" together appears redundant. Should the word "lower" be omitted?

Document Reference: J-3 Terms of Reference

Answer:

Yes. Lower should be omitted and will be reflected in the subsequent RFP.

226. Will the PS Agencies be able to source their own mobile devices or will all devices be procured from the NPSBN operator?

Document Reference: Pricing Appendix Page 6

Answer:

SOO Section C.5 , Objective 4 regarding Device Ecosystem requests that offeror(s) propose solutions that provide a robust device ecosystem. FirstNet anticipates that Public Safety Users will acquire devices from multiple sources.

227. Given the need for continuous upgrade and development of the network, what is the projected refresh cycle for user equipment and timetable for networking improvement's?

Answer:

FirstNet anticipates the offerors will propose a technology roadmap and network upgrade schedule that complies with the technical requirements referenced within the SOO. Additionally, the offeror's proposed solution should provide and maintain a 3GPP compliant Band 14 capable device portfolio that evolves with the 3GPP standards and provides functionality and price points that meet the needs of the FirstNet customer base, driving substantial subscribership. Although a specific cycle cannot be specified at this time, features and functions are to be introduced in accordance with Appendix C-8 IOC / FOC Target Timeline, which will require annual major releases at a minimum. Software patches and minor revisions are expected to be required no more frequently than once per month which may be reflected in the subsequent RFP.

228. What security and data management requirements will offerors need to be aware of if they seek to develop and operate their own core?

Answer:

The objective is to have a core that supports FirstNet solely. Federal, state and Local security protections would have to be in place to ensure it is a private core. It must support MVPN solutions and be in compliance with appropriate requirements from NIST, Criminal Justice Information Services (CJIS), and Internet Protocol security (IPsec). The offeror must determine the connectivity required to ensure public safety objectives are met as part of their proposed solution.

229. Would the placement of the FirstNet core in a contractor's environment require additional oversight, conditions, or connectivity issues not mentioned in the RFP?

Answer:

Since this is an objectives-based RFP, the objective is to have a dedicated FirstNet core. Additional requirements may be included in a subsequent RFP, in particular, Appendix C-10 Cyber Hardness Requirements.

230. In the event multiple offerors are awarded regional solutions, what requirements does FirstNet suggest for data security and interoperability between multiple organizations?

Answer:

Additional information may be included in the subsequent RFP, in particular, Appendix C-10 Cyber Hardness Requirements. FirstNet seeks feedback on these topics in accordance with the Special Notice.

231. Please clarify the minimum operating requirements for transportable "MCU" devices. How long must they operate without refill/recharge? Under what conditions and in what environments (heat, cold, humidity, wind, terrain, etc.)? What are the minimum acceptable network speeds and bandwidth requirements for such units?

Answer:

The MCU is an in-vehicle communications support concept. It is intended to draw power from an appropriate vehicle battery/generator system, with or without backup capabilities. FirstNet is looking for offerors to provide design specifications and criteria to meet its primary objectives of being part of the first responder's vehicle on a daily basis, maintaining FirstNet connectivity in a variety of ways and in remote locations, and supporting local/network communications from a FirstNet qualified device.

232. Is Q-DEV-8 too lenient regarding performance levels, considering the Interoperability and NPSTC reports?

Answer:

FirstNet seeks additional feedback in this area.

233. Are app containers acceptable or is the desire to have a dual persona on a mobile device?

Document Reference: C - SOO Page 3 Section / Paragraph: C5.4. d.

Answer:

FirstNet seeks to encourage a robust applications ecosystem to support public safety's unique needs, which may include the usage of container based solutions. FirstNet seeks further feedback in this area in accordance with the Special Notice.

234. It is possible to enable secure access to Web apps and other applications from mobile devices without a VPN. This would typically involve a custom app on the device and a gateway service that the device would connect through. Will it be acceptable, in some use cases, to provide secure mobile connectivity and access to apps without using traditional mobile VPNs?

Document Reference: C-3 FCC Tab Page 62 Section / Paragraph: 4.5.3.2

Answer:

FirstNet seeks to encourage a robust applications ecosystem to support public safety's unique needs. The associated use cases have to be examined case by case to determine the possibility of a custom app on the device securely connecting through a gateway service. FirstNet seeks further feedback in this area in accordance with the Special Notice.

235. Please define "campaigns".

Document Reference: C-9 Use Cases Page 20 Section / Paragraph: 4.8.9.

Answer:

"Campaign" is used with respect to Mobile Device Management (MDM) and includes the process where devices on the FirstNet system receive needed updates or changes to their configurations and settings. These updates and changes can affect items from mobility management parameters and security settings to the applications on the device. It is expected that MDM campaigns could be pushed to any numbers of devices and be orchestrated potentially by device OEMs, FirstNet, its partners, customers

and agencies. FirstNet seeks feedback and recommendations on how to best to allow for and implement the need to update mobile devices on its system.

236. Is the billing system described here part of the B/OSS? How (who) will build the B/OSS? How will it be managed going forward? Intent is to understand how application management should tie in to it.

Document Reference: C-9 Use Cases Page 16 Section / Paragraph: Section 4.8.6.2

Answer:

Yes, the billing system is to be proposed as part of a complete B/OSS solution.

237. Is there an existing system for managing users & groups (e.g.- AD)? Intent is to understand how to integrate policy management into it.

Document Reference: C-9 Use Cases Page 0 Section / Paragraph: Section 4.8.6.3

Answer:

FirstNet anticipates a standards-based approach to managing users and groups. No system exists today. FirstNet expects offerors to provide complete solutions that includes a system for managing users and groups.

238. Is the ordering system described here part of the B/OSS? Intent is to understand how to integrate into it for New User Provisioning.

Document Reference: C-9 Use Cases Page 17 Section / Paragraph: Section 4.8.6.4

Answer:

Yes, the ordering system is to be proposed as part of a complete B/OSS solution.

239. Does this use case include "insider threat" for those users on the PSEN that may abuse their access rights to perform such activities as sabotage and espionage?

Document Reference: C-9 Use Cases Page 47 Section / Paragraph: Section 4.27 Security

Answer:

Yes, it would include an insider threat for those users on the PSEN.

240. How will system acceptance be achieved? Will a further set of requirements be defined that constitute acceptance of network at each phase?

Document Reference: C-8 IOC / FOC Page 0 Section / Paragraph: Target Timeline, 1

Answer:

FirstNet anticipates that the subsequent RFP will include a test strategy document that details the expectations. FirstNet seeks feedback in this area in accordance with the Special Notice.

241. Regarding MCU bullet, does this mean that deployables will not be generally available until this time, i.e., 36 mo. out?

Document Reference: C-8 IOC / FOC Page 0 Section / Paragraph: Column IOC-4

Answer:

No, the MCU is a specific category of deployable which is meant to be part of the Public Safety User's vehicle on a daily basis. The concept requires innovative design and engineering to meet FirstNet's objectives, so its availability has been scheduled for later in the phases. Traditional deployables (e.g., SOW, COW, COLT) should be available earlier.

242. There are only six months between the roll out of a contractor's non-BC14 commercial service (IOC-1) and a BC14 service with FirstNet core (IOC-2). A concern that the effort to stand up the commercial service, from branding to billing, becomes a distraction and actually slows and complicates deployment of "true" BC14 service, given the short life span of IOC-1 service. Is FirstNet's intention to run IOC-1 service in parallel as IOC-2 and subsequent releases are phased in for different geographies?

Document Reference: C-8 IOC / FOC Page 0 Section / Paragraph: timeline, 4.2 IOC-2

Answer:

FirstNet seeks feedback on how to launch its services and systems to allow for public safety usage as quickly as possible while beginning to reach sustainability as soon as possible.

243. Who is responsible for the integration cost of the Category 2 Regional/State networks with the Category 1 National network and core?

Document Reference: Pricing Appendix Page 0 Section / Paragraph: 2.1

Answer:

At this time, in accordance with the Special Notice section 2.1.2, FirstNet proposes that the Category Two offeror is responsible for costs associated with integrating the Category Two solution into the

nationwide network. FirstNet seeks feedback on this topic, including the process for determining the costs and the appropriate responsible party.

244. Devices - What is the refresh cycle for replacing devices?

Answer:

In accordance with SOO Section C.5 Objectives 4 and 13, in their responses to the subsequent RFP, offerors would be expected to propose their solutions. FirstNet expects the device life cycle to be dependent on the device and its usage but anticipates that they will be similar to those seen in industry. FirstNet is seeking expected device life cycles to be included and discussed within the proposed solution and recommendations in association with the device ecosystem sections of the RFP.

245. Bandwidth/Spectrum - What is the excess capacity of the spectrum?

Answer:

Offerors may calculate excess capacity based on FirstNet requirements and assumptions incorporated into the offeror's proposed solution for the radio and network design.

246. Ongoing Support - Will FirstNet have a trouble ticketing system, or will this be the responsibility of the Carrier?

Answer:

As this is a SOO–based acquisition, FirstNet seeks feedback on the optimal operational architecture that would include the solution pertaining to a trouble ticketing system in accordance with the Special Notice.

247. Ongoing Support - How will trouble tickets be closed out?

Answer:

Offerors would propose a solution in accordance with SOO Section C.5 objective 15, Customer Care and Marketing. FirstNet also seeks feedback on the optimal operational architecture within this area in accordance with the Special Notice.

248. Final RFP - Will FirstNet prepare process flow charts to define operating procedures in the final RFP?

Answer:

The operational architecture diagram details functional responsibilities and allows respondents to suggest demarcation points between FirstNet and offerors. For responsibilities defined within the

offeror's scope, FirstNet will expect offerors to define operational procedure frameworks as appropriate. For responsibilities wholly owned by FirstNet, process frameworks, as appropriate, may be provided for informational purposes within the subsequent RFP. For offeror responsibilities that intersect with FirstNet responsibilities, FirstNet requests that offeror's proposed solutions identify both process flows in a combined manner for the offeror and FirstNet based on the offeror's specific operational model, existing processes and/or other operational systems. If there are responsibilities an offeror believes FirstNet should own that are not defined, or insufficiently detailed in the operational architecture, FirstNet anticipates that the offeror's proposed solution specify how FirstNet should define and structure those responsibilities to most effectively and efficiently align with the offeror's proposed operational framework. Also, FirstNet seeks feedback within this area in accordance with the Special Notice.

249. Will the Final RFP include specifications for interior coverage? If interior coverage requirements are mandatory, will the RFP identify buildings requiring coverage and specify the IOC/FOC milestone by which coverage must be provided?

Document Reference: C-1 Coverage Objective Maps

Answer:

As part of FirstNet's outreach effort, FirstNet is having a dialogue with stakeholders about coverage objectives. Specific in-building coverage requirements will be a part of that discussion and will lead FirstNet to the coverage objectives, and updated maps will be released as part of the RFP. Offerors will ensure in-building penetration losses are accounted for in their design or provide in-building solutions to achieve FirstNet's definition of coverage in areas requiring in-building coverage, consistent with the coverage objective maps, to be released as a part of the subsequent RFP and financial sustainability objective.

250. What does the term "operational support" mean?

Document Reference: C - SOO Page 2

Answer:

The term "operational support" does not appear in the SOO, but could be interpreted to mean all actions needed to operate and maintain the NPSBN.

251. Please clarify the FirstNet network uptime in terms of required network reliability.

Document Reference: C - SOO Page 3

Answer:

FirstNet's objectives for availability are covered in the overall system availability objective outlined in SOO Section C.5 Objective 7, User Service Availability. As noted, this availability objective includes the reliability effects of all network components (e.g., Core, gateways, eNodeBs, and backhaul) as well as the environmental survivability of the infrastructure and the benefits derived from deployable units. Offerors are encouraged to respond with their solutions to accomplish these objectives as well as provide feedback on specific objectives in accordance with the Special Notice.

252. Does the primary RFP winner have to be able to provide Band 14 devices or simply work with device vendors to ensure there is a supply of devices?

Document Reference: C - SOO Page 4

Answer:

RFP respondents should explain how their offerings, and those of their partners, will meet FirstNet's objectives for devices as stated in the SOO Section C .5, Objective 4, Device Ecosystem. Also, FirstNet seeks feedback within this area in accordance with the Special Notice.

253. Must the devices described be supplied by the RFP winner or via an agreement with device vendors?

Document Reference: C - SOO Page 4

Answer:

RFP respondents should explain how their offerings, and those of their partners, will meet FirstNet's objectives for devices as stated in the SOO Section C.5, Objective 4, Device Ecosystem. Also, FirstNet seeks feedback within this area in accordance with the Special Notice.

254. As FirstNet upgrades the network, how long does an opt-out state have to upgrade to the same level?

Document Reference: C - SOO Page 5

Answer:

There will be change control processes in place for FirstNet and states that elect to take responsibility for building, operating and maintaining their own RAN. However, these states must also upgrade their networks on the same schedule as the NPSBN.

255. Are these exact interfaces required or can the vendor recommend changes that improve the overall standardization and integration of the network?

Document Reference: C-4 SV-1 and StdV-1 Page 4

Answer:

FirstNet seeks feedback on all aspects of the Special Notice and the Draft RFP. Also, FirstNet seeks feedback within this area in accordance with the Special Notice.

256. How will FirstNet/vendor handle roaming back and forth between multiple commercial networks and FirstNet?

Document Reference: C-4 SV-1 and StdV-1 Page 6

Answer:

FirstNet anticipates that an offeror may include roaming in their proposed solution in response to the subsequent RFP, in accordance with industry standards as outlined in Appendix C-4 System and Standard Views (SV-1 and StdV-1).

257. Is it the plan for FirstNet to use a roaming clearing house to provide roaming service settlements?

Document Reference: C-4 SV-1 and StdV-1 Page 6

Answer:

FirstNet anticipates that the offeror will be responsible for both the generation and collection of revenues associated with providing service, in addition to the operational costs of such service. Therefore, it would be the offeror's responsibility to enable roaming. Clearinghouses using industry standard data exchange and billing standards are assumed to be part of any roaming solution and should be specified within the proposed solution.

258. Is it the intent of FirstNet to make use of public Internet connections between these local control points and the NPSBN? If so, what level of data security is required?

Document Reference: C-4 SV-1 and StdV-1 Page 9 Section / Paragraph: 4.2.2

Answer:

Appendix C-10 FirstNet Cyber Hardness Requirements, has been not been included in this Special Notice, as it is still being developed in consultation with states, tribes, territories, public safety stakeholders, and market participants, and will be included in the subsequent RFP.

259. The stated connection between the NSPBN and the PSE appears to be IPv6, is this correct?

Document Reference: C-4 SV-1 and StdV-1 Page 13 Section / Paragraph: 5.2.1

Answer:

The desired connection between the NPSBN and the PSE is IPv6. FirstNet requires that the NPSBN shall support IPv4, IPv6, and IPv4/v6. There are still many IPv4 hosts, network, and services currently deployed and the NPSBN may need to interwork with them. Since IPv4 and IPv6 are not interoperable, both protocols will need to be supported in the NPSBN during the transition period from IPv4 to IPv6. See the Appendix C-3 Recommended Minimum Technical Requirements to Ensure Nationwide Interoperability for the Nationwide Public Safety Broadband Network.

260. If this is the case, will IPv6 be consistent across the entire network?

Document Reference: C-4 SV-1 and StdV-1 Page 13 Section / Paragraph: 5.2.1

Answer:

Yes, FirstNet's objective is to have IPv6 consistent across the entire NPSBN.

261. How will the use of IPv6 impact roaming to commercial networks that do not, as yet, support IPv6?

Document Reference: C-4 SV-1 and StdV-1 Page 13 Section / Paragraph: 5.2.1

Answer:

FirstNet anticipates that eventually all commercial networks will deploy IPv6, and there will not be any interoperability issues. During the transition period, both IPv4 and IPv6 protocols should be supported in the solution provided by the offeror(s) .

262. This section requires the bidder to make use of end-to-end encryption meeting Federal FIPS140-2 and multiple VPN paths. Is this intended for both private and public Internet?

Document Reference: C-4 SV-1 and StdV-1 Page 13 Section / Paragraph: 5.5.2

Answer:

Yes, this applies to both private and public Internet.

263. Is it the intent of FirstNet that the network partner/vendor will also procure devices for use on the network?

Document Reference: C-7 Operational Architecture Page 11 Section / Paragraph: A-2

Answer:

RFP respondents should explain how their offerings, and those of their partners, will meet FirstNet's objectives for devices as stated in SOO Section C.5, Objective 4, Device Ecosystem. Also, FirstNet seeks feedback within this area in accordance with the Special Notice.

264. Does this include: Dial-Up voice? Administrative PTT? Mission-Critical PTT? Off-Network PTT? If so, what does FirstNet believe to be the true deployment time for each of these?

Document Reference: C-7 Operational Architecture Page 26 Section / Paragraph: A.3.4.2.2.5.1

Answer:

The information contained in the draft RFP documents is current data as of the Special Notice release. Appendix C-7, Operational Architecture Functional Descriptions, is specific to IMS implementations of VoLTE. The deployment timelines are specified in Appendix C-8, IOC/FOC Target Timeline. Any changes will be reflected in the subsequent RFP.

265. If a vendor has a different plan to provide the same results as site hardening, and that plan can be implemented so FirstNet and the Public Safety community are satisfied, will FirstNet accept this alternate method of securing network reliability?

Document Reference: C-7 Operational Architecture Page 33 Section / Paragraph: A.3.4.2.8

Answer:

FirstNet seeks feedback on all aspects of the Special Notice and Draft RFP. Additionally, FirstNet's availability objective is stated in SOO Section C.5, Objective 7, User Service Availability. Offerors are encouraged to respond to the subsequent RFP with their proposed solution to accomplish these objectives as well as provide feedback on specific objectives in accordance with the Special Notice.

266. For how long and how often will network capacity tuning be required?

Document Reference: C-7 Operational Architecture Page 39 Section / Paragraph: A.3.6.3.3

Answer:

For as long as the NPSBN exists, there should be a network capacity tuning function, the frequency of which may be determined by any eventual arrangement between FirstNet and awardee(s) and in accordance with the QASP.

267. At present, ICS training courses are the purview of DHS-OES, is this a change in this long-standing policy?

Document Reference: C-7 Operational Architecture Page 41 Section / Paragraph: A.3.8.2.1.1

Answer:

There is no existing policy or policy change impacting other Federal Agencies. Training in the application of ICS principles to various missions, conditions and technologies is conducted by any number of agencies. Training in this instance is focused upon the application of FirstNet wireless broadband technologies under ICS-NIMS principles.

268. In March of 2012, the FCC established and ATIS approved the PLMN ID of 313-100. The APCO Broadband committee forwarded a nationwide numbering system to the Public Safety Advisory Council (PSAC) later in the same year. Please explain why this PLMN ID is not being accepted by FirstNet as the Public Safety PLMN ID?

Document Reference: C-7 Operational Architecture Page 42 Section / Paragraph: A.3.8.2.3.1.2

Answer:

The PLMN ID assigned by ATIS is being used by FirstNet.

269. Why, according to the chart on page 2, is FirstNet tying the development of the network to future LTE feature sets and 3GPP planned release dates?

Document Reference: C-8 IOC / FOC Page 2

Answer:

In addition, based on document Appendix C-8, IOC/FOC Target Timeline, FirstNet expects IOC-1 to include both telephony voice and data services. Please refer to section 4.1.2.7 where offers are expected to provide “Commercially available data and voice services” including VoLTE and 3G fallback.

270. Typical 3GPP release dates slip and features are not always included in releases for which they are presently scheduled. Does FirstNet intend to hold up the progress of the network build because of a missed feature or release date?

Document Reference: C-8 IOC / FOC Page 2

Answer:

Based on these statements, FirstNet expects offerors to provide voice features and services in line with then existing commercially available voice services.

271. IOC 4 calls for Mission-Critical network status to be achieved in 36 months. Does FirstNet believe the 3GPP Mission-Critical specifications will be released and vendors will have implemented these portions of the LTE standards in 36 months?

Document Reference: C-8 IOC / FOC Page 2

Answer:

Appendix C-8 IOC/FOC Target Timeline outlines the major features and functionalities, services and systems FirstNet considers are essential to meet Public Safety User needs. This list is not exhaustive and FirstNet seeks proposed solutions on which products, features, functionalities, services and systems should and should not be included in the FirstNet product portfolio. Proposed solutions, to the subsequent RFP, should include information with regard to a more detailed timeline of features and functionality availability, as well as innovative solutions as to how the timeline can be met.

To implement and make these products available, FirstNet anticipates to use standards-based solutions, and seeks to continue to do so for the target IOC/FOC target timeline as well as for future products unanticipated at this time and beyond the FOC milestones.

272. Please provide a more extensive definition of "coverage objectives met."

Document Reference: C-8 IOC / FOC Page 10

Answer:

A one mile by one mile grid block will be deemed "covered" (coverage objectives met) if more than 50% of the area meets the definition of coverage. Further details will be provided in the subsequent RFP.

273. What is FirstNet willing to do or to assist the vendor in doing to help guarantee this timeline will be met?

Document Reference: C-8 IOC / FOC Page 10

Answer:

Appendix C-7, Operational Architecture Functional Descriptions, outlines and describes the various functions expected by FirstNet. FirstNet is seeking feedback, ideas, and proposed solutions as to the descriptions and ownerships of these functions along with additions or deletions as appropriate. Also, FirstNet seeks feedback within this area in accordance with the Special Notice.

274. What else can FirstNet do or provide to assist in the expeditious construction of the network?

Document Reference: C-8 IOC / FOC Page 10

Answer:

Appendix C-7, Operational Architecture Functional Descriptions, outlines and describes the various functions expected by FirstNet. FirstNet is seeking feedback, ideas and proposed solutions as to the descriptions and ownerships of these functions along with additions or deletions as appropriate to meet FirstNet's objectives.

275. Who will be manufacturing the radios/transceiver base stations for First Net? Will this system use existing infrastructure or will a new one be rolled out?

Answer:

Offerors should propose a solution to the subsequent RFP that meets FirstNet's objectives and that may or may not include existing infrastructure.

276. FirstNet maintains the 3GPP Release 9 baseline to be used for user equipment. As the RFP, procurement, build, test, and then launch processes will take time, commercial networks and systems will continue to move beyond the Release 9 baseline. How does FirstNet intend to maintain alignment with the latest commercial platforms and chipsets in light of the timing considerations. The commercial systems and platforms ultimately drive the volume, pricing, and availability aspects.

Document Reference: C-3 FCC Tab Section / Paragraph: 1.3.2

Answer:

3GPP Release 9 or a future release is required. FirstNet's requirements are governed, in part, by the Interoperability Board Report found in Appendix C-3, Recommended Minimum Technical Requirements to Ensure Nationwide Interoperability for the Nationwide Public Safety Broadband Network. Section 1.3 states in all cases where these recommendations reference specific 3GPP standards (e.g., 3GPP TS 36.101), the intended meaning is that the standard to be applied is contained in 3GPP Release 9, or the future evolved equivalent of that standard that applies to future releases.

277. Device-to-Device (D2D) communications are not covered, is FirstNet following the commercial carriers and the 3GPP roadmap for D2D ?

Document Reference: C-3 FCC Tab

Answer:

As outlined in Appendix C-8, IOC/FOC Target Timeline, offeror's proposed solutions are expected to support direct mode communications in compliance with the 3GPP standard release schedule, which includes D2D communications.

278. Under the IOC-1 Launch column states "commercially available voice and data services". Does this imply VoLTE for voice services?

Document Reference: C-8 IOC / FOC Page 2

Answer:

FirstNet expects IOC-1 to include both voice and data services.

279. High-Power UE support is mentioned. What types of User Equipement will be required to support this feature? Vehicle mounted devices for sure, but what about the other device types, such as handhelds ?

Document Reference: C-8 IOC / FOC Section / Paragraph: 4.1.1

Answer:

FirstNet expects this ability with In-Vehicle Routers and seeks further input on what type of device might also serve as a high power UE in accordance with the Special Notice.

280. In this section, the Draft RFI specification states that "In addition, there may be several public safety specific issues which need to be resolved in order to provide PSTN voice service via the NPSBN. Examples of these issues are…Selective logging of calls for evidentiary purposes."

Is it FirstNet's intent that this specification refers to signaling ("Billing Records", per the NSA) media (Audio recording), or signaling only? How long would this data need to be retained? Is it "selective" because there are legal reasons not to keep this information for every call, or because it is perceived as too difficult?

Document Reference: C-3 FCC Tab Section / Paragraph: 4.1.10.1.6

Answer:

FirstNet seeks feedback on this, and all parts, of the Special Notice and Draft RFP documents. FirstNet has not established "call retention" policies at this time.

281. General question: The Recommended Minimum Technical Requirements to Ensure Nationwide Interoperability for the Nationwide Public Safety Broadband Network specifications make reference to pre-deployment testing (e.g., unit testing, interop testing, FOA, etc.). Would FirstNet please elaborate on your anticipated post-deployment testing/validation processes?

Document Reference: C-3 FCC Tab

Answer:

The post FOC testing/validation process would include those items listed in the QASP as set forth in Appendix C-6, and further clarification may be given and included as part of the subsequent RFP.

282. Who owns the MCU?

Document Reference: C-5 StdV-2 Page 12

Answer:

FirstNet is looking for offerors to propose an appropriate business model as part of the subsequent RFP.

283. In Category 1, the Contractor can expect to receive $6.5 billion that will be paid based on performance-based milestones being met. In a Category 2 scenario, how will the money be allocated to the various states or regions for the Contractor? What pro-rated calculation will FirstNet use to determine how the money is allocated?

Document Reference: Pricing Appendix

Answer:

FirstNet's proposed acquisition approach considers both Nationwide Proposals (Category One) and Regional RAN Proposals (Category Two), the latter of which could be integrated into a nationwide solution. For both categories, the offerors are to propose the quantity and timing of desired allocated government funding as part of their proposed solution; therefore, it is up to each offeror to propose how the amount of the allocated funding and the timing proposed for disbursement.

As noted in Section 1.1, Available Financial Resources, of the Pricing Concepts Appendix to the Special Notice, Category One offerors may request up to $6.5 billion of government funding from FirstNet's Budget Authority as a contribution to the up-front deployment and on-going operations of the network. For Category Two proposals, offerors would be required to propose the level of fixed quarterly payments and/or Budget Authority drawdowns based on the value of the FirstNet opportunity within the RAN and CLA region(s) they are proposing.

284. Following up the FirstNet presentations at Industry Day , [vendor name removed] would like to request a meeting to discuss possible teaming / partnering with you around the FirstNet acquisition. Please let me know if this is separate from the meeting request form [vendor name removed] filled out and submitted on Friday the 15th.

Document Reference: General

Answer:

The teaming/partnering list is a courtesy and FirstNet is not meeting with vendors with regard to that topic. As set forth in section 5.3 of the Special Notice, if you want to be included on the teaming/partnering list, please submit the business name and size, point of contact (name, e-mail address, phone number, etc.) to the Contracting Officer via email at Terrie_Callahan@ibc.doi.gov. All e-mail inquiries shall have "Teaming List – Reference # D15PS00295" included in the subject line. This information will be made available to all potential offerors via posting through the FirstNet website at www.firstnet.gov. It is not required to be listed on the source list in order to submit a proposal to any resultant RFP. This is optional and solely intended to be an avenue to facilitate potential subcontracting and partnering opportunities and FirstNet accepts no liability for any resultant outcomes."

If you are interested in a one-on-one meeting, click on "Information on One-on-One Sessions" in Solicitation Number D15PS00295B on www.FBO.gov.

285. I am inquiring about the process to included [vendor name removed] on the registered vendor list for the FirstNet final RFP. Is there a registration process outside of the Interested Vendors List in FedBizOpps on the current Draft RFP?

Answer:

There is not a registered vendor list for distribution for the FirstNet RFP. Any information regarding the FirstNet RFP, and subsequent release, will be posted on www.FBO.gov.

286. FirstNet has proposed two potential acquisition approaches (Category One and Category Two). The State recognizes that if any Category Two regional RAN/CLA options are considered, a hybrid approach will be required to ensure that a core and overall lifecycle management are also provided. In the case of a Category Two or hybrid approach, how will FirstNet ensure that all states and territories are accounted for?

Document Reference: Special Notice Page 5 Section / Paragraph: Section 4.3

Answer:

The proposed approach identified in the Special Notice would require Category One offerors to propose solutions for all states and territories, either as a single entity or in a teamed approach.

Category Two proposals encompass the RAN and CLA (use of excess network capacity) functions of the network. These proposals would be integrated into a Category One solution to create a seamless nationwide solution, if they contribute to the best nationwide solution for FirstNet's stated objectives.

287. What are the requirements associated with "non-color" gray grid blocks? Satellite and/or deployables are the assumed method. Is it up to the offeror to propose a solution that is acceptable (i.e., SLAs for deployables and the type of coverage, throughputs and latency that is achievable)? Is the offeror required to define "sub-regions" within the gray grid blocks of what solution is provided where?

Document Reference: C-1 Coverage Objective Maps Page 1 Section / Paragraph: Section 1

Answer:

The purpose of the "gray" blocks is to define the need for temporary on-demand coverage (e.g. deployables). Through our outreach efforts, we are working to define the requirements for the temporary on-demand areas. FirstNet's subsequent RFP may define how we assess coverage and throughput requirements.

288. Who determines how to use existing assets? Does the RAN-build offeror have final say over what is used?

Document Reference: Special Notice Page 3 Section / Paragraph: Section 4.1.3

Answer:

Under the concept in the Special Notice, Category One and Two Offerors would be responsible for determining whether use of existing assets is desirable, as part of developing their proposed solutions. Offerors could utilize existing infrastructure, capabilities, and any other assets to propose the best solution to FirstNet's stated objectives.

289. If there is a list of assets available, when will this list be made available to the RAN-build offeror? Since this is a driver in determining cost structure, how will this be made available for an informed RFP response?

Document Reference: Special Notice Page 3 Section / Paragraph: Section 4.1.3

Answer:

FirstNet does not anticipate providing information on terms and conditions for use of public and private infrastructure and capabilities prior to release of the Request for Proposals or receipt of proposals.

Under the concept in the Special Notice, FirstNet expects Category One and Two offerors to provide solutions to its stated objectives. Those solutions could incorporate publicly and/or privately owned infrastructure and capabilities. In addition, FirstNet may utilize federal, state, tribal, local and other

infrastructure to expand the network over the initial contracted coverage, if resources are available and determined to be in the best interest of the FirstNet network.

290. How will future requirements for evolved service be communicated, negotiated, and implemented? How should the offeror take this uncertainty into account when responding to the RFP?

Document Reference: C-3 FCC Tab Page 0 Section / Paragraph: Section 4.4

Answer:

FirstNet anticipates proposals from offeror(s) that will meet FirstNet's objectives, including 3GPP standards (Lifecycle Innovation, objective 13), user support and customer service (Customer Care and Marketing, objective 15 and Compelling and Competitive Priced Services, objective 3). FirstNet will also maintain consistent communication with Public Safety Users regarding numerous network-related issues. Any feedback received by either party may be used to assess developing new requirements for the network. It is anticipated that any such developments will evolve in a similar manner to the rest of the commercial mobile broadband wireless industry, and should be anticipated and accounted for accordingly. Additionally, FirstNet welcomes feedback with regard to a process and/or proposed structure for handling future requirements for evolved service.

291. Why is MVNO box in Figure 1 "gray – out of scope" while the IOC1 phase states that the RAN partner must provide MVNO services?

Document Reference: C-4 SV-1 and StdV-1 Page 2 Section / Paragraph: Figure 1

Answer:

FirstNet is seeking feedback on all SOO Appendices, including Appendix C-4 SV-1 and StdV-1. The initial IOC contemplates an MVNO solution using non-Band 14 broadband capabilities to expeditiously provide service to Public Safety Users, while Band 14 is deployed.

292. How are Category 2 bidders integrated with a Category 1 bidder (i.e. how are overlapping states handled from a bidding standpoint)? Or is the expectation that if a category 1 bidder is awarded, the Category 2 bidders would be excluded?

Document Reference: Special Notice Page 0 Section / Paragraph: Section 4.3

Answer:

It is anticipated that Category Two would be integrated into Category One only if the net value of a Nationwide solution, inclusive of Category One and Category Two proposals, represents better value than a Category One proposal alone.

293. Does a "state opt out" essentially mean that the state will be a "Category 1" provider for that particular state (i.e., end to end services), or is the opt out only for the RAN?

Document Reference: Special Notice Page 0 Section / Paragraph: Section 4.3

Answer:

A state that does not participate in the FirstNet RAN deployment must undertake responsibility for deploying, operating and maintaining the RAN. It must also connect to the FirstNet Core network and maintain certain other responsibilities. FirstNet's second Public Notice and request for comment, found at https://www.federalregister.gov/articles/2015/03/13/2015-05855/further-proposed-interpretations-of-parts-of-the-middle-class-tax-relief-and-job-creation-act-of, provides further information on these responsibilities and processes.

294. How are opt-out states handled from a Category 1 bidder standpoint? Is there any notion that FirstNet will need to rebid the project once all the opt-out states are known?

Document Reference: Special Notice Section / Paragraph: Section 4.3

Answer:

Initial proposals submitted by Category One offerors would be based on all states choosing for FirstNet to undertake responsibility for deploying, maintaining, and operating the RAN in the state. Information from proposals may be used to complete state plans, as required by FirstNet's enabling legislation. Federal acquisition procedures allow for several mechanisms to re-price or modify Category One solutions, depending on the acquisition "phase", if any particular state chooses to undertake responsibility for deploying, maintaining, and operating the RAN. FirstNet welcomes feedback on processes that would promote the best possible solution toward FirstNet's stated objectives.

295. Can you define what the key parameters are for deciding who gets the award for a given state (i.e., what tradeoff between price and functionality should the offeror make)?

Document Reference: Special Notice Page 0 Section / Paragraph: Section 4.3

Answer:

The evaluation criteria will be included in the subsequent RFP in Section M. As required by the Federal Acquisition Regulations (FAR), specifically 15.305, all factors and significant sub factors that will affect contract award, and their relative importance, will be stated clearly in the solicitation. This would include any correlation to price evaluation and the proposed solution, which is considered a best value acquisition approach versus a lowest price technically acceptable solution.

If FirstNet makes the determination the best value acquisition approach is in the best interest of the NPSBN acquisition, this would be considered a tradeoff process. This process permits tradeoffs among cost or price and non-cost factors and allows the Government to accept other than the lowest priced proposal. In this approach, the perceived benefits of the higher priced proposal would merit the additional cost, and the rationale for tradeoffs would be documented appropriately.

296. How does money/value change hands with a Category 2 bidder? We understand that the bidder would propose a quarterly fee/drawdown schedule based on RAN costs, synergies, and secondary usage. Does the Category 2 bidder only have a financial relationship with FirstNet (and not whoever owns the core/public safety billing relationships)?

Document Reference: Pricing Appendix Page 6 Section / Paragraph: Section 2.1.2

Answer:

FirstNet's goal is to achieve a seamless, fully interoperable nationwide network with minimum execution risk. Under the concept proposed in the Special Notice, Category Two offerors would have a financial relationship with FirstNet. These offerors would propose a solution to FirstNet's stated objectives and a fixed fee payable to FirstNet based on the offerors valuation of excess network capacity and any other value it sees in entering a contractual relationship with FirstNet. FirstNet anticipates that certain technical and business procedures may be developed as part of a subsequent RFP to govern the relationship between any Category One and Two awardees and seeks feedback on the structure of the procedures that will most effectively meet FirstNet's overall goal of a seamless, fully interoperable nationwide network.

297. How does money/value change hands within a Category 1 consortium? Or is this not defined and it is only the relationship between the consortium and FirstNet that is detailed with the "quarterly payments"?

Document Reference: Pricing Appendix Page 6 Section / Paragraph: Section 2.1.1

Answer:

FirstNet does not intend to become involved in the details, and/or process, of transfers of money/ value within a Category One consortium.

298. What is the timing of budgetary authority drawdowns with regards to IOCs? Is this to be proposed by the offeror? Can an offeror request full budgetary authority to drawdown upfront (e.g., to fund long lead time requirements like site builds)?

Document Reference: Pricing Appendix Page 2 Section / Paragraph: Section 1.1.1

Answer:

Yes, an offeror can request full budgetary authority to drawdown upfront based on their proposed solution. However, FirstNet's goal is to develop a payment structure that minimizes execution risk and ensures performance of FirstNet's stated objectives. The proposed milestone structure does this by only providing payments after objectives are achieved based on the proposed solutions and the subsequent award.

FirstNet welcomes any feedback or suggestions on mechanisms to meet our objectives, reduce risk and ensure performance. Offerors are welcome to propose an accelerated schedule for achievement of the milestones compared to that included in the Special Notice.

299. Will there be guidance on the percentage of the budgetary authority available to each state?

Document Reference: Pricing Appendix Page 2 Section / Paragraph: Section 1.1.1

Answer:

No, FirstNet has not set guidance on the percentage of the Budget Authority available to each state. Offerors are expected to propose the amount of Budget Authority required in their proposed solutions, either Category One or Category Two.

300. In the "Appendix_Pricing_Concepts" what is meant by 1.2 when it says that "FirstNet's sustainability requires that a potential offeror's proposed pricing solution must ensure that FirstNet maintains cash in excess of obligations for every year throughout the life of a subsequent award?" Does this include the $7B budget authority and does it allow for the notion that cash flows are very likely to be negative during the early IOC phases of the project?

Document Reference: Pricing Appendix Page 3 Section / Paragraph: Section 1.2

Answer:

The financial sustainability of FirstNet is required by the Middle Class Tax Relief and Job Creation Act of 2012. The Special Notice presented FirstNet's conceptual model for becoming financially sustainable. In addition to up to $6.5 billion in cash, offeror(s) could receive revenue from Public Safety User fees as well as any revenue obtained from using excess network capacity to provide service to non-Public Safety Users.

While the contractor's cash flows may be negative during early IOC phases, FirstNet may never have obligations in excess of its available Budget Authority.

301. If the goal is net positive cash flow, what happens with the leftover value? During Industry Day (5/14/2015) it was stated that excess funds would be used to reinvest into the network? But how/when does this happen? Are these reinvestments something that should be assumed when bidding the project or are these reinvestments something where usage would be determined on more of an ad hoc basis?

Document Reference: Pricing Appendix Page 3 Section / Paragraph: Section 1.2

Answer:

Under FirstNet's authorizing statute, FirstNet must reinvest any funding it receives into eligible costs of supporting the network.

The Special Notice and the Industry Day presentation described the proposed pricing concept, where offeror(s) would propose regular fixed payments to FirstNet. FirstNet would need to invest all of these fixed payments into eligible costs of constructing, maintaining, operating, or improving the network.

In addition, in SOO Section C.5, Objectives, FirstNet has multiple objectives (including numbers 1 and 13) which seek continued investment in the network. Offerors will be expected to account for these objectives as part of their proposed solutions.

302. Is it recognized that FirstNet could be cash flow negative in early IOCs before the ramp-up of both public safety adoption and secondary usage revenues?

Document Reference: Pricing Appendix Page 0 Section / Paragraph: Section 1.2; 2.1.1; 2.1.2

Answer:

The financial sustainability of FirstNet is required by the Middle Class Tax Relief and Job Creation Act of 2012. The Special Notice presented FirstNet's conceptual model for becoming financially sustainable. In addition to up to $6.5 billion in cash, offeror(s) could receive revenue from Public Safety User fees as well as any revenue obtained from using excess network capacity to provide service to non-Public Safety Users.

While the contractor's cash flows may be negative during early IOC phases, FirstNet may never have obligations in excess of its available Budget Authority.

303. Please clarify if there any restrictions on the resale or monetization of the excess capacity with a CLA. For example, could a 3rd party in theory sell "B14 only" phones to the public for secondary usage (i.e., like an MVNO)?

Document Reference: Pricing Appendix Page 6 Section / Paragraph: Sections 2.1.1; 2.1.2

Answer:

The Special Notice presented FirstNet's conceptual model for becoming financially sustainable. In addition to up to $6.5 billion in Budget Authority, offeror(s) could receive revenue from Public Safety User fees as well as any revenue obtained from using excess network capacity to provide service to non-Public Safety Users, depending on whether the offeror proposed under Category One or Category Two. In exchange, FirstNet requests that offeror(s) propose solutions to meet FirstNet's stated objectives and regular fixed payments to FirstNet to support ongoing program costs.

Other than the sustainability requirements and the pricing concepts identified within the Special Notice, FirstNet does not currently anticipate any restrictions on the resale or monetization of the excess capacity with a CLA. However, FirstNet is requesting feedback, in accordance with the Special Notice, with regard to this topic. Any additional information will be included in a subsequent RFP.

304. How far in advance is the "quarterly forecast" to FirstNet created? Is the offeror locked into the forecast that is created for the RFP? Given the 5 year timeframe and uncertainty of both public safety and secondary usage adoption, will there be opportunities to reforecast the expected cash flows (e.g., annual reforecasts)?

Document Reference: Pricing Appendix Page 6 Section / Paragraph: Sections 2.1.1; 2.1.2

Answer:

Under the framework proposed in the Special Notice and the related Pricing Concepts Appendix, FirstNet's assumption is that the offeror commits to a fixed level of payments to the Government at the time the contract is fully executed. Any proposed changes to the fixed fee will be handled through the contract modification process.

305. Is the reference to NG911 in IOC-3 (24 months) confined to the deployment of a standards-based interface between the NPSBN and ESInets to enable physical layer integration? If not, what is the scope of this requirement?

Document Reference: C-8 IOC / FOC Page 0

Answer:

NG911 services will be needed for NPSBN Subscribers (Primary users, not secondary users under a Covered Leasing Agreement) for their voice communications. The NPSBN should connect to and interact with the NG911 systems provided via the respective ESINet established to support the given NG911 system.

306. Section 4.4.6.3 of the Interoperability Board Report states that the NPSBN "must provide location determination capabilities commensurate with those available for consumers" (presumably, in accordance with FCC requirements). Is it FN's expectation that the NPSBN RAN provides such location services for NPSBN users?

Document Reference: C-8 IOC / FOC Page 0

Answer:

Yes, the NPSBN RAN should have capabilities to provide location determination services for NPSBN users.

307. If FirstNet plans to reach sustainability through synergies and excess capacity, does that prevent current carriers from teaming due to organizational conflict of interest (OCI)?

Document Reference: General

Answer:

FirstNet has not currently identified, and is not aware of, any OCI that would prohibit carriers from teaming. However, the subsequent RFP will contain terms and conditions as it relates to organizational conflict of interest. Also, it is incumbent upon the Contractor, if it discovers an organizational conflict of interest with respect to this solicitation and/or resultant contract, to make an immediate and full disclosure in writing to the Contracting Officer to include a description of the action the Contractor has taken or proposes to take to avoid, eliminate or neutralize the conflict.

308. Please clarify "secondary users" as referenced here. Reaching break even certainly requires serving a critical mass of second responders and probably a broader market of state, county and municipal staff members. Please enumerate the breadth of users that will be accepted by FirstNet as a result of learning from comments to the recent RFI defining public safety.

Document Reference: C-9 Use Cases Section / Paragraph: 2.4 and 4.25.2

Answer:

FirstNet has sought comment on its preliminary definition of secondary users in the Third Public Notice, please see http://www.regulations.gov/#!document Detail; D=NTIA-2014-0001-0001.

309. Section 6202(b)(2) of the FCC Tab states that "(1) A core network (A)Consists of all cell site equipment, antennas, and backhaul equipment, based on commercial standards, that are required to enable wireless communications with devices using the public safety broadband spectrum; and

As public safety and carrier wireless standards for hardening, preemption and priority are very different, please provide guidance on the appropriate reference services bundle that should be used to determine the 'most favored pricing'.

Document Reference: General Page 7

Answer:

One of FirstNet's key goals is Public Safety adoption of broadband, provided through Band 14. The Special Notice proposes "most favored customer" pricing arrangements as a means of ensuring equitable pricing to Public Safety Users for comparable services. FirstNet has not determined what constitutes a comparable service, and whether most favored pricing should apply to specific services provided by a firm or to broader industry averages. FirstNet seeks feedback on this mechanism (as well as other Public Safety adoption mechanisms) in Section 2.1.2.1 of the Appendix to the Special Notice.

310. Will FirstNet share asset details on the inventories of state, tribal and locally owned towers (and rights to private towers), roof space, backhaul, power, conduit and other elements plus terms and conditions under which they might be used by a prime contractor?

Document Reference: C-3 FCC Tab Section / Paragraph: 4.1.4

Answer:

FirstNet does not anticipate providing information on terms and conditions for use of public and private infrastructure and capabilities in the subsequent RFP.

Under the concept in the Special Notice, FirstNet expects Category One and Two offerors to provide solutions to its stated objectives. Those proposed solutions could incorporate publicly and/or privately owned infrastructure and capabilities currently available to the offeror for utilization. In addition, FirstNet may utilize federal, state, tribal, local and other infrastructure to expand the network over the initial contracted coverage, if resources are made available by the owner of the resource.

311. What terms and conditions comprise FirstNet's own negotiation goals with carriers for roaming agreements pursuant to the Spectrum Act 6211?

Document Reference: C-3 FCC Tab Section / Paragraph: 4.1.5.11

Answer:

FirstNet seeks to deploy, operate and maintain a NPSBN in accordance with the SOO contained within the Special Notice. Additionally, Section 6211 of the Act provides authority for the FCC to adopt rules in order to allow for roaming onto commercial networks and, in certain situations, priority access. Additionally, any terms and conditions pertaining to roaming should be identified in the proposed solution.

312. Would FN consider building a marketplace or allowing the contractor to build a marketplace for maximizing the value of variable excess network capacity?

Document Reference: Special Notice Page 7 Section / Paragraph: Section 4.5

Answer:

FirstNet does not intend to build any such marketplace. However, under the concept presented in the Special Notice, FirstNet would not place restrictions on the use of excess network capacity by offerors beyond commitments made by offerors to meet FirstNet's stated objectives as part of the proposed solution.

313. Potential impacts from unforeseen execution risk, especially potential changes or delays by any pertinent government agency, must be mitigated to enable all offerors to meet or exceed program requirements. In the event that Congress, National Telecommunications and Information (NTIA) or the Federal Communication Commission (FCC) makes pre/post-award changes, how will FirstNet address the need to have risk mitigation plans in place to prevent or address any impact to the offeror(s)?

Document Reference: C - SOO Page 2 Section / Paragraph: 12

Answer:

Unforeseen execution risks, new or changed laws and regulation, and other risks are the risks faced by mobile network operators today. FirstNet would encourage any potential respondent to the RFP to fully understand all risks, including laws and regulations, such as the Middle Class Tax Relief and Job Creation Act of 2012 and more broadly, the Communications Act, and associated rules and regulations, in order to develop an appropriate and robust business case for the construction and operation of the NPSBN. Additionally, prior to award, any changes would be executed as an amendment to the subsequent RFP, after award it would be executed as a modification to the contract, either bi-lateral or unilateral.

314. Having detailed phased coverage and capacity projections in advance of a final Request for Proposal (RFP) is necessary to validate a business model for FirstNet offerors. When does FirstNet anticipate releasing state-defined coverage and capacity projections and priorities?

Document Reference: C - SOO Page 5 Section / Paragraph: 1

Answer:

FirstNet anticipates refining its coverage objectives through its ongoing consultation process. Those coverage objectives may be included as a part of the subsequent RFP.

315. Pursuant to FAR 9.5 -- Organizational and Consultant Conflicts of Interest, there may be situations where a prime contractor who serves as both a covered leasing agreement partner and network service provider may have impaired objectivity or unequal access to information regarding system deployment and public safety adopters. Can FirstNet comment on their position regarding any anticipated mitigations from such an occurrence?

Document Reference: C - SOO Page 5 Section / Paragraph: C.5 /16

Answer:

This procurement is subject to the FAR's provisions on organizational conflicts of interest. The contracting officer will determine whether a particular conflict of interest may be appropriately mitigated under the circumstances and based on any particular mitigation plans, if presented.

316. There are multiple ways to address phased deployment approaches. There is a phased down-select approach to the procurement process, which allows the government to provide feedback to the offerors during multiple time phases in the procurement process. The goal of this approach is to provide meaningful feedback to offerors early in the procurement process as to whether the offerors have been able to provide a viable solution. This process is an extremely effective and recommended to help potential bidders better decide whether to continue pursuing an opportunity as prime or potentially join a team. On a procurement of this size, this type of down select process has been helpful in eliminating protests from bidders who receive no feedback early on until the award stage of the procurement. If not used the non-successful bidders can spend millions of dollars pursuing an opportunity only to find towards the end of the process that their bid was way off the mark. Companies would much rather know upfront than after the award that they were not in the competitive range from either a solution offering or potentially a price perspective. Will FirstNet implement a down-select process to allow industry feedback after or during industry one-on-one sessions scheduled for the summer?

Document Reference: Special Notice Page 9 Section / Paragraph: 5.2 / 1

Answer:

FirstNet is interested in allowing as much feedback as possible from interested parties, including states, tribes, territories, public safety stakeholders, and market participants, throughout the acquisition process. Therefore, FirstNet is in the process of making a determination with regards to acquisition strategy and approach that may include utilizing a multi-phased approach in accordance with laws and regulations. Any details and/or information pertaining to a phased approach will be identified within the subsequent RFP.

317. Spectrum Clearance: The 700 MHz spectrum is likely interfered by many external sources. Will there be a function to mitigate all harming sources prior to network rollout/operation?

Document Reference: C-7 Operational Architecture Section / Paragraph: A.1.3.2 , A.1.13.3

Answer:

Based on what FirstNet has learned from the early builder projects on Band 14, FirstNet believes that it is unlikely the Band 14 will be subject to interference from a significant number of sources. The contractor will be responsible for constructing and operating the network on a basis under which interference would be identified, resolved and/or mitigated prior to or during construction and initial operation and, as situations arise, such as new instances of interference, throughout the life of the contract.

318. The document specifies a 60 months period between contract award and FOC. What does this mean in regard to availability of $7b until the end of FY2022? Will the contract be awarded, negotiated and in place latest by the end of 2017?

Document Reference: C-8 IOC / FOC Page 1

Answer:

Under the Middle Class Tax Relief and Job Creation Act of 2012 (the Act), FirstNet has available up to $7 billion in Budget Authority, derived from Federal Communications Commission (FCC) spectrum auction proceeds. Offerors may request FirstNet contribute up to $6.5 billion of this funding as a contribution to the up front development costs of the NPSBN project during the base period of contract award. Under the Act, FirstNet must obligate these funds no later than fiscal year 2022, or the funds will revert to the U.S. Treasury for general deficit reduction FirstNet anticipates that obligations would commence at the time of contract award, and potentially disbursed in accordance with the proposed solution. Additionally, FirstNet seeks input on whether to include earlier and additional milestones for planning phases. Finally, offerors are welcome to propose an accelerated schedule for achievement of the milestones compared to that included in the Special Notice.

Additionally, the anticipated award date will be reflected in the subsequent RFP, to include any base and option periods. Also, FirstNet is seeking feedback with regard to the proposed period of performance for the NPSBN, see Section 5.1 of the Special Notice.

319. Will FirstNet share your position on Data Rights and other intellectual property issues?

Document Reference: Special Notice Page 3 Section / Paragraph: 4.1.2

Answer:

Information on data rights and intellectual property will be included the subsequent RFP.

320. How will the capabilities statements, including a vendor's selection of category 1 and / or 2 be used? Will submission in a particular category limit a vendor's options as the acquisition moves forward?

Document Reference: Special Notice Page 3 Section / Paragraph: 4.1.3

Answer:

No, submission of capabilities statements in a particular category does not limit a potential offeror's options or submission of a proposed solution.

The capabilities statement is to provide additional information to inform FirstNet and assist in making the determination of the approach that is in the best interest of FirstNet's NPSBN mission and objectives.

321. Covered Leasing Agreement (CLA): Excess Network Capacity is a key element of the FirstNet sustainability model. Actual terms of the governing CLA will likely have significant implications on the market value of the Excess Network Capacity. Given such, it seems important that FirstNet provide a CLA framework as described in A.1.9 prior to and/or as part of the Final RFP that provides direction and clarity to Offerors as a means of determining excess spectrum capacity value. Does FirstNet intend to do this?

Document Reference: Special Notice Page 5 Section / Paragraph: 4.2

Operational Arch - A1.9

Answer:

The CLAs will be executed separately and outside of this contract and therefore, the information may be included in the subsequent RFP for informational and proposal preparation and evaluation purposes, only as it relates to any proposed solution.

FirstNet welcomes feedback on the best methods for promoting value from all of FirstNet's value blocks in support of developing the best possible solutions for FirstNet's stated objectives. FirstNet will provide additional direction and/ or a framework, to the extent that it supports better solutions for FirstNet's stated objectives.

322. What will be the method to determine lowest price available? Will it be exact service for that exact location? How will FirstNet take into account unique arrangements that may not make prices comparable?

Document Reference: Special Notice Page 7 Section / Paragraph: Section 4.5.1

Answer:

One of FirstNet's key goals is public safety adoption of broadband, provided through Band 14. Section 4.5 of the Special Notice proposes "most favored customer" pricing arrangements as a means of ensuring equitable pricing to Public Safety Users for comparable services. However, FirstNet has not made the determination with regard to evaluation of proposed pricing submissions. This information would be identified within the subsequent RFP. Also, FirstNet requests feedback from industry on this mechanism (as well as other public safety adoption mechanisms) in Section 2.1.2.1 of the Pricing Concepts Appendix to the Special Notice.

323. C-3 Recommended Minimum Technical Requirements in its recommended considerations (30) states, "The NPSBN SHOULD use a set of pre-defined GoS Tiers to provide clear and uniform description of the services of network performance provided within a Coverage Area." It further specifies that service probability, data rates, and usage models should be included in a uniform set of GoS Tiers. C-1 ¶ 1 does not appear to fully specify GoS Tiers. For instance, coverage is defined with DL/UL rates and loading, but not with service probability or an applicable usage model. Does FirstNet intend to fully specify a set of GoS Tiers that would allow a uniform interpretation of coverage and capacity across its entire network?

Document Reference: C-1 Coverage Objective Maps Page 1 Section / Paragraph: 1. Baseline Coverage Requirements

Answer:

As noted in the Interoperability Board Report found in Appendix C-3 Recommended Minimum Technical Requirements to Ensure Nationwide Interoperability for the Nationwide Public Safety Broadband Network, the network should have the capability to support Grade of Service (GoS) tiers. FirstNet is seeking feedback on the GoS tiers. Any information pertaining to GoS Tiers may be included in the subsequent RFP as appropriate.

324. Is Design of in-building coverage and capacity in-scope?

Document Reference: C-1 Coverage Objective Maps Page 2 Section / Paragraph: 3.2

Answer:

Yes, design of in-building coverage and capacity are considered within-scope of the NPSBN objectives. Therefore, both in building coverage and capacity should be addressed as a part of the offeror's proposed solution in response to a subsequent RFP.

325. A - Will the usage models Light, Medium, Heavy, or Emergency be further defined to include the anticipated number of subscribers in a given Coverage Area?

B - Will any modeling be required to show the total bandwidth required during peak usage so sizing of the core backhaul traffic can be appropriately engineered?

Document Reference: C-3 FCC Tab Page 72 Section / Paragraph: 4.6.2

Answer:

A - As part of FirstNet's outreach effort, FirstNet is having a dialogue about coverage and demand objectives with the states. Specific coverage requirements will be a part of that discussion and will lead to the coverage and demand objectives and updated maps that may be released as part of the subsequent RFP.

B - It is recommended for offerors to perform modeling studies to appropriately size all portions of the network including core backhaul as it relates to their proposed solution. An offeror's proposed design should include solutions to address FirstNet overall demand needs with supplemental solutions as required and any assumptions made with regard to peak usage.

326. As part of the State consultation, can a baseline number of PSEs by State/territory be identified?

Document Reference: C-4 SV-1 and StdV-1 Page 13 Section / Paragraph: 5.2.1

Answer:

FirstNet's data collection effort asks the states/territories to provide an estimated number of qualifying Public Safety Entities (PSE), including entity name, discipline, location, POC, and total personnel. The question also asks the states/territories to provide the same information for those entities that qualifying PSEs wish to designate as PSEs within the state/territory (including Tribal lands) under terms of the Act. To date, FirstNet has leveraged data provided by Department of Homeland Security's Office of Emergency Communications (OEC) that is also available within Communications Asset Survey and Mapping (CASM) tool. Additionally, FirstNet has leveraged data from the Bureau of Labor Statistics

(www.bls.gov) to gather a baseline number. Any available information may be included in the subsequent RFP as appropriate.

327. At what stage during the acquisition process are final measurement metrics, performance targets and calculation to be agreed?

Document Reference: C-6 QASP Page 0 Section / Paragraph: Table 5, Q-OPS

Answer:

Any and all terms and conditions will be agreed upon prior to executing the award. This would include any measurement metrics, performance targets and calculations.

328. Will SLA – definition and term exclusion and its guiding principles be incorporated in the RFP?

Document Reference: C-7 Operational Architecture Page 10 Section / Paragraph: A1.11.1

Answer:

The subsequent RFP may contain information related to the obligations between a state that chooses to undertake building, operating and maintaining the RAN and the FirstNet Core. This information may be included for informational and proposal preparation purposes only.

329. Will FirstNet provide a preference of sites to be used for RAN and Core deployment such as government owned properties or will the site selection for deployment be at total discretion of the responder?

Document Reference: C-7 Operational Architecture Page 24 Section / Paragraph: A3.2.3

Answer:

FirstNet does not anticipate providing preference regarding RAN and Core network sites for the initial deployment. Offerors may be required to specify site location as it relates to the proposed implementation and deployment schedule as part of their proposed solution.

330. Is there an estimate of how many machine to machine devices will be connected to the NPSBN? Are machine to machine devices required to be IP enabled?

Document Reference: C-7 Operational Architecture Page 77 Section / Paragraph: A7.2.3.4

Answer:

FirstNet intends to develop subscriber forecasts through its consultation efforts, which may include machine to machine forecasts. FirstNet, however, encourages offerors to develop their own internal

business models, which in addition to public safety connections could include machine to machine, Internet of Things, and all other uses for Band 14 network capacity.

Any technical requirements for devices connecting to and using the network may be provided in the subsequent RFP.

331. RF Solutions include satellite services. It does not specify if these are required to be backhaul (BH) or access or both. Please clarify.

Document Reference: C-8 IOC / FOC Page 2 Section / Paragraph: Section 2 Table

Answer:

FirstNet is looking for offerors' proposed solutions on how to best meet the objectives laid out in the SOO. FirstNet does not intend to limit possible solutions including on how satellite services are utilized.

332. Is "secondary responder" the same as "secondary user?" The Use Case Definitions document use both terms, and suggests secondary users/secondary responders are those that are provided service via FirstNet but at a lower priority than first responders. A.1.15.2 suggests that a secondary user is a user that is serviced via a CLA (e.g. not on FirstNet's core). Request clarification of these terms.

Document Reference: C-9 Use Cases Page 0 Section / Paragraph: Section 4.7, 4.15 (also C-7, A1.15.2 p9)

Answer:

Secondary users and secondary responders are not the same. A secondary user has been preliminarily defined as an entity that enters into a CLA with FirstNet and has access to network capacity on Band 14 spectrum on a secondary basis for the provision of non-public safety services only. Secondary responders are a type of PSE that provide Public Safety services in response to incidents or planned events. Examples of secondary responders might include utility workers, transportation personnel, and tow truck drivers supporting Public Safety activities. Secondary responders may be assigned higher or lower priorities at the discretion of a PSE with access rights to this function.

333. This section mentions opt-in states and territories. Will states be able to opt-in or opt-out periodically, or if they opt-in will they be required to stay in?

Document Reference: C - SOO Page 1 Section / Paragraph: C.3

Answer:

When a FirstNet state plan is delivered to a Governor, the 90 day window to make a decision begins. The Governor can choose to accept and proceed with the FirstNet plan or decide to assume the

responsibility of deploying and maintaining the RAN within the state. This decision is not one that can be changed periodically. However, as a reminder, no PSE will be committed to use FirstNet service regardless of the opt in/opt out decision. Also, the state plan decision process was a significant focus in FirstNet's second public notice. Should additional information be sought regarding FirstNet's preliminary interpretations regarding the state plan decisions process, see FirstNet's second public notice at federalregister.gov: https://www.federalregister.gov/articles/2015/04/07/2015-07691/further-proposed-interpretations-of-parts-of-the-middle-class-tax-relief-and-job-creation-act-of.

334. FN states it will "make available" Band 14 spectrum. What will a CLA allow a contractor to do with the spectrum; sub-lease, deploy and resell capacity, allow others to deploy and use spectrum separately, other, all of the above?

Document Reference: C - SOO Page 2 Section / Paragraph: C.3 para 5

Answer:

Under the concept presented in the Special Notice, FirstNet would not restrict the use of excess network capacity by offerors beyond commitments made by offerors, as part of their proposed solutions and as executed in any subsequent award(s), to meet FirstNet's stated objectives and any other legal obligations.

335. In FirstNet's equation for financial sustainability, it is stated that the combination of the various elements are anticipated to deliver a financially sustaining business model. Does FirstNet have studies or other information on anticipated costs or the valuation of excess network capacity to make available to potential offers as another data point in validating the model beyond what was discussed at Industry Day?

Document Reference: Pricing Appendix Page 2 Section / Paragraph: 1.1

Answer:

Under the concept proposed in the Special Notice, offerors could have access to value derived from PSEs, excess network capacity, government funding and any other value offerors anticipate in entering a contractual relationship with FirstNet. FirstNet anticipates that the valuation of excess network capacity will vary based upon the contractor's specific proposed solution, business model and other factors, and as such, any valuation information would be unlikely to prove useful as a benchmark.

336. Can we submit qualifications for a subset of the requirements?

Answer:

FirstNet is seeking capability statements from entities capable of meeting FirstNet's objectives and functions identified in Category One and Category Two. While FirstNet is not interested in receiving

capabilities statements for only a subset of the requirements, FirstNet is publishing a teaming/partnering list on its website as a courtesy. As set forth in section 5.3 of the Special Notice, if you want to be included on the teaming/partnering list, "please submit the business name and size, point of contact (name, e-mail address, phone number, etc.) to the Contracting Officer via email at Terrie_Callahan@ibc.doi.gov. All e-mail inquiries shall have "Teaming List – Reference # D15PS00295" included in the subject line. This information will be made available to all potential offerors via posting through the FirstNet website at www.firstnet.gov. It is not required to be listed on the source list in order to submit a proposal to any resultant RFP. This is optional and solely intended to be an avenue to facilitate potential subcontracting and partnering opportunities and FirstNet accepts no liability for any resultant outcomes."

337. Would FirstNet consider monthly payments to the prime contractor/s to help ease the financial risk the contractor would have to absorb in capital outlay between IOC milestones and FOC? This would be in lieu of the defined milestone payments as stated in the DRFP. Providing monthly payments would greatly reduce the prime contractors risk and capital outlay of billions of dollars to drive toward IOC-2 milestone

Document Reference: Pricing Appendix Page 2 Section / Paragraph: 1.1.1 Budget Authority

Answer:

Yes, offerors may include "monthly payments" identified within their proposed solution. In the Special Notice Section 4.5, Proposed Pricing Methodology, stated "Potential offerors would be required to propose the timing of when the funding is required to achieve the initial operating capability milestones that are detailed in the draft RFP documents." In response to a subsequent RFP, offerors may propose the timing and amount of payments, to the contractor, based on the completion of milestones. FirstNet's goal is to develop a payment structure that minimizes execution risk and ensures performance of FirstNet's stated objectives. The proposed milestone structure does this by providing payments only after objectives and milestones are successfully achieved.

FirstNet seeks feedback on mechanisms to meet the objectives, reduce risk and ensure performance of the contract(s).

338. Is FirstNet developing draft CLA leasing terms and conditions that would act as the baseline for a contractual leasing arrangement with a MNO? Specifically, the lease terms and conditions under which pre-emption and priority would be exercised.

Document Reference: Pricing Appendix Page 2 Section / Paragraph: 1.1.3 Excess Network Capacity

Answer:

The CLAs will be executed separately and outside of the contract, and therefore, the information may be included in the subsequent RFP for informational and proposal preparation and evaluation purposes

only, as it relates to any proposed solution. Note that pre-emption and priority obligations may potentially be located in other documents, such as network policies.

339. In this section you show Cat. 1 as all inclusive including National Core and all State and Territory RANS to include all other equipment, services, subscribers and CLA's to build FirstNet's Nationwide Network. In Cat. 2 you show RAN and CLA's. Is your intent to allow Cat.? 2 bidders to compete with Cat. 1 prime contractor's regional State RAN plans bids (States, Territories or groups thereof)?

Document Reference: Pricing Appendix Page 4 Section / Paragraph: 2.1.1, 2.1.2

Answer:

Offerors submitting proposals under Category Two would propose RAN and CLA solutions at a state level. It is anticipated that a Category Two subsequent award(s) would be integrated into a nationwide network established by a Category One provider. If the net value of a Nationwide solution, inclusive of Category One and Category Two proposals, represents a better value than a Category One proposal alone.

340. On page 7 your state, potential offers are expected to include favored customer pricing. This introduces risk for the contractor in that it introduces an unnecessary variable in a key element of the business case. Recommend that you consider removing this constraint and let the market set the pricing.

Document Reference: Pricing Appendix Page 0 Section / Paragraph: 2.1.2.1

Answer:

FirstNet is seeking feedback as part of the Special Notice within this area. Subscriber adoption and use of the NPSBN by PSEs is a key programmatic objective for FirstNet. FirstNet is open to potential solutions as to what mechanisms are available to FirstNet to achieve strong adoption and use of the NPSBN by PSEs at an economically feasible fee to public safety subscribers throughout the life of the subsequent contract(s).

341. Do we have to take design consideration for Local Breakout for traffic from Opt-out states to include Deployables when there is no backhaul/limited backhaul available?

Answer:

States who do not participate in the FirstNet-led RAN deployment would undertake the responsibility to build, operate and maintain the RAN within their state, including backhaul connectivity from eNodeBs and deployables.

342. Does FirstNet envision a process, either pre- or post-award for joint resolution of technical issues and associated questions?

Answer:

Please refer to the Appendix C-7 Operational Architecture Functional Descriptions for functions related to resolving technical issues post-award. FirstNet is seeking feedback on all functions and ownership of those functions. For pre-award technical issues and associated questions, FirstNet will allow for questions once the RFP is released for a time period to be determined and stated therein.

343. "The NPSBN SHALL be capable of providing public safety subscribers with access to the global Internet". Will the Government amend the RFP to clarify, is packet capture required and what minimum security sets are required for Internet traffic?

Document Reference: C-3 FCC Tab Page 8 Section / Paragraph: 1.3.1.11

Answer:

Public Safety subscribers will use the Internet both as a way to access home network systems and to access other systems and services available over the public Internet. Appendix C-10 FirstNet Cyber Hardness Requirements may include additional information in the subsequent RFP.

344. "The expected minimum uplink (mobile to network) and downlink (network to mobile) rates of data transmission SHOULD be specified for each GoS Tier. The specifications must also include the protocol layer at which the data rates are to be measured." The GoS section contains general guidelines for Grade of Service components. Will the Government amend the RFP to clarify that all protocols used will need to have overhead values depicted?

Document Reference: C-3 FCC Tab Page 13 Section / Paragraph: 1.4.6.35

Answer:

The offerors should identify the most appropriate methods to demonstrate their proposed solution, including measurements of data rates and inclusion of overhead values specified in the subsequent RFP.

345. "Recommended requirements are explicitly noted in the document and use the exclusive verb forms SHALL and SHALL NOT. These are referred to as Normative clauses. Recommended requirements are very short, usually single sentences per requirement. Many recommended requirements require a contextual framework to ensure that the requirement is interpreted in an unambiguous way. Therefore the document contains Informative language that frames the recommended requirements in their proper context, and therefore Informative clauses should accompany the requirements in RFPs." If "Should" elements move to "Shall" category, will these elements be retroactively framed? If so, will the Government amend the RFP to clarify who is responsible for the reframing effort?

Document Reference: C-3 FCC Tab Page 23 Section / Paragraph: 3.3.3

Answer:

It is possible that some of the requirements prefaced by "should" or "should not" will become mandatory, all or some of which would be applicable retroactively which would be stated in the RFP and any subsequent amendments.

346. "All Over the Top Applications can be further enhanced through the use of priority services, services that require the exchange of signaling messages between the LTE network and application to allow the application to request a specific priority treatment. The use of Over the Top applications will have an impact on network capacity requirements and perhaps other aspects of the LTE network as it evolves. LTE is further anticipated to greatly increase mobile video usage within the public safety workflow. Enhanced support for this and other applications through the introduction of QoS, priority services or other supplemental security services that are required by public safety must be considered as part of the network evolution plan." OtTA generally as cited above refers to applications that assume best effort transport. In this case, OtTA may require prioritization. Will the Government amend the RFP to clarify, if these will be placed at the lower end of the prioritization spectrum since they are optional services?

Document Reference: C-3 FCC Tab Page 38 Section / Paragraph: 4.1.10.1

Answer:

In the context of this RFP, being an Over-the-Top (OTT) application does not preclude the application from using QoS, Priority or Pre-emption provided the application is compliant with FirstNet's security, testing and certification model. Some OTT applications may be mission critical and receive the priority and QoS they require. It is envisioned that determining which applications are at the top of the prioritization range and which are at the bottom will be a local decision.

347. "The NPSTC Broadband Task Force report recommends that support of internet access be required on all LTE networks deployed. This access can come directly or via access to a home network with internet connectivity. Many of the home network services are only available on the agency private network and would better be served with private connectivity to the agency. Private connectivity allows for priority/QoS to be applied. Connectivity through the internet normally implies best effort only." It is assumed that both Public and Private sourced connectivity to Internet will need to be supported? Will the Government amend the RFP to clarify this assumption?

Document Reference: C-3 FCC Tab Page 38 Section / Paragraph: 4.1.10.1.1

Answer:

Public Safety agency networks are normally private and secured. The draft RFP documents reflect that both public and private connectivity to the agency network will need to be supported. The hardening objective, set forth in the SOO Section C.5 objective 9, further refines the connectivity by ensuring it is secure and redundant, thus protected from failures and intrusion. Appendix C-10 FirstNet Cyber Hardness Requirements may include additional information on this topic in the subsequent RFP.

348. "The NPSBN SHALL provide the ability for national, regional, and local applications to dynamically change a UE's prioritization and QoS using the 3GPP 'Rx' interface." Will the Government amend the RFP to clarify if the NPSBN will have a preferred mechanism for inter-Vendor/Segment support for dynamic re-allocation of access classes?

Document Reference: C-3 FCC Tab Page 69 Section / Paragraph: 4.7.2

Answer:

The information referenced (in Appendix C-3 Recommended Minimum Technical Requirements to Ensure Nationwide Interoperability for the NPSBN, Section 4.7.2. Profiles: Dynamic Modification (30)) is critical to provide user-based QPP in the NPSBN. The offerors proposed solutions should identify the mechanism to support dynamic re-allocation of access classes in response to a subsequent RFP.

349. The Telecommunications Act of 1996 outlined several imperatives to ensure that wireless and wireline service plans are subject to tierless competition. A key goal for this legislation was to avoid either intentional or unintentional marketplace monopolies. How does FirstNet intend to address this objective during the acquisition process and throughout the program lifecycle for their Band 14 spectrum? Will public safety have the opportunity to benefit from a variety of end-user packages and the potential of positive market forces that can be created from competition of similar end-user packages from a large pool of interested small, medium and large-scale service providers?

Document Reference: Special Notice Page 5 Section / Paragraph: 4.3

Answer:

One of FirstNet's underlying goals is to provide capabilities that will prove attractive for Public Safety Users and motivate them to adopt FirstNet's service to enhance the country's safety. Competition will support that goal by enhancing the quality of proposed solutions submitted through the acquisition process and after award, through potential in-scope enhancements, by providing Public Safety Users with capabilities that are currently unavailable. In addition, FirstNet's product offering to Public Safety Users will itself continue to be subject to market forces and competition and evolving technology.

In addition, objectives 3, 4, 5 and 13 in the SOO directly solicit solutions for providing compelling Public Safety User packages and maintaining innovation throughout the contract(s) lifecycle.

350. One large award to a single offeror may not encourage competition. Will the Government amend the RFP to clarify the procurement approach as either wireless carrier led or systems integrator led?

Document Reference: Special Notice Page 5 Section / Paragraph: 4.3

Answer:

FirstNet has not made the determination with regard to the most appropriate acquisition strategy that will result in the best overall value for a nationwide solution and the Public Safety Users. The information received as a result of the Special notice will provide feedback in order to assist with FirstNet's determination. This includes encouraging competition among potential offerors. FirstNet remains open to a variety of approaches that may be provided.

351. With respect to Budget Authority, the Government states the offeror may request FirstNet contributions of up to $6.5 billion for the up front development of the NPSBN project during the base period. Payments would be based on meeting the IOC/FOC milestones. This creates significant financial risk for the offeror to recoup costs incurred in meeting the IOC/FOC milestones. Will the Government amend the RFP to provide the offeror an option for a significant up-front payment with performance incentives/stipulations until the excess network capacity can be monetized?

Document Reference: Pricing Appendix Page 2 Section / Paragraph: 1.1

Answer:

FirstNet is developing attainable IOC/FOC milestones prior to execution of a subsequent award(s). Payments based on meeting those milestones are intended to mitigate execution risks in the timely deployment of the NPSBN. The structure of the RFP is still in development and FirstNet will consider any feedback received in the interest of achieving FirstNet's mission and objectives. Also, the offerors are to propose the quantity and timing of desired allocated government funding as part of their proposed

solution; therefore, it is up to each offeror to propose how the amount of the allocated funding and the timing proposed for disbursement.

352. What valuation models has the Government used to determine the dollar amount of a core connection fee to the opt-out states?

Document Reference: Pricing Appendix Page 2 Section / Paragraph: 1.1

Answer:

FirstNet has not developed rates of core fees for states that undertake the responsibility to build, operate and maintain their own RAN. These fees will be dependent on various factors including the nationwide solution(s) selected by FirstNet as well as potential RAN solutions.

353. Opt-in vs. Opt-out options impact offerors financial models. When Will the Government provide offerors with an assumed baseline of opt-out states and what data will be included in this baseline?

Document Reference: Pricing Appendix Page 2 Section / Paragraph: 1.1

Answer:

FirstNet understands the extent to which states undertake the responsibility to build, operate and maintain their own RAN will change the financial assumption for offerors for the NPSBN. The Pricing Concepts Appendix to the Special Notice contemplates an "all opt-in solution" with associated proposals and pricing.

354. Valuation of FirstNet's excess capacity is directly dependent upon FirstNet's ability to demonstrate the existence of an operational network. What is FirstNet's expectation of an offerors ability to accurately valuate excess capacity in advance of the design, build and operation of the NSPBN?

Document Reference: Pricing Appendix Page 2 Section / Paragraph: 1.1

Answer:

FirstNet expects that offerors will develop network architectures to meet FirstNet's coverage objectives, as identified in the Special Notice and to be updated through FirstNet's ongoing consultation processes. FirstNet also anticipates that offerors will design network architectures that produce coverage and capacity consistent with their business cases, thereby incorporating estimates regarding value for excess network capacity.

355. The estimated market size of 4 million to 13 million end users is too broad and will greatly affect pricing and cost models provided to the Government. Will the government amend the RFP to reflect the precise number that offerors should use for the addressable market size of end-users?

Document Reference: Pricing Appendix Page 3 Section / Paragraph: 1.3

Answer:

FirstNet has undertaken high level analysis of the potential addressable market and continues to assess it through consultation with states. However, FirstNet expects offerors responding to any subsequent RFP to develop and rely on their own analyses of addressable market in developing proposed solutions, including the value of excess network capacity. FirstNet does not intend to provide more precise information regarding addressable market size at this time.

356. A. With respect to the Government's desire to leverage existing infrastructure to create synergies, how will the government procure various services?

B. Will the government amend the RFP to indicate if the Government is procuring a commercial service or a public safety solution or a combination of both?

C. If a combination of both, please describe FirstNet's desired outcome for each.

Document Reference: Pricing Appendix Page 3 Section / Paragraph: 1.3

Answer:

A. Under the concept in the Special Notice, FirstNet expects Category One and Category Two offerors to propose solutions to its stated objectives. The proposed solutions could incorporate publicly and/or privately owned infrastructure and capabilities currently available to the offeror for utilization. In addition, FirstNet may utilize federal, state, tribal, local and other infrastructure to expand the network over the initial contracted coverage, if resources are made available by the owner of the resource. The offeror's proposed solution should make use of existing infrastructure "synergies".

B & C. As stated herein, FirstNet desires the best overall solution that achieves FirstNet's objectives. The subsequent RFP may contain information regarding whether the government will be obtaining a commercial service or a public safety solution or a combination of both.

357. The Government acknowledges the importance of Public Safety adoption of the NSPBN. The Government also discusses applications and services that will be deployed on the NSPBN that are specific to Public Safety needs and requirements. Such applications and services will require significant investment when compared to the services provided on today's existing commercial networks. Will the Government amend the RFP to clarify if the Government expects offerors to offer these services by pricing them at parity with today's existing commercial offerings that do not meet Public Safety needs to requirements?

Document Reference: Pricing Appendix Page 6 Section / Paragraph: 2.1.2.1

Answer:

One of FirstNet's key objectives is PSE adoption, provided through Band 14. The Special Notice proposes "most favored customer" pricing arrangements as a means of ensuring equitable pricing to Public Safety Users for comparable services. FirstNet has not determined what constitutes a comparable service, and whether most favored pricing should apply to specific services provided by a firm or to broader industry averages. FirstNet requests feedback from industry on this mechanism (as well as other PSE adoption mechanisms) in 2.1.2.1 of the Pricing Concepts Appendix to the Special Notice.

358. In an effort to support FirstNet in addressing their statutory obligation to provide rural coverage milestones for each phase of the deployment, when will the Government amend the RFP to provide the coverage and capacity requirements of each State, territory and tribal nation to prospective offerors?

Document Reference: C - SOO Page 4

Answer:

Coverage and capacity requirements of each state and territory may be updated in the subsequent RFP as this information is still being gathered during consultation.

359. With respect to an emergency that requires, the preemption of secondary users, will the Government amend the RFP to clarify what level of authority a local entity, such as a municipality or county have to self-initiate preemption?

Document Reference: C-7 Operational Architecture Page 22 Section / Paragraph: A.3.3.2

Answer:

The Operational Architecture (SOO Appendix C-7) that was included in the draft RFP documents defines functions that must be accomplished in order to make the NPSBN operational, and it defines who has ownership of each individual function. FirstNet has defined responsibility for a small number of these but is soliciting feedback as to the most efficient way to allocate responsibility and accountability, while ensuring an operating network. The governance structure associated with certain functions, including

who has permission to preempt secondary users, may vary from PSE to PSE or state to state. In addition, FirstNet anticipates that preemption actions will also have network congestion or blocking criteria that must be met before any secondary users are preempted.

360. When will FirstNet release the two omitted appendices, C-2, Service Level Agreement for Radio Access Network and C-10, FirstNet Cyber Hardness Requirements?

Answer:

SOO Appendices C-2, Service Level Agreement for Radio Access Network (RAN) Integration, and C-10, FirstNet Cyber Hardness Requirements, are still being developed and may be provided at a later date or in the subsequent RFP. Depending on when these documents are ready, FirstNet will make the determination to release as drafts or as part of the subsequent RFP.

361. What is the RFP scoring methodology as well as weighting for the various scoring criteria?

Answer:

The evaluation criteria will be included in the subsequent RFP in Section M. As required by the Federal Acquisition Regulations (FAR), specifically 15.305, all factors and significant sub factors that will affect contract award, and their relative importance, will be stated clearly in the solicitation.

362. The State was requested by FirstNet to provide five network coverage implementation phases as well as other requirements and information by September 30, 2015. Can FirstNet explain where and how this information will be used in conjunction with the RFP?

Answer:

FirstNet intends to use the deployment phases provided by the states and territories to help inform the phased deployment as well as help with prioritizing coverage. Additionally, the information may be used to in determining evaluation factors and sub factors.

363. The state minimum coverage maps do not reflect the actual State's input, and may or may not meet the actually minimum requirements. Is the intention to update these coverage maps based on individual state input derived from the phased coverage implementation plan requested by FirstNet and due by September 30, 2015?

Document Reference: C-1 Coverage Objective Maps

Answer:

In FirstNet's data collection efforts with the states, FirstNet is seeking, among other information, individual state input regarding the phased coverage implementation plan in such state, by the initial data collection due date of September 30, 2015. FirstNet released baseline coverage objective maps to identify potential coverage needs for Public Safety Users, with the intent of states using these maps as a starting point to validate and identify gaps as they submit refined coverage objectives back to FirstNet to be included in the subsequent RFP release. Due to the timing of the Special Notice release concurrent with FirstNet's consultation and data collection activities, FirstNet released the coverage objective baseline as part of the Special Notice. FirstNet also identified its intent of collecting and incorporating state inputs in its revised SOO Appendix C-1 posted May 13, 2015, which included the following sentence "Note: FirstNet anticipates that these maps will be adjusted based on inputs gathered through consultation."

364. The use of the term secondary users in this context (Public Safety support personnel) is no longer consistent with the re-use of the term in the Second Public notice to define CLA users. Please define the terms and apply a consistent usage policy.

Document Reference: C-3 FCC Tab Page 15 Section / Paragraph: 1.4.7

Answer:

FirstNet has sought comment on its preliminary definition of secondary users in its first Public Notice, dated September 24, 2014 and posted on www.federalregister.gov.

365. Where did the LEITSC_Law_Enforcement_CAD_Systems document come from and why is it in the RFP – not sure all would agree with the requirement for agencies to provide data to FirstNet. Also, the document is not dated nor does it have any references.

Document Reference: C-5 StdV-2 Page 14

Answer:

FirstNet will update this section in the subsequent RFP to provide updated references and sources.

366. With regard to software updates, does this requirement pertain only to the basic functions provided, or does it extend to the applications made available through the Applications Ecosystem?

Document Reference: C-7 Operational Architecture Page 41 Section / Paragraph: A.3.8.2.2.1

Answer:

Any subsequent award may include a quality control plan that will include a regression test policy to include end user applications and services. System upgrades to the network could trigger necessary regression testing throughout the network based on these plans prior to rollout of these upgrades.

367. A. Does FirstNet intend that "Demonstrate and showcase FirstNet-specific features and functionality" occur virtually?

B. If yes, to what extent should such events allow participants to interact with these features and functions?

C. Would such sessions be regularly scheduled, or on-demand as needed?

D. How many participants need to be supported per session?

Document Reference: C-7 Operational Architecture Page 41 Section / Paragraph: A.3.8.2.1.2

Answer:

A. FirstNet may reserve the right to have demonstrations of the proposed solution "occur virtually," which would be stated in the subsequent RFP.

B, C & D. Any parameters pertaining to demonstrations would be either provided in the subsequent RFP or during the acquisition process.

368. A. Does this requirement seek to establish a "Facebook-like" peer environment? B. Would this "update provisioning" be used for mutual aid circumstances to bring roaming responders into an incident? C. Would these services require that location services be activated in order to establish presence? D. Is the expectation that the applications enforce location services being switched on regardless of user preferences/controls?

Document Reference: C-7 Operational Architecture Page 74 Section / Paragraph: A.7.1.8.1

Answer:

A) No, this information as stated is not to establish a "Facebook-like" peer environment. See Appendix C-7 Operational Architecture Functional Descriptions, section A.7.2.3.5.3, Manage Agency Information Homepage for a description of the PSE home page.

B) No. FirstNet foresees that provisioning changes for mutual aid circumstances could be accomplished via local control capabilities. The wording of this function will be updated in the subsequent RFP for further clarification.

C) Yes. Consistent with all mobile phones and mobile networks as well as individual privacy rights, the ability to use GPS to locate a device and thus the user of that device, is under the control of that user. If the user turns location services off, the presence information associated with his/her device will not include GPS based location.

D) No. FirstNet does not currently foresee overriding user location control. Location control should be governed by PSE policy and individual control.

369. Will a consolidated RFP document be provided for stakeholder review prior to final release? The current disassociated document set makes review and appendix reference difficult.

Answer:

The current schedule for release of the subsequent RFP is December 2015. The complete RFP will be posted on www.fbo.gov. There will be sufficient time for review and questions. If FirstNet makes a determination it is in the best interest of the NPSBN program to release subsequent draft RFP documents they will also be posted on www.fbo.gov.

370. How were costs and user count assumptions derived?

Answer:

The Special Notice's estimate of the potential size of the Public Safety User market drew predominantly on data from the Bureau of Labor Statistics, and also sources including the Bureau of Economic Analysis, US Census Bureau, State Government Websites, and a number of private databases.

Under the concept proposed in the Special Notice, subscriber adoption targets may be developed for inclusion in the subsequent RFP.

FirstNet has preliminary internal estimates of network costs from market research, responses to RFIs and input from technical experts.

FirstNet encourages offerors to develop their internal business models, including costs and user count information, when competing to provide the best proposed solution for Public Safety Users.

371. Will cost and user count models be included in the final RFP?

Answer:

As noted in the Pricing Concepts Appendix to the Special Notice, as part of any subsequent RFP, FirstNet anticipates creating Public Safety User targets for each state or region that offerors may be required to meet for the entirety of the contract term, and may be enforced with disincentive fees. These targets may include cumulative number of billable connections by PSEs and/or targets for use of the network by

PSEs. FirstNet encourages offerors to develop their internal business models, including costs and user count information, when competing to provide the best proposed solution for Public Safety Users.

372. How will FirstNet subscribers receive service and support? From FirstNet? From contracted service providers?

Answer:

FirstNet is seeking feedback on functions listed in the Appendix C-7, Operational Architecture Functional Descriptions, to include customer service and support.

373. Who will be responsible for billing services? FirstNet? A contracted service provider?

Answer:

FirstNet seeks feedback on the overall approach regarding ownership of all the functions identified in Appendix C-7, Operational Architecture Functional Descriptions. Interested parties should provide information pertaining to their recommended approach and should identify which functions should be contractor owned (label as yellow), FirstNet owned (label as green), shared functions (label as orange), as well as those that are to be the responsibility of a PSE (label as blue) and out of scope functions (label as gray).

374. Will FirstNet establish regional service centers within each state or will FirstNet subscribers be dealing with the proposed FirstNet service provider directly?

Answer:

FirstNet is seeking feedback on functions listed in Appendix C-7, Operational Architecture Functional Descriptions, to include customer service and support. Feedback may include location of functions and services to be provided post-award in the description of the functions addressed, in accordance with the Special Notice.

375. Can the State SPOC organizations use the FirstNet GIS mapping software to transmit their critical coverage requirements to FirstNet?

Answer:

FirstNet provided each state and territory with baseline coverage objective maps in the form of GIS layer packages. FirstNet does not have a preferred GIS mapping software to use when updating these maps. The intent is to use these maps as a starting point for states to validate and identify gaps and then submit refined coverage objectives back to FirstNet. GIS layer packages are the preferred method to submit the refined coverage objectives; however, it can be provided in any standard GIS format.

376. Where does customer care reside? FirstNet? Bidder?

Answer:

FirstNet is seeking feedback on functions listed in Appendix C-7, Operational Architecture Functional Descriptions, to include customer service and support, in accordance with the Special Notice.

377. How will FirstNet manage customer/user direct support?

Answer:

FirstNet is seeking feedback on functions listed in Appendix C-7, Operational Architecture Functional Descriptions, to include customer service and support, in accordance with the Special Notice.

378. How are Band 14 devices authenticated, activated and deactivated?

Answer:

FirstNet expects the offeror's proposed solution will identify support procedures and equipment to activate and deactivate subscribers on the network. FirstNet expects agencies will be able to manage provisioning of their own users.

379. What is the projected turnaround time to authenticate and activate a device on the NPSBN?

Answer:

FirstNet expects the offeror's proposed solution will identify support procedures and equipment to activate and deactivate subscribers on the network. FirstNet expects agencies will be able to manage provisioning of their own users.

380. Please share a thumb nail sketch of the specific cellular network experience, product development experience, requirements development experience and incident command experience for each member of the FirstNet RFP team?

Answer:

The Government will not disclose any information pertaining to the RFP team. Per FAR 15.303, the evaluation team will be tailored for the NPSBN acquisition which includes the appropriate contracting, legal, logistics, technical, and other expertise to ensure a comprehensive evaluation of offers. This may include both federal employees as well as contractor support staff.

381. Who owns the master file of devices authorized on the network? The bidder? FirstNet? How will changes to this file be made?

Answer:

These functions are outlined in Appendix C-7 Operational Architecture Functional Descriptions. FirstNet seeks feedback on ownership of roles set forth in the Operational Architecture in accordance with the Special Notice.

382. What is the contracting officer's plan to reduce the risk of a contract award protest brought by the losers of RFP bids? An award protest could delay the FirstNet rollout for years.

Answer:

To mitigate protest risk, the Contracting Officer is following all appropriate laws and regulations pertaining to procurement integrity and the acquisition process. The Contracting Officer will also ensure that proposals are evaluated in accordance with the criteria as stated in the subsequent RFP.

383. Does the FirstNet Contacting Officer plan a bidder's conference after the release of the final RFP to answer bidder and consortium questions?

Answer:

The current acquisition schedule anticipates hosting an industry day/pre-solicitation conference in November 2015, prior to release of the RFP. If a determination is made that it is in the best interest of FirstNet to host a pre-proposal conference, it will be posted on FBO and allow sufficient time for potential offerors to review the subsequent RFP.

384. Will a pre-bid conference – if convened, be mandatory for any responding entities?

Answer:

Attendance at any FirstNet-hosted event about the NPSBN acquisition is not mandatory for submission of a proposed solution in response to the RFP.

385. The FirstNet RFP issued on 24 APR is stated to be a framework document. Does FirstNet plan to issue a comprehensive requirements document for the bidders and consortiums to bid? Will the final RFP include use-cases?

Answer:

For clarification, FirstNet issued a Special Notice with draft RFP documents including a SOO. FirstNet intends to keep this objectives-based framework. The current schedule for release of an objectives-

based RFP is December 2015. However, once the RFP has been released, FirstNet will ensure sufficient time for potential offerors to review and/or submit questions. The subsequent RFP may include applicable use cases.

386. What are the criteria to disengage Band 14 commercial users? Who makes the decision? Governor? SPOC? State Level Emergency Commander?

Answer:

FirstNet envisions that preemption of secondary users under a covered lease agreement may occur either automatically or manually. In the automatic scenario, network policies based on usage, throughput, or congestion levels may trigger preemption. The precise details and conditions of the manual and automated policies have not yet been determined. FirstNet is seeking feedback from interested stakeholders on which policies best promote PSE communications and value to Public Safety Users.

387. Does FirstNet intend to prepare process flow charts to define operating procedure as part of the final release of the RFP?

Answer:

FirstNet welcomes feedback on operational procedures on the Operational Architecture set forth in Appendix C-7. The results of the questions, comments, and capabilities statements received may inform the subsequent RFP documents. It is currently unclear if flow charts will be part of that release.

388. What are the assumptions and methodology used to determine the number of devices projected on the network? Does FirstNet imply a guaranteed minimum number to offerors?

Answer:

As noted in the Appendix to the Special Notice - Pricing Concepts, as part of any subsequent RFP, FirstNet anticipates creating Public Safety User targets for each state or region that offerors would be required to meet. These targets may include cumulative number of billable connections by PSEs and/or targets for use of the network by PSEs. FirstNet, in conjunction with outreach and consultation with the states, is still developing the appropriate target levels. FirstNet encourages offerors to develop their internal business models, including costs and user count information in order to propose the best overall solution for Public Safety Users. The Special Notice concept does not imply a guaranteed number of Public Safety Users or non-Public Safety Users.

389. What are the assumptions and methodology used to determine the value and availability of excess spectrum? How will these assumptions change with adoption levels and/or bandwidth demands by public safety?

Answer:

FirstNet encourages offerors to develop their own internal business models when developing proposals to respond to the subsequent RFP, this would include any assumptions made as it relates to development of the proposed solution.

Since the fixed payment to FirstNet, proposed by the offeror will be set at award, any subsequent changes in assumptions regarding adoption or bandwidth demand will not change the level of these fixed payments, unless mutually agreed upon and a formal modification to the contract(s) is executed.

390. Does FirstNet anticipate sharing revenues with agencies to offset agency staff involvement in network operations and user support?

Answer:

FirstNet envisions a scenario where the contractor(s) are entitled to the use of public safety revenues and excess network capacity. Under the concept presented in the Special Notice, a contractor would compensate FirstNet for use of network capacity, public safety revenues, up to $6.5 billion in Budget Authority and any other value it sees in entering a contractual relationship with FirstNet in the form of a fixed payment. Arrangements concerning network operations and user support would need to be negotiated and agreed to with the offeror(s). In addition, any service or products that FirstNet procures that are outside the scope of comprehensive NPSBN solicitation would be acquired through FirstNet's standard acquisition processes.

391. Please describe the use of "disincentive fees" to promote adoption. In the event of a state seeking to opt-out of FirstNet, how would such fees apply? For example, could a vendor potentially suggest that a low-interest state opt out (perhaps completely - not building a RAN) in order to avoid disincentive fees that would result from low adoption?

Answer:

Part of FirstNet's mission is Band 14 broadband adoption by Public Safety Users in every state and territory. The disincentive fee is a mechanism to enforce Public Safety User adoption targets that intend to prevent solutions that potentially result in low use of Band 14 by Public Safety Users or excessively favor excess capacity use by non-Public Safety Users. In the Special Notice, FirstNet requests feedback on the structure of Public Safety Users adoption targets and other mechanisms for supporting its goal of Public Safety Users adoption of Band 14 broadband, to include feedback with regard to disincentive fees.

States that decide to undertake responsibility for deploying, operating and maintaining the RAN must develop an alternative plan that meets certain conditions outlined in FirstNet's enabling legislation and subsequent Public Notices. FirstNet has not determined whether such states must also incorporate adoption targets as part of their alternative plans.

392. How will agency-level applications hosted on local servers not owned by FirstNet be treated compared to applications hosted on the FirstNet core? What conditions does FirstNet anticipate for software upgrades in the applications ecosystem to ensure interoperability?

Answer:

PSE applications hosted on the PSE's infrastructure will be managed by that agency, not FirstNet. Standard interfaces, published APIs, testing, certification criteria, and ongoing version control are all tools for enabling interoperability of applications and access to data.

393. Will there be a future RFP with more specific requirements regarding the Applications Ecosystem?

Answer:

As indicated in section C.2 of the SOO; "This SOO lists high level objectives, with minimum requirements, allowing latitude for contractors to define implementation details" in their proposed solutions. As such, FirstNet welcomes feedback on this approach.

394. How will you score each high level objective as it relates to contract award?

Document Reference: C - SOO Section / Paragraph: C.2.3

Answer:

The evaluation criteria will be included in the subsequent RFP in Section M. As required by the Federal Acquisition Regulations (FAR), specifically 15.305, all factors and significant sub factors that will affect contract award, and their relative importance, will be stated clearly in the solicitation.

395. Why are States, and/or Public Safety at a minimum, not involved with the determination of the features required for the NPSBN?

Document Reference: C - SOO Page 6 Section / Paragraph: C.9

Answer:

Public safety stakeholders have been heavily involved in FirstNet's consultation process and the development of the Interoperability Board Report found in Appendix C-3, Recommended Minimum

Technical Requirements to Ensure Nationwide Interoperability for the Nationwide Public Safety Broadband Network, and are invited to provide feedback on the draft RFP documents. This input is being considered when drafting the RFP and subsequent documents.

In addition, the Public Safety Advisory Committee (PSAC) has been very active and engaged providing input on a number of topics. The PSAC also includes representatives of state interests.

FirstNet has also received many responses from Public Safety Users and groups on the previously released RFIs, and FirstNet expects additional feedback, comments and responses on the Special Notice and draft RFP documents.

396. How did you determine these figures and are they negotiable?

Document Reference: C-1 Coverage Objective Maps Page 1

Answer:

The initial coverage objectives were set as a starting point to aid in determining desired coverage objectives within each state and territory. Also, FirstNet anticipates refining its coverage objectives through its ongoing consultation process. Those coverage objectives may be included as a part of the subsequent RFP. Through the Special Notice, FirstNet seeks feedback on how coverage objectives are defined.

397. How does this value compare to current 3GPP standards?

Document Reference: C-1 Coverage Objective Maps Page 1

Answer:

FirstNet is adhering to 3GPP standards. Through the Special Notice, FirstNet seeks feedback and comments on how coverage and demand objectives are defined.

398. How does this value compare to current commercially available 4G LTE and why were these parameters chosen?

Document Reference: C-1 Coverage Objective Maps Page 1

Answer:

The initial coverage objectives are intended for radio frequency link design purposes only. These have been determined via market research and state consultation. Through the Special Notice, FirstNet seeks feedback and comments on how coverage and demand objectives are defined.

399. What if a Public Safety Entity needs to operate in the 49% area of no coverage?

Document Reference: C-1 Coverage Objective Maps Page 1

Answer:

The maps that FirstNet released show the Band 14 coverage objectives and serve as a tool to create dialogue on what is important for Public Safety for a given state or territory. The maps will be updated through the consultation process. In addition, FirstNet anticipates use of deployables and other temporary on-demand coverage as outlined in the SOO.

400. How will FirstNet incentivize a contractor/offeror to provide greater throughput per Grid Color?

Document Reference: C-1 Coverage Objective Maps Page 1

Answer:

FirstNet is considering implementing several strategies to incentivize the offeror(s) to maximize network capacity and function. FirstNet anticipates setting subscriber targets that must be met by the offeror(s). In return the offeror(s) would be allowed to derive revenue from Public Safety Users, excess network capacity, and any other value it sees in a contractual relationship. Also, FirstNet seeks feedback on the best way to promote meeting its stated objectives, in accordance with the Special Notice.

401. What happens if the contractor fails to meet performance standards?

Document Reference: C-5 StdV-2 Page 1

Answer:

Post-award performance standards and remedies will be governed by the subsequent contract terms and conditions as well as all applicable laws and regulations afforded the Federal Government.

402. How will these throughput values increase without renegotiating the contract and is FirstNet seeking to increase it?

Document Reference: C-1 Coverage Objective Maps Page 1 Section / Paragraph: Table 1

Answer:

Offeror(s) should propose a solution that can grow with FirstNet throughput and Public Safety Users as noted in SOO objective 8 Service Capacity. Offeror(s) should identify any assumptions utilized in creating their proposed solution while incorporating the demand maps.

403. What is the definition of "local control as a service"?

Document Reference: C-9 Use Cases Page 14

Answer:

Local control is the capability for a PSE to self-administer its users, devices, services, and applications. Local control as a service is a potential service that could be provided, by a contractor, to PSEs that may not have the staff, resources, or expertise to self-administer their users, devices, services, and applications.

404. What is the difference between local control and "local control as a service"?

Document Reference: C-9 Use Cases Page 14

Answer:

Local control is the capability for a PSE to self-administer its users, devices, services, and applications. Local control as a service is a potential service that could be provided, by a contractor, to PSEs that may not have the staff, resources, or expertise to self-administer their users, devices, services, and applications.

405. Can you extend the Q&A period for two weeks?

Document Reference: Special Notice Section / Paragraph: 4.1.2

Answer:

The deadline for questions expired on May 27, 2015; respondents will have the opportunity to provide capability statements and comments through July 27, 2015.

406. If the answers to our question prompt additional question, may we contact the Contracting Officer for further clarification?

Document Reference: Special Notice Section / Paragraph: 4.1.2

Answer:

Yes, if the responses to questions prompt additional questions, you may contact the Contracting Officer for further clarification via the process identified within the Special Notice for submission of questions.

However, the Government reserves the right not to provide an answer. If, in the Government's opinion, the request for clarification cites an issue of significant importance, the Government may provide a written response that would be posted on FBO. Please note, questions and comments will not be protected as proprietary by the Government.

407. If part of FirstNet's $6.5B may be used for operations and maintenance of the NPSBN, does this imply that the goal of financial self-sustainability may be deferred on the timeline?

Document Reference: Special Notice Page 7 Section / Paragraph: 4.5

Answer:

FirstNet's sustainability is not deferrable. FirstNet must be financially sustainable at all times, as outlined in Section 1.2 of the Pricing Concepts Appendix to the Special Notice. This means that a potential offeror's proposed pricing solution must ensure that FirstNet maintains cash in excess of obligations for every year throughout the life of a subsequent award(s).

408. How does the 4M to 12M addressable market break down in terms of user type (Public Safety vs. other)? What factors will impact this range?

Document Reference: Pricing Appendix Page 3 Section / Paragraph: 1.3

Answer:

The Special Notice's estimate of the potential size of the Public Safety Users market is represented predominantly on market research, responses to RFIs, contracted technical expertise, and data from the Bureau of Labor Statistics, the Bureau of Economic Analysis, the U.S. Census Bureau, state government websites, and a number of private databases. In addition, the definition of what constitutes a PSE is currently subject to FirstNet's First Notice requesting public comment, published on September 24, 2014 on www.federalregister.gov, and FirstNet's Third Notice requesting public comment, published on May 5, 2015 on www.federalregister.gov.

Under the concept proposed in the Special Notice, subscriber adoption targets may be developed for inclusion in the subsequent RFP.

409. How are offerors to comment on the financial sustainability of the NPSBN if the level of FirstNet costs to be covered in the pricing solution are not estimated?

Document Reference: Pricing Appendix Page 6 Section / Paragraph: 2.1.1

Answer:

The financial sustainability of FirstNet is required by the Middle Class Tax Relief and Job Creation Act of 2012. The Special Notice presents FirstNet's conceptual model for becoming financially sustainable, that FirstNet seeks feedback on as part of the Special Notice. In addition to up to $6.5 billion in cash, offeror(s) could receive revenue from Public Safety User fees as well as any revenue obtained from using excess network capacity to provide service to non-Public Safety Users.

FirstNet must be financially sustainable at all times, as outlined in Section 1.2 of the Appendix to the Special Notice - Pricing Concepts. This means that a potential offeror's proposed pricing solution must allow FirstNet to maintain cash in excess of obligations for every year throughout the life of a subsequent award.

Also, FirstNet requests that, in response to a subsequent RFP, offeror(s) propose regular fixed payments to FirstNet to support ongoing program costs, such as costs associated with maintaining, operating, or improving the network. Those fixed payments would be negotiated prior to contract award(s) and would allow FirstNet to become financially sustainable by providing resources to support activities not initially funded in the contract(s) discussed in the Special Notice.

410. Should offeror assume that the current document labels of "shall" vs. "should" requirements define which are mandatory for the NPSBN or not?

Document Reference: C-3 FCC Tab

Answer:

It is possible that some of the requirements prefaced by "should" or "should not" will become mandatory in the subsequent RFP.

411. Is there any functional content in the green FirstNet cloud above and beyond the yellow partner/offeror content? Does this imply that FirstNet directly handles these interfaces rather than the partner/offeror?

Document Reference: C-4 SV-1 and StdV-1 Page 2 Section / Paragraph: Figure 1

Answer:

The green FirstNet cloud is inclusive of those functions where FirstNet is the functional owner as detailed in Appendix C-7 Operational Architecture Functional Descriptions. The cloud does not imply that FirstNet directly handles the interfaces that are to be provided by the offeror'(s) proposed solution.

412. Is it realistic to set goals for adoption per type of device or user? Wouldn't user demand drive the results?

Document Reference: C-6 QASP Page 8 Section / Paragraph: Table 2

Answer:

Subscriber adoption and use of the NPSBN by PSEs is a key programmatic goal for FirstNet. That is why the Pricing Concepts Appendix includes the concept of subscriber targets. FirstNet is looking for feedback, as part of the Special Notice, on mechanisms to effectively promote its Public Safety User adoption goal.

413. Is it the intent of the Government to apply FAR 12 to the acquisition of new goods associated with the buildout of service in Band Class 14?

Document Reference: Special Notice Page 9 Section / Paragraph: 5.2

Answer:

As part of market research and the acquisition process, the Contracting Officer (CO) is responsible for making a determination regarding commerciality, products and/or services. In order to assist the CO in making this determination additional information is being requested, in response to the Special Notice, with regards to commerciality as defined with FAR 2.101. If the determination is made regarding commerciality, the RFP would reflect those requirements in accordance with Federal Acquisition Regulations Part 12, Acquisition of Commercial Items.

414. Will the Government share any of the information gained during FirstNet state consultations pertaining to current commercial subscriber models, current pricing for commercial service, current service levels, etc., in order for the offeror to develop competitive pricing and service models.

Document Reference: C - SOO

Answer:

FirstNet may share non-proprietary data gained during the state consultations and data collection. The determination has not been made as to what information will be shared and in what format. However, information that is applicable may be included in the subsequent RFP.

415. Cloud Services Interconnection Testing – This paragraph outlines requirements for cloud services interconnection and interoperability. For end users of FirstNet, data portability/interoperability may be as important as access to different applications. Please clarify that offerors must also provide and test data portability between appropriate cloud services.

Document Reference: C-7 Operational Architecture Page 50 Section / Paragraph: A.3.8.2.4.3.7

Answer:

FirstNet foresees cloud services and platforms that provide NPSBN users (PSEs, application developers, application hosting providers, etc.) with secure cloud services comparable to what are provided by commercial cloud providers (Infrastructure-as-a-Service (Iaas), Platform-as-a-Service (PaaS) Software-as-a-Service (SaaS)). As such, FirstNet expects, in response to a subsequent RFP, offeror(s) will provide necessary APIs and interoperability testing so that customers of those cloud services have the ability to fully utilize the capabilities of their services. FirstNet seeks feedback with regard to what interoperability standards and testing may be of value, together with best practices regarding creation, operations, and management of a hosted cloud for Public Safety applications.

416. Third Party Sand Box Certification – DevOps and Sand Box environments are effective use cases for cloud services. Please clarify if Sand Box capabilities can leverage cloud services as long as Offerors appropriately secure FirstNet data and can move applications and data easily between Devt/Test/QA environments and Production Environments.

Document Reference: C-7 Operational Architecture Page 52 Section / Paragraph: A.3.8.2.4.4.1

Answer:

Components of the sandbox environment should be able to leverage cloud services. FirstNet anticipates offeror's proposed solutions will identify cost-effective, scalable, and secure technologies for the sandbox environment(s).

417. Who does FN define as public safety (up to 13m users)?

Document Reference: Pricing Appendix Page 3 Section / Paragraph: 1.3

Answer:

The Special Notice's estimate of the potential size of the Public Safety market is represented predominantly on market research, responses to RFIs, contracted technical expertise, and data from the Bureau of Labor Statistics, the Bureau of Economic Analysis, the U.S. Census Bureau, state government websites, and a number of private databases. In addition, the definition of what constitutes a PSE is currently subject to FirstNet's First Notice requesting public comment, published on September 24, 2014 on www.federalregister.gov, and FirstNet's Third Notice requesting public comment, published on May 5, 2015 on www.federalregister.gov.

Under the concept proposed in the Special Notice subscriber adoption targets may be developed for inclusion in the subsequent RFP.

418. Please provide a breakdown of public safety users?

Document Reference: Pricing Appendix Page 3

Answer:

The Special Notice's estimate of the potential size of the Public Safety User market drew predominantly on data from the Bureau of Labor Statistics, the Bureau of Economic Analysis, the U.S. Census Bureau, state government websites, and a number of private databases. In addition, the definition of what constitutes a PSE is currently subject to FirstNet's First Notice requesting public comment, published on September 24, 2014 on www.federalregister.gov, and FirstNet's Third Notice requesting public comment, published on May 5, 2015 on www.federalregister.gov.

Under the concept proposed in the Special Notice subscriber adoption targets would be developed for inclusion in the subsequent RFP.

419. How much usage does FN envisage on the network (and therefore excess capacity)?

Document Reference: C-3 FCC Tab Page 63 Section / Paragraph: 4.4.6.5

Answer:

As noted in the Appendix - Pricing Concepts, as part of the subsequent RFP, FirstNet anticipates creating Public Safety User targets for each state or region that will be informed through the consultation process.

420. How many RFPs will there be and for what scope (do you intend to breakup the requirements into multiple RFPs)? And If so can you provide a breakout?

Document Reference: Special Notice Page 5 Section / Paragraph: 4.2

Answer:

The purpose of the Special Notice is to obtain feedback in order to better understand industry's capabilities, analyze the recommendations and alternative approaches, and determine how to best leverage existing capabilities and best practices in order to meet Public Safety User needs. This would include a determination with regard to number of potential RFPs as well as the "requirements" and/or objectives to be included within the subsequent RFP(s). Therefore, FirstNet is still in the process of determining the best acquisition approach and strategy. FirstNet is seeking feedback and information, to include capability statements, in order to make a determination regarding the best acquisition approach.

421. What is the policy for bearer traffic usage by first responder group?

Document Reference: C-3 FCC Tab Page 63 Section / Paragraph: 4.4.6.5

Answer:

FirstNet is currently developing a QPP framework in conjunction with the FirstNet PSAC to address allocation of network capacity to users. This QPP framework will be used to define the network policies and priorities which will eventually be implemented within the network to control the bearer traffic as part of the local control process. The final configuration of the QPP framework and the roles and responsibilities for implementing this framework within the FirstNet service may be further defined as part of the acquisition process. FirstNet seeks feedback regarding the development of the QPP framework and the implementation options of this framework within the FirstNet services.

422. Do you envision any bearer traffic policy differences for Police, Fire/EMS and if any differences will be implemented if it is a paid department or volunteer?

Document Reference: C-3 FCC Tab Page 63 Section / Paragraph: 4.4.6.5

Answer:

The local bearer traffic policies are expected to be part of the local control aspect of a Public Safety agency using guidelines provided by FirstNet. FirstNet is currently developing a QPP framework in conjunction with the FirstNet PSAC to address allocation of network capacity to users. This QPP framework will be used to define the network policies and priorities which will eventually be implemented within the network to control the bearer traffic as part of the local control process. If there are bearer traffic policy issues between local agencies, this framework can provide guidance to address the recommended allocation of resources for different scenarios. The final configuration of the QPP framework and the roles and responsibilities for implementing this framework within the FirstNet service may be further defined as part of the acquisition process. FirstNet seeks feedback regarding the development of the QPP framework and the implementation options of this framework within the FirstNet services.

423. How do you envision local control for communication resources taking place for both intra jurisdiction and inter-jurisdiction incident responses?

Document Reference: C-9 Use Cases Page 4 Section / Paragraph: 4.4

Answer:

The execution of incident command and control, whether within a jurisdiction or across multiple jurisdictions, needs to be governed by policies put in place by the local agencies. FirstNet foresees a QoS, priority, and preemption framework that enables the incident commander, Communications Leader (COML), emergency operations center, or other authority, to exercise local control over the resources assigned to an incident.

424. What are the core applications envisioned to be used on the FirstNet network by each first responder group?

Document Reference: C-3 FCC Tab Page 72 Section / Paragraph: 4.6.3.3

Answer:

FirstNet is in the midst of consultation and data gathering with states, territories and stakeholders. A component of the data gathering includes specific applications and their usage by the agencies in that state or territory. This data will inform the coverage and capacity objectives in the subsequent RFP. FirstNet foresees applications that leverage the full set of NPSBN services. See Appendix C-8 IOC/FOC Target Timeline for the anticipated roll-out of these applications and services.

425. What additional applications will be secondary to the core applications which will be used on the FirstNet network within 3 years?

Document Reference: C-3 FCC Tab Page 72 Section / Paragraph: 4.6.3.3

Answer:

FirstNet is in the midst of consultation and data gathering with states, territories, and stakeholders. A component of the data gathering includes specific applications and their usage by the agencies in that state or territory. This data will inform the coverage and capacity objectives in the subsequent RFP. FirstNet foresees applications that leverage the full set of NPSBN services. See Appendix C-8 IOC/FOC Target Timeline for the anticipated roll-out of these applications and services.

426. For the network applications envisioned do you have any expected use cases?

Document Reference: C-9 Use Cases Page 3 Section / Paragraph: Table 1

Answer:

The use cases in Appendix C-9 NPSBN Use Case Definitions, are intended to illustrate the types of functions, systems, applications, services, and processes that are expected to be supported by the NPSBN. In the draft of Appendix C-9 NPSBN Use Case Definitions, only a portion of the cases are detailed. The rest are in development and may be provided in the subsequent RFP.

427. What is the expected adoption level for those applications by each first responder group for the first, second and third year (who will be responsible for training and configuring those applications for PS)?

Document Reference: C-5 StdV-2

Answer:

The mix of applications to achieve or exceed those targets is to be proposed by the offeror(s) based upon their projected sales and marketing plans. FirstNet expects that offeror(s) and app developers will develop and roll-out applications which include training materials, job aids, and configuration guidelines. Configuration will depend upon the delivery method of each application. End user training would be at the discretion of the purchasing PSE or Public Safety User.

428. What services will not be allowed on the FirstNet network, besides illegal activity. For example will HD streaming video from fixed camera be part of the FirstNet network?

Document Reference: C-5 StdV-2

Answer:

As with all high bandwidth use services such as HD streaming video from a fixed camera, operational policies may be required to strike a proper balance between the usefulness of the application, the cost to the user, and the impact on Public Safety Users and secondary users under a Covered Leasing Agreement. FirstNet welcomes feedback as part of the response to the Special Notice that addresses these issues.

429. How is dispatching from local PSAPs envisioned?

Document Reference: C-4 SV-1 and StdV-1

Answer:

FirstNet anticipates the existing Public Safety land mobile radio network will be operated in parallel with the FirstNet network and will remain the primary dispatch method for contacting local Public Safety personnel to respond. The local agencies will decide themselves when and whether to transition to FirstNet-provided services for dispatching Public Safety personnel, and they will need to update their local CAD platform, if applicable, to support this transition. FirstNet seeks feedback regarding the schedule for the rollout of MCPTT services and the allocation of responsibilities for the transition of the primary dispatch to be supported by FirstNet, in accordance with the Special Notice.

430. Regarding the 13m users; what is the amount of users expected on the FirstNet network in year 1,2,3,4, and 5? What rate are they anticipated to be loaded at?

Document Reference: Pricing Appendix Page 3 Section / Paragraph: 1.3

Answer:

This information is not available for distribution at this point in time. FirstNet anticipates developing subscriber forecasts through its consultation efforts, which may be released as a part of the subsequent RFP. FirstNet, however, encourages offerors to develop their own internal business models in developing their proposed solutions.

431. How will voice communication between devices or dispatch communication be recorded and stored under the current network architecture proposed?

Document Reference: C-3 FCC Tab Page 44 Section / Paragraph: 4.1.10.1.6

Answer:

The NPSBN will provide the appropriate connectivity to the PSEs, and the PSEs will provide their own recording and logging services.

432. Will FN be placing an equipment order before awarding the contract? Equipment orders are typically placed well in advance of deployment

Document Reference: C-6 QASP Page 20

Answer:

The acquisition approach outlined in the Special Notice does not anticipate FirstNet making any equipment purchases prior to the award of contract(s). It is anticipated that the contractor(s) will obtain the any equipment necessary to implement their proposed solution which should be identified within the proposal.

433. Hardening requirements are not ready as discussed in industry day. Does FN have an idea on the size of the LTE antennas? This impacts the Real Estate and zoning portions of Deployment.

Document Reference: C - SOO Section / Paragraph: C-5

Answer:

FirstNet is looking to the offeror(s) to propose their best solution to this issue.

434. Hardening requirements are not ready as discussed in Industry day. Does FN have an idea on whether the RRU (Remote Radio Units) will be placed on the tower or the ground?

Document Reference: C - SOO Section / Paragraph: C_5

Answer:

FirstNet is looking to the offeror(s) to propose the best solution to this issue.

435. Opportunities for contractors to profit from excess network capacity are explicitly mentioned. What opportunities does FirstNet envision for contractors relative to application and application services on the NPSBN and interfacing to the NPSBN? Are there specific opportunities to profit that have been ruled out for contractors?

Document Reference: C - SOO Section / Paragraph: C-3

Answer:

Subscriber adoption and use of the NPSBN by Public Safety is a key programmatic goal for FirstNet. This includes a robust Application Ecosystem as further detailed in the SOO. FirstNet currently anticipates that revenues from Applications and Application services will also be available to offerors. FirstNet

seeks feedback on additional opportunities that offerors could realize value from and that will contribute to FirstNet's financial sustainability, in accordance with the Special Notice.

436. Does 5g imply a requirement for the contractor to ensure that all applications in the application ecosystem are inter-operable? If so - what data standards will be applied, or is that for the contractor to specify? More generally, we find no reference to data standards at all - is that because none have yet been specified or because the NPSBN is intended to be agnostic as to data standards? If FirstNet does not enforce data standards, what other accommodations are envisioned to enable information exchange? Are there any data formats or industry data interchange practices that are currently in use that FirstNet would discourage solution providers from using?

Document Reference: C - SOO Section / Paragraph: C-5

Answer:

SOO Section C.5 objective 5, Application Ecosystem, stimulates a vibrant developer community with creative apps that are not bound by potentially restrictive data formats. Appendix C-3 Recommended Minimum Technical Requirements to Ensure Nationwide Interoperability for the NPSBN defines interoperability at the network and RAN layers, not the application layer. FirstNet cannot ensure, and does not expect, that all applications will be interoperable. However, the need for application and data interoperability will be key elements of Public Safety User satisfaction going forward.

As such, FirstNet foresees numerous steps should be taken toward application interoperability. Areas to be considered in order to maximize interoperability include: the use of middleware software and access clients capable of mapping data from one application to another; local control of access based upon federated Identity, Credential, and Access Management (ICAM); mutual aid agreements between PSEs on shared application sets; cross training first responders on applications from multiple vendors; consortia of third party developers working independently on interoperability of similar applications; standard APIs and applications/clients for access to key Public Safety repositories and ultimately, universal standards adoption for common data formats. FirstNet seeks feedback, in accordance with the Special Notice, within these areas.

437. Will local entities be able to use their own apps as well as those in the app store? If so, what requirements exist in respect of these? In general, will there be requirements or assessment standards for applications before they are allowed to operate on the NPSBN network (see also #5 for data standards)?

Document Reference: C - SOO Section / Paragraph: C-5

Answer:

FirstNet foresees that Public Safety Users should be able to use the apps they use today. FirstNet anticipates an offeror to propose a solution addressing an Application Ecosystem that allows existing

apps to coexist with FirstNet certified apps. Please see SOO Section C.5 objective 5 Application Ecosystem.

438. Is there a list of existing infrastructure that FirstNet will consider leveraging? If not, please consider a future request for ideas once a list is compiled for those contractors that do not own those assets but may leverage them once known.

Document Reference: C - SOO Section / Paragraph: C-5

Answer:

FirstNet does not anticipate providing information on terms and conditions for use of existing public and private infrastructure and capabilities in the subsequent RFP. As described in the Special Notice, FirstNet expects Category One and Category Two offerors to propose solutions to its stated objectives, including the use of existing infrastructure to the maximum extent economically desirable. Those proposed solutions could incorporate publicly and/or privately owned infrastructure and capabilities, currently or potentially available to the offeror for utilization. In addition, FirstNet may utilize state, local and other infrastructure to expand the network over the initial contracted coverage, if resources are available.

439. These use cases are described as illustrative, but what does that mean? What is the process for fixing them? Will they be specified or will they be looking for contractors to make proposals on each one?

Document Reference: C-9 Use Cases Section / Paragraph: 1

Answer:

The use cases in Appendix C-9 NPSBN Use Case Definitions are intended to illustrate the types of functions, systems, applications, services, and processes that are expected to be supported by the NPSBN. In the draft of Appendix C-9 NPSBN Use Case Definitions, only a portion of the cases are currently detailed. The rest are in development and may be provided in the subsequent RFP. Offerors will not be required to propose a solution for each individual use case, but will be expected to submit a proposal that provides the capability to address the types of situations noted in the use cases - any instructions will be stated in the subsequent RFP. FirstNet welcomes feedback as part of the response to the Special Notice that addresses any issues in the use cases.

440. Is there guidance for what pricing and billing models that would be acceptable and unacceptable? (Item 14 of paragraph 4.8.3 in C-9 Use Cases)

Document Reference: C-9 Use Cases Section / Paragraph: 4.8.3

Answer:

Subscriber adoption and use of the NPSBN by PSEs is a key programmatic objective for FirstNet. FirstNet requests feedback from interested parties as to what mechanisms are available in order to achieve strong adoption and use of the NPSBN by PSEs, including different end user pricing and billing models.

441. Given the delay inherent in satellite communications and special equipment required, what use cases are envisioned for the satellite network?

Document Reference: Special Notice Section / Paragraph: 4.3

Answer:

Offeror(s) should reference FirstNet use cases included in the subsequent RFP that are suitable for satellite solutions. Also, FirstNet seeks feedback as part of the response to the Special Notice that addresses this topic.

442. What latitude will offerors have with pricing models? For instance, could we (as an example) make it free for first responders and cover costs by charging ancillary users? Or (as another example) could we charge everyone a flat rate and simply provide an enhanced service to first responders?

Document Reference: Special Notice Section / Paragraph: 4.5.1

Answer:

Subscriber adoption and use of the NPSBN by PSEs is a key programmatic objective for FirstNet. FirstNet seeks feedback from interested parties as to what mechanisms are available to FirstNet to achieve strong adoption and use of the NPSBN by PSEs, including the types of pricing and promotion plans available specifically to Public Safety Users. FirstNet does not anticipate directly influencing Public Safety User pricing or promotions targeting adoption and usage of the NPSBN, it will be up to the offeror to propose as part of their solution. However, 47 U.S.C. 1428(c) requires that NTIA "… review the fees assessed … on an annual basis, and such fees may only be assessed if approved by the NTIA." The fees "under this section" include network user fees (i.e. the fees charged to public safety entities). Also, see 47 U.S.C. 1428(a)(1).

443. Since the business model is not to be solely government funded and for contractors to profit, e.g. from excess capacity, would FirstNet consider a KPI to track whether there are enough revenue sources and potential to keep FirstNet in business?

Document Reference: C-6 QASP

Answer:

The financial sustainability of FirstNet is required by the Middle Class Tax Relief and Job Creation Act of 2012. The Special Notice presents FirstNet's conceptual model for becoming financially sustainable, that FirstNet seeks feedback on as part of the Special Notice. In addition to up to $6.5 billion in cash, offeror(s) could receive revenue from Public Safety User fees as well as any revenue obtained from using excess network capacity to provide service to non-Public Safety Users.

FirstNet must be financially sustainable at all times, as outlined in Section 1.2 of the Appendix to the Special Notice - Pricing Concepts. This means that a potential offeror's proposed pricing solution must allow FirstNet to maintain cash in excess of obligations for every year throughout the life of a subsequent award.

FirstNet is considering numerous measures by which it can monitor and guarantee that this goal is achieved, including the use of KPIs. However, FirstNet seeks feedback in response to the Special Notice, including this topic.

444. Will FirstNet impose restrictions on how excess network capacity may be used, to whom it may be made available, or under what terms? For instance, must there be public safety/law enforcement relevance or can excess capacity be used for secondary users.

Document Reference: Pricing Appendix Section / Paragraph: 1.3

Answer:

Under the concept presented in the Special Notice, FirstNet would not restrict the use of excess network capacity by offerors beyond commitments made by offerors, as part of their proposed solutions, to meet FirstNet's stated objectives and any other legal obligations.

445. Setting usage targets with disincentive fees in case the targets are not met may encourage higher baseline pricing to deal with the excess risk of the fees. Would FirstNet be open to the inverse approach, used by some of our cloud clients, for example, of setting incentives payable as target user numbers increase?

Document Reference: Pricing Appendix Section / Paragraph: 2.1.2.1

Answer:

FirstNet is looking for this type of feedback as part of the Special Notice, and comments on this topic are welcome. Subscriber adoption and use of the NPSBN by PSEs is a key programmatic objective for FirstNet. FirstNet seeks feedback from interested parties as to what mechanisms are available to FirstNet to achieve strong adoption and use of the NPSBN by PSEs.

446. The illustration Fig.2 seems to indicate that Opt-Out States have responsibility (or ownership) of RAN-only Deployables. Is this correct? In the same Fig. 2 please define Prime Partners.

Document Reference: C-4 SV-1 and StdV-1 Section / Paragraph: 2.1

Answer:

Opt-Out States will be responsible for the deployment and operation of their RAN layer including RAN-only Deployables. FirstNet intended to say "prime contractor" rather than "prime partner." A prime contractor is defined as the entity receiving contract award. FirstNet will correct Appendix C-4 System and Standard Views (SV-1 and StdV-1) to reflect the proper term prior to releasing the subsequent RFP.

447. "The MBMS service shall be supported when the user roams into another network and falls back to 3G". If the 3G network does not support MBMS we 't see how this is going to work

Document Reference: C-5 StdV-2 Section / Paragraph: 6

Answer:

The offeror(s) should propose how equivalent functionality could be leveraged on legacy networks, if possible.

448. Will FirstNet be providing Tier 1 support staff or will the function be outsourced and be a requirement that the responding vendors need to satisfy?

Document Reference: C-7 Operational Architecture Section / Paragraph: A.2.1.2.3

Answer:

FirstNet is seeking feedback on functions listed in Appendix C-7, Operational Architecture Functional Descriptions, to include customer service and support, in accordance with the Special Notice.

449. Is FirstNet requesting the implementation of an email system in their network? If so, for which users?

Document Reference: C-7 Operational Architecture Section / Paragraph: A.7.2.3.3.1

Answer:

FirstNet desires the most cost effective, best value solution in order to achieve its stated objectives and best practices in order to meet PSE needs. Potential offerors should propose solutions to meet FirstNet's objectives which may include the development or offering of value-added applications.

450. Is FirstNet requesting the implementation of an IM system in their network? If so, for which users?

Document Reference: C-7 Operational Architecture Section / Paragraph: A.7.2.3.3.2

Answer:

FirstNet desires the most cost effective, best value solution in order to achieve its stated objectives and best practices in order to meet PSE needs. Potential offerors should propose solutions to meet FirstNet's objectives which may include the development or offering of value-added applications.

451. Who can sign up for FirstNet services in phase 1? Only those who are planned to have B14 service in IOC-2?

Document Reference: C-8 IOC / FOC Section / Paragraph: 4.1

Answer:

FirstNet's deployment of the NPSBN will be dependent upon the successful offeror's proposed solution. FirstNet's current proposed IOC/FOC timeline set forth in Appendix C-8 IOC / FOC Target Timeline envisions immediate access for all subscribers who wish to participate.

452. What is meant with "where FirstNet coverage not available"? There is no B14 coverage in IOC-1, and everyone is on commercial network all the time (so no roaming either). Is that correct?

Document Reference: C-8 IOC / FOC Section / Paragraph: 4.1.2, Item 7e

Answer:

Yes, in Appendix C-8 IOC /FOC Target Timeline, in IOC-1, FirstNet foresees the NPSBN consisting of commercial wireless networks and deployable services until Band 14 is operational.

453. Will offeror have access to, and manage billing and collection of Public Safety Revenue for subscribers in their operating CLA under a category 2 proposal?

Document Reference: Pricing Appendix Section / Paragraph: 1.1

Answer:

Potential offerors interested in Category Two for one or more states would be required to propose a pricing solution identifying information in relation to the proposed capital and operational costs associated with the RAN deployment and operation in that state(s), and offsetting those costs with the offeror's valuation of excess network capacity. The Category One offeror(s) would retain the role of Public Safety User adoption, which would include the management and collection of PSE revenues. In

addition, FirstNet seeks feedback on Appendix C-7 Operational Architecture Functional Descriptions, included in the Special Notice.

454. Will the available network resources that can be used as backhaul and other kinds of transport for the NPSBN from the Opt-In states be available to the bidders before having to finalize bid submissions to FirstNet?

Document Reference: Pricing Appendix Page 4

Answer:

FirstNet does not anticipate providing information on terms and conditions for use of existing public and private infrastructure and capabilities, or a list of existing infrastructure that could be used by offerors, in the subsequent RFP. Under the concept in the Special Notice, FirstNet expects Category One and Category Two offerors to provide solutions to its stated objectives. Those solutions could incorporate publicly and/or privately owned infrastructure and capabilities, currently or potentially available to the offeror for utilization. FirstNet encourages states, potential Category One and Category Two offerors, and other interested parties to begin teaming discussions as soon as possible to identify the potential for using existing infrastructure and capabilities in developing proposed solutions for meeting FirstNet's stated objectives.

455. Will the NPSBN operator be able to derive revenue from the procurement, sale and support of devices in addition to the NPSBN usage revenue?

Document Reference: Pricing Appendix Page 6

Answer:

The collection and use of all revenues related to the use of the NPSBN will be determined and agreed upon with the offeror(s) prior to contract(s) award. As currently envisioned, the prime contractor(s) will propose a fixed payment for the use of the NPSBN and excess network capacity, and the prime contractor(s) will retain the direct revenues derived from users of the network, including revenues derived from devices.

456. How will these assumptions change with adoption levels and/or bandwidth demands by public safety?

Answer:

As noted in the Appendix to the Special Notice - Pricing Concepts, as part of any subsequent RFP, FirstNet anticipates creating public safety usage targets for each state or region that offerors will be required to meet for the entirety of the contract term, and will be enforced with disincentive fees. These targets may include cumulative number of billable connections by Public Safety Users and/or targets for use of the network by Public Safety Users. Under the concept proposed in the Special Notice,

offerors could have access to value derived from Public Safety Users, excess network capacity, government funding, and any other value offerors anticipate in entering a contractual relationship with FirstNet. In the event that actual public safety usage is above public safety usage targets, reducing the amount of available network excess capacity, offerors will still have access to public safety revenues and all revenues from the remaining excess network capacity.

457. Offerors are told they may assume revenue from public safety fees and "excess capacity." How does FirstNet anticipate managing any such revenues to ensure they are used solely for re-investment in the NPSBN?

Answer:

FirstNet requests that offeror(s) propose regular fixed payments to FirstNet to support ongoing program costs, such as costs associated with maintaining, operating, or improving the network. Those fixed payments would be negotiated prior to contract award(s) and would allow FirstNet to become financially sustainable by providing resources to support activities not initially funded in the contract(s) discussed in the Special Notice. Actual revenue collections from Public Safety User fees or from use of excess network capacity, whether higher or lower than initial expectations, would not change the fixed payment to FirstNet or the contractor's obligations under the contract. After meeting the requirements in the contract, the contractor's profits from excess revenues received need not be re-invested in the network.

458. Please clarify how 75% adoption by "agencies" within 3 years (Q-APP-27) is attainable, given that user definitions have not yet been promulgated?

Answer:

Subscriber adoption and use of the NPSBN by PSEs is a key programmatic goal for FirstNet. The definition of what constitutes a PSE is currently subject to FirstNet's first Notice requesting public comment, published on September 24, 2014 on www.federalregister.gov, and FirstNet's Third Notice requesting public comment, published on May 5, 2015 on www.federalregister.gov. FirstNet anticipates a clearly defined list of PSEs eligible to use the network will be available by the time the subsequent RFP is issued. Ongoing consultation with the states is one mechanism FirstNet has to set Public Safety User targets. FirstNet is looking for feedback, as part of the Special Notice, on whether the mechanisms proposed will effectively promote this goal.

459. What are the projected network core capabilities and cloud storage availability at launch?

Answer:

A description of the content for each phase of deployment is included in Appendix C-8 IOC/FOC Target Timelines which includes any information pertaining to projected network core capabilities and cloud storage availability objectives.

460. Please discuss the agency "on-boarding" and on-going training processes. What expenses and responsibilities will be borne by FirstNet, selected partners, and agencies?

Answer:

FirstNet is seeking feedback on functions listed in Appendix C-7, Operational Architecture Functional Descriptions, to include training. Ownership of this function will determine who bears the cost and overall responsibility.

461. Are there limitations to the types of data that can be collected from the user's device?

It is requested that access to the Home Page and its various apps can be governed by the device's location. To enhance security, the solution could govern access based on a host of criteria that enable a more contextual approach. For example, the device's location, type of connection (secure Wi-Fi vs. public Wi-Fi), whether the device has any potentially malicious apps etc. Access to some data could then be dynamic such that, in some cases, no authentication is required, whereas in others, a passcode, biometric or some other quick authentication may be needed.

Document Reference: C-3 FCC Tab Page 11 Section / Paragraph: 1.4.1. 5.

Answer:

The specific details related to types of data which would be available from Public Safety User devices falls within the overall security architecture of the NPSBN. Appendix C-10 FirstNet Cyber Hardness Requirements may include additional information in the subsequent RFP.

462. Although the five categories are important, incident information, , a key geo-based data element, is missing and can that be added?

Document Reference: C-1 Coverage Objective Maps Page 3

Answer:

The five data layers used by FirstNet were only used to establish a baseline with data that was available nationwide. Through consultation, FirstNet encourages states and territories to use any and all data elements they feel will provide the most complete and accurate coverage objective map. 911 call data, incident information, evacuation routes, mass transit routes, etc., are all examples of additional data sets that can be used to update the coverage objective baselines.

463. ...“each individual dataset was normalized across the county” – can description be provided on how this was done and why?

Document Reference: C-1 Coverage Objective Maps Page 3

Answer:

Each dataset was normalized so it contributes equally to the final layer weighting. Reference SOO Appendix C-1 Baseline Coverage Objective Maps for a methodology description.

464. Will the information provided by states during initial data collection, such as calls for service information, be captured on the maps to be provided in the RFP?

Document Reference: C-1 Coverage Objective Maps Page 3

Answer:

Information provided by states during consultation that would assist offerors in creating proposals may be made available to potential offerors, in the subsequent RFP, as appropriate.

465. Rural is defined in the RFP as “a city, town, or incorporated area…”. Based on the April SPOC meetings, doesn’t FirstNet want to extend the rural definition to unincorporated areas as well?

Document Reference: C-8 IOC / FOC Page 0 Section / Paragraph: Definitions, bullet 2

Answer:

FirstNet has sought comment on its preliminary definition of “rural”. Please see FirstNet’s Notice requesting public comments that was published on September 24, 2014 on www.federalregister.gov.

466. The C-8 timeline includes phases for:

a. Local control

b. ICAM

c. App store/ecosystem

d. RAN and core hardening

Is there anywhere in the RFP that defines what is delivered in each phase for the above?

Document Reference: C-8 IOC / FOC

Answer:

A description of the content for each phase for these items in the timeline is included in Appendix C-8 IOC / FOC Target Timelines Section 4, Timeline Details (Phases). Additional information on deliverables may be provided in the subsequent RFP.

467. Regarding the addressable market of "4 million to 13 million users" – please provide the composition of this estimate; e.g., how many are traditional law enforcement/fire/EMS users, how many are full time vs. part time; does this include secondary users operating under a CLA – if so, how many; etc.

Document Reference: Pricing Appendix Page 0 Section / Paragraph: 1.3

Answer:

FirstNet has undertaken high level analysis of the potential addressable market and continues to assess it through consultation with states. However, FirstNet expects offerors responding to any subsequent RFP to develop and rely on their own analyses of addressable market in developing proposed solutions, including the value of excess network capacity. FirstNet does not intend to provide more precise information regarding addressable market size at this time.

468. Although the Category 1 and 2 offer scopes make sense architecturally, by asking bidders to respond to two options, one that is essentially a subset of the other, how can FirstNet inform bidders about how revenue will be split between the nationwide and regional contractors?

Document Reference: Pricing Appendix Page 0 Section / Paragraph: 2.1

Answer:

As further detailed in Section 2.1 of the Appendix to the Special Notice - Pricing Concepts, under the current approach being considered by FirstNet, Category One offerors could receive PSE revenue and commercial revenue derived from use of excess network capacity, while Category Two offerors could receive commercial revenue derived from use of excess network capacity. FirstNet is looking for feedback, as part of the Special Notice, on this topic.

469. The CLA fees included in a National Network (Category 1) can be exponentially reduced depending on states or regions that will be served by Category 2 bides or by states that "opt out". In those cases, please clarify how the CLA for the National Network will be determined?

Document Reference: Pricing Appendix Page 0 Section / Paragraph: 2.1

Answer:

It is anticipated that the Covered Leasing Agreement for the winning Category One offeror would be comprised of all states and Territories (U.S.) except those served by Category Two offerors or states that choose to undertake the responsibility to deploy, maintain, and operate the RAN.

470. What type of contract is being contemplated by FirstNet (e.g. CP, FP, FPI)?

Document Reference: Pricing Appendix Page 0 Section / Paragraph: 1

Answer:

No decision and/or determination regarding contract type(s) has been made yet; the determination will be reflected in the subsequent RFP.

471. We would like to submit our capabilities statement to FirstNet. Do you have a format for how you want this statement structured?

Document Reference: General

Answer:

No, FirstNet is not specifying a format for submission of capabilities statements. Any information and/or parameters specific to the submission of capabilities statements is contained within the Special Notice.

472. Coverage Maps - Are source files available?

Answer:

The source files that were used to create the baseline coverage objective maps can be made available upon request. Please submit any requests to datacollection@firstnet.gov.

473. Devices - What was the method used to determine number of devices projected on the network?

Answer:

FirstNet has not made any assumptions and or determinations with regard to devices; the information pertains to the potential size of the Public Safety Users. The Special Notice's estimate of the potential size of the Public Safety User market drew predominantly on data from the Bureau of Labor Statistics, the Bureau of Economic Analysis, the U.S. Census Bureau, state government websites, and a number of private databases.

Under the concept proposed in the Special Notice subscriber adoption targets may be developed for inclusion in the subsequent RFP.

474. Devices - Will users be able to use their own device or only a FirstNet approved device?

Answer:

FirstNet is planning to support a “bring your own device” (BYOD) option to support users and agencies that want to use their own devices on the network. Only those devices that are approved will be allowed on the network as part of the BYOD process. FirstNet is seeking feedback for details related to the support of this BYOD process and any associated security requirements.

475. Devices - Will users be able to use apps they use today or only FirstNet approved apps?

Answer:

FirstNet envisions that Public Safety Users should be able to use the apps they use today. FirstNet is expecting an offeror(s) to propose an Application Ecosystem that allows existing apps to coexist with FirstNet certified apps as part of their solutions.

476. Devices - Who owns the master list of devices on the network, how will this information be updated?

Answer:

These functions are outlined in Appendix C-7 Operational Architecture Functional Descriptions. FirstNet seeks feedback on ownership of roles as set forth in Appendix C-7 Operational Architecture Functional Descriptions.

477. Bandwidth/Spectrum - How is the available bandwidth being determined?

Answer:

The radio spectrum bandwidth allocated to FirstNet is 10MHz uplink and 10MHz downlink. Offerors will be required to submit a proposed solution for a radio network that provides data bandwidth that meets or exceeds the FirstNet objectives that will be set forth in the SOO of the subsequent RFP.

478. Costs - How are anticipated staff costs being accounted for in regards to network administration and client support?

Answer:

Appendix C-7, Operational Architecture Functional Descriptions, defines tasks that must be accomplished in order to make the NPSBN operational, and it defines who has ownership of each individual task. FirstNet is soliciting feedback as to the most efficient way to allocate responsibility and accountability, and ensure an operational network.

479. Costs - How will billing of services and the invoicing be handled?

Answer:

The billing system is to be proposed as part of a complete B/OSS solution.

480. Costs - How were the anticipated costs for users and devices assumptions derived?

Answer:

FirstNet encourages offerors to develop their internal business models, including cost information, in their proposed solutions for the best solution for Public Safety Users.

481. Final RFP - Will there be a complete comprehensive document, unlike the draft RFP documents that are hard to follow?

Answer:

The current schedule for release of the complete NPSBN RFP is December 2015. It will be posted on the Federal Business Opportunity site, www.fbo.gov.

482. Will Eminent Domain be granted to the private entity that successfully wins FirstNet?

Answer:

FirstNet currently has no plans to exercise eminent domain, or authorize a contractor to do so, in connection with the creation of the NPSBN. However, if the determination that some form of eminent domain is in the best interest of the NPSBN, any terms and conditions would be included in the subsequent RFP.

483. What will be the final evaluation/selection criteria for FirstNet (low price/technically compliant, best value, etc.)?

Document Reference: Special Notice

Answer:

The evaluation criteria will be included in the subsequent RFP in Section M. As required by the Federal Acquisition Regulation (FAR), specifically section 15.305, all factors and significant sub factors that will affect contract award, and their relative importance, will be stated clearly in the solicitation.

If FirstNet makes the determination that the best value acquisition approach is in the best interest of the NPSBN acquisition, this would be considered a tradeoff process. This process permits tradeoffs among cost or price and non-cost factors and allows the Government to accept other than the lowest priced proposal. In this approach, the perceived benefits of the higher priced proposal must merit the additional cost, and the rationale for tradeoffs would be documented appropriately.

484. If a Category 1 bid is offered, will the successful contractor have discretionary nationwide use of the Block 14 spectrum or will its use be limited to NPSBN build-out and CLA licensing of spare capacity on the new infrastructure?

Document Reference: Special Notice Page 5 Section / Paragraph: 4.3.1

Answer:

Under the concept presented in the Special Notice, FirstNet would not restrict the use of excess network capacity by offerors beyond commitments made by offerors, as part of their proposed solutions, to

meet FirstNet's stated objectives and any other legal obligations. FirstNet anticipates, however, that successful offerors would utilize Band 14 to provide service to both Public Safety Users and non-Public Safety Users in areas where Band 14 infrastructure is deployed.

485. Will the successful NPSBN contractor be responsible for funding the on-going support of FirstNet staff and operations? If so, what is the projected funding requirement for that support?

Document Reference: Special Notice Page 7 Section / Paragraph: 4.5

Answer:

FirstNet anticipates offeror(s) propose fixed payments to FirstNet to support ongoing program costs, such as costs associated with maintaining, operating, or improving the network. Those fixed payments would be determined as part of the offeror(s)' proposed solutions with regard to FirstNet's requirement to become financially sustainable.

486. Will the final RFP requirements be segregated/prioritized (mandatory/minimal acceptable technical standards, desirable requirements, etc.)

Document Reference: C - SOO Page 7 Section / Paragraph: C.7

Answer:

Yes, the subsequent RFP will identify any requirements that are considered mandatory with regard to the proposed solution. This would include any technical standards.

487. If a State opts out of FirstNet, does Federal/Tribal land within that State remain a FirstNet responsibility or does coverage transfer to the opt-out State?

Document Reference: C-1 Coverage Objective Maps

Answer:

If a state decides to undertake responsibility to build, operate and maintain the RAN, it must take federal and tribal coverage requirements within the state into consideration when developing their alternative state plan. Therefore, FirstNet would not be responsible for providing RAN coverage to any federal or tribal land within a state that obtains approval to opt out.

488. Coverage testing and verification is key to audit control of the suppliers service level agreement. Is this function going to be an outsourced approach for RF monitoring, coverage prediction calculations, interference prediction, and interference resolution?

Document Reference: C-7 Operational Architecture Page 42 Section / Paragraph: A.6.3.5

Answer:

FirstNet will define testing procedures which may include services to be tested and the related methodology as a part of the subsequent RFP.

489. What is the schedule for FirstNet to release the selection criteria for the RFP?

Answer:

The current schedule for release of an RFP is December 2015. The RFP would include the evaluation criteria in Section M.

490. Once the selection criteria are released will the selected bidders have to meet every single criterion provided by FirstNet?

Answer:

The proposed solutions will be evaluated in accordance with the evaluation criteria included in the subsequent RFP in Section M.

An offeror's proposed solution should be prepared in accordance with and comply with the objectives, requirements, and instructions contained within the subsequent RFP. Yes, each proposal will be evaluated against the evaluation factors and sub factors identified within Section M of the subsequent RFP.

491. What is FirstNet's expectation regarding the amount of video to and from an incident (how much uplink capacity vs. how much downlink capacity)?

Document Reference: C-1 Coverage Objective Maps Page 1

Answer:

FirstNet uplink and downlink incident throughput requirements will depend on the type of incident and relevant applications used by first responders. FirstNet expects this demand to increase as the FirstNet user base and available applications grow. FirstNet is seeking feedback with regard to specific metrics on use cases/traffic profiles through data collection as part of its consultation process.

492. Is the cost for an opt-out state to upgrade the sole responsibility of the opt-out state?

Document Reference: C - SOO Page 5

Answer:

Yes. When a state chooses to take responsibility for deploying, maintaining and operating the RAN, it is also responsible for upgrading that RAN to ensure that its connection to the FirstNet Core remains operational and compliant with FirstNet interface requirements.

493. Will it be the responsibility of the contractor or the local agencies to define, maintain, and execute access rights in both day-to-day and emergency situations?

Document Reference: C-4 SV-1 and StdV-1 Page 9 Section / Paragraph: 4.4.2

Answer:

FirstNet assumes this question refers to Appendix C-4 Systems and Standard Views (SV-1 and StdV-1) Section 4.2.2 versus Section 4.4.2. Therefore, user identities, credentials, and access rights will be the responsibility of the local PSEs in all situations.

494. What is the standard for connectivity to these cloud services? Public Internet and secure (?) connections? Non-public broadband connections?

Document Reference: C-4 SV-1 and StdV-1 Page 10 Section / Paragraph: 4.2.8

Answer:

FirstNet anticipates a mix of private, public, secure private, and dedicated non-public connections between a PSE and cloud services. The choice could be based on many factors including security needs, operational cost, solution architecture, and PSE funding. FirstNet seeks feedback on ways to achieve the objectives, in accordance with the Special Notice.

495. Is the customer support service required to be vendor supplied or could the vender engage with an outsourced solution provider?

Document Reference: C-7 Operational Architecture Page 11 Section / Paragraph: A.2.1.2.1

Answer:

FirstNet is seeking feedback on functions listed in the Operational Architecture, to include customer service and support. FirstNet expects prime offerors to perform all functions in Category One, either directly or through a subcontractor.

496. Is FirstNet aware of the added cost of having the network partner handling devices will add to the cost of each device? Might this therefore discourage public safety agencies from joining the network?

Document Reference: C-7 Operational Architecture Page 13 Section / Paragraph: A.2.1.1.1.3

Answer:

FirstNet maintains the goal of delivering a NPSBN to Public Safety Users at a financially attractive price. FirstNet is also required to remain financially sustainable, while providing the Public Safety User community with the highest quality services and devices.

FirstNet welcomes feedback on the optimal approach to meeting these goals.

497. Is it FirstNet's intent that this 3+ year product plan be developed solely by the successful bidder(s) or in conjunction with FirstNet, Public Safety, and other vendors (for devices and services for example)?

Document Reference: C-7 Operational Architecture Page 23 Section / Paragraph: 3.4.1.2

Answer:

FirstNet is seeking feedback on functions listed in Appendix C-7, Operational Architecture Functional Descriptions. FirstNet expects prime offerors to perform all functions in Category One, either directly or through a subcontractor.

498. Is location to be provided only with the NPSBN coverage or it is a requirement to provide it outside the network coverage area, for instance within a building?

Document Reference: C-7 Operational Architecture Page 26 Section / Paragraph: A.3.4.2.2.4

Answer:

Outdoor and indoor location services should be provided throughout the entire NPSBN coverage area. FirstNet recognizes that, as with all mobile networks, the service level expected indoors is different than the service level expected outdoors and that there are evolving technologies for providing indoor location. FirstNet seeks feedback on this topic in accordance with the Special Notice.

499. Is FirstNet prepared to assist the vendor(s) with site acquisition for non-commercial sites?

Document Reference: C-7 Operational Architecture Page 30 Section / Paragraph: A.3.4.2.6

Answer:

It is FirstNet's expectation that an offeror must have the resources and expertise to identify and obtain permission to utilize commercial and non-commercial sites and be able to comply with all regulations, including environmental, without reliance on FirstNet for assistance.

500. Is FirstNet referring to FCC site licenses in this section? It is my understanding that site licenses are no longer required since the FirstNet license is nationwide. Please explain.

Document Reference: C-7 Operational Architecture Page 30 Section / Paragraph: A.3.4.2.6.1

Answer:

Appendix C-7, Operational Architecture Functional Descriptions Section A.3.4.2.6.1 does not refer to traditional site-by-site licensing, but rather the aspects of complying with all regulatory and other requirements of the nationwide license. Note that although the nationwide license does not require site-by-site licensing, each RAN site must comply with applicable regulations, including but not limited to environmental regulations.

501. Is it the intent of FirstNet that the network vendor/partner(s) for FirstNet will also have to develop a multitude of sales channels for the different local, state, and federal network customers?

Document Reference: C-7 Operational Architecture Page 0 Section / Paragraph: A.6.1

Answer:

Yes. Category One includes development of sales channels to drive user adoption. The Special Notice provides detail on the scope of Category One, which encompass a nationwide approach whereby a contractor would be responsible for the provision of all necessary functions to deploy and operate a nationwide solution in accordance with FirstNet's objectives. This category would allow potential offerors to submit a comprehensive solution for all in-scope functions for 56 states and territories, as set forth in Section 2.1 of the Appendix to the Special Notice - Pricing Concepts. The scope of a Category One approach would include all functions as identified in Special Notice Section 4.2, Definition of the High Level Functions. High level functions are: Core, Applications ecosystem, RAN, CLA, Deployables, Satellite, Devices, Subscriber adoption and Customer lifecycle management.

502. Has FirstNet completed a cost comparison between a data and video-only capable network and a full up, full service network to include multiple types of voice?

Document Reference: C-7 Operational Architecture Page 0 Section / Paragraph: A.7.2.5

Answer:

FirstNet continues to consider the financial and technical implications of multiple operational scenarios. This includes a wide variety of services that may be offered upon completion of the NPSBN.

FirstNet welcomes feedback on the most cost effective network architecture to meet FirstNet's objectives.

503. Will the willing vendor(s)' contract be with FirstNet as an Independent Authority or with NTIA/DOC with FirstNet supervision?

Document Reference: C-8 IOC / FOC

Answer:

This requirement is being issued by the Department of the Interior (DOI)/Interior Business Center (IBC), Acquisition Services Directorate (AQD) on behalf of the on behalf of the U.S. Department of Commerce (DOC), First Responder Network Authority (FirstNet). Therefore, the award will be issued and administered by the DOI, IBC, AQD Contracting Officer.

504. May a small, regional wireless operator submit a narrowly targeted "Capabilities Statement" on or before July 27, 2015 even though both Categories 1 and 2 appear geared toward a much larger entity?

Document Reference: Special Notice Page 3 Section / Paragraph: 4.1.3

Answer:

The purpose of the Special Notice is to obtain feedback in order to better understand industry's capabilities, analyze the recommendations and alternative approaches, and determine how to best leverage existing capabilities and best practices in order to meet Public Safety User needs.

FirstNet does not have any predetermined notion as to the "size" of an entity that may have the capabilities for meeting the objectives for the NPSBN. However, the capabilities statement needs demonstrate the ability of performing the work pertaining to either Category One or Category Two, or a combination thereof. FirstNet also welcomes all feedback pertaining to the acquisition approach and strategy as stated in the Special Notice.

505. Can FirstNet please elaborate on the entities which it considers to be public safety users in its estimate of the market size being between 4 and 13 million users?

Document Reference: Pricing Appendix Section / Paragraph: 1.3

Answer:

FirstNet has undertaken high level analysis of the potential addressable market and continues to assess it through consultation with states. However, FirstNet expects offerors responding to any subsequent RFP to develop and rely on their own analyses of addressable market in developing proposed solutions, including the value of excess network capacity. FirstNet does not intend to provide more precise information regarding addressable market size at this time.

506. Is PTCRB certification required for user equipment? If so, what are the plans/timing for B14 aspects to be included, currently PTCRB does not cover the B14?

Document Reference: C-3 FCC Tab Section / Paragraph: 1.3.3

Answer:

PCS Type Certification Review Board (PTCRB) currently includes Band 14 specifications. PTCRB or equivalent certification may be required. FirstNet expects that industry standard and specialized Public Safety focused testing and certification will be required for the allowance of devices on the NPSBN. These functions are outlined in Appendix C-7 Operational Architecture Functional Descriptions. FirstNet seeks feedback on Appendix C-7 Operational Architecture Functional Descriptions, in accordance with the Special Notice.

507. Considering that VoLTE is becoming more and more mainstream in commercial LTE networks and it will be matured even further over the next 12-18 months, would FirstNet consider including VoLTE within its initial scope since both network gear and user equipment will support this feature on a fairly wide scale by the time FirstNet launches service. This would allow FirstNet to offer a more comprehensive and competitive solution for First Responder organizations.

Document Reference: C-3 FCC Tab Section / Paragraph: 4.1.5.13

Answer:

Yes. Appendix C-8 - IOC / FOC Target Timeline includes information about the expected features and functions to be supported by the FirstNet network and the rollout schedule for them.

508. The Special Notice is focused on obtaining information and proposals by "offerers", which seem to be primarily entities that will be providing all or part of the National Public Safety Broadband Network (NPSBN) to FirstNet in exchange for access to excess spectrum and/or revenues from Covered Leasing Agreements (CLAs). Do entities that wish to provide specific capabilities to whatever form of network is ultimately deployed, such as an ability to access video and data that may be useful to public safety responses, need to submit a proposal in response to the RFP? For example, as noted in AICC's October 27, 2014 Comments in response to FirstNet's RFI regarding partnering opportunities, alarm company participation in the National Public Safety Broadband Network (NPSBN) may facilitate the more efficient transmission of alarm signals, emergency data and video to central stations which can then be relayed to the relevant public safety agencies, while at the same time providing a revenue source for the operational expenses of the NPSBN. Alarm company participation may also allow real time public safety access to, e.g., security camera video. Is the current RFP process the appropriate venue for such proposals, or is that a matter to be handled through another process?

Document Reference: Special Notice Page 2 Section / Paragraph: 3

Answer:

For clarification, the Special Notice is not requesting proposals. The purpose of the Special Notice is to obtain feedback in order to better understand industry's capabilities, analyze the recommendations and alternative approaches, and determine how to best leverage existing capabilities and best practices in order to meet Public Safety needs. Another objective for the FirstNet acquisition is to promote competition and ensure a fair opportunity for all potential offerors. That being said, due to the complexity and all the objectives identified for the NPSBN, in order to achieve the "nationwide" objective it is going to be imperative that potential offerors consider embarking on partnering/teaming opportunities. It is very important to engage in activities for potential partnering/teaming opportunities as soon as possible. This may assist those who may not have the capabilities in meeting all of the objectives on their own in being a teaming partner in a NPSBN solution.

509. Certain potential FirstNet partners are members of an industry that includes numerous members of various sizes. While FirstNet may benefit from participation in the RFP process by individual industry members (especially larger companies), there are certain benefits that may be augmented if there is an avenue for participation by small to mid-size industry members as well. For example, alarm company participation in the National Public Safety Broadband Network (NPSBN) may facilitate the more efficient transmission of alarm signals and emergency data and video, as well as real time access to security camera footage and other data that may allow public safety officials to more effectively manage their response to crime, fires, abductions, civil unrest and other emergencies. The more companies that participate in this access arrangement, the greater the capability made available to public safety. This effort does not seem to fit neatly into the traditional RFP categories discussed in the special notice, but instead would seem to call for the creation of an industry-wide clearinghouse that could administer an access arrangement that would allow participation in the NPSBN by smaller entities that may not otherwise be able to justify direct submission of a "bid" in the RFP process, and that would not otherwise be likely to "win" the bidding process. It is very possible that other industries could benefit from similar widespread, mutually beneficial participation arrangements with FirstNet if a clearinghouse mechanism could be utilized. Will FirstNet's RFP allow for the submission of clearinghouse proposals, over and above the submission of direct partnership proposals by larger industry members? If so, can FirstNet provide guidance on information it would expect to see in such clearinghouse proposals?

Document Reference: Special Notice Page 2 Section / Paragraph: 3

Answer:

FirstNet desires the most cost effective, best value solution in order to achieve its stated objectives and best practices in order to meet PSE needs. Potential offerors should propose solutions to meet FirstNet's objectives. This may include a potential offeror's decision regarding the "type" of proposal submission and possible teaming arrangements. Moreover, any instructions pertaining to proposal submission will be included in a subsequent RFP within Section L, Instructions, Conditions, and Notices to offerors.

510. Under the Proposed Acquisition Approach [Nationwide Proposal (Category 1), and Regional RAN Proposal (Category 2)], how would the core network be acquired in the event that a Regional RAN Proposal (or multiple Regional RAN Proposals) was accepted?

Document Reference: General

Answer:

As noted in the Special Notice, the responsibility for the core network would be provided by a Category One awardee.

511. Can FirstNet give a minimum set of connectivity requirements or guideline for this connectivity? For example is this a dedicated connection or VPN Connection, and what should a typical agency connection look like? Should there be a Firewall, IPS, DMZ, SIP gateway, Agency Web server for guest access, etc.?

Document Reference: C-9 Use Cases Page 5 Section / Paragraph: 4.7.3

Answer:

Functional detail on the FirstNet app store can be found in Appendix C-4 System and Standard Views (SV-1 and StdV-1), Appendix C-7 Operational Architecture Functional Descriptions, Appendix C-8 IOC/FOC Target Timeline, and Appendix C-9 NPSBN Use Case Definitions. Many public sources exist that list providers of app store solutions.

512. Can you define what you mean by "uber" dispatch operator?

Document Reference: C-9 Use Cases Page 23 Section / Paragraph: 4.8.10.2

Answer:

In this use case, the term "uber" dispatcher is used to indicate a user with elevated permissions at the regional command center. This term may be revised in the subsequent RFP for clarity.

513. Is this a new private Internet Protocol WAN link to each PSEN?

Document Reference: C-9 Use Cases Page 34 Section / Paragraph: 4.17.1

Answer:

The private IP network referenced in the use case is the internal network of the PSE. FirstNet foresees that offeror(s) will propose a solution identifying the mechanisms they support for connecting the NPSBN and the PSEN.

514. Will FirstNet manage all, or some BYOD users such as volunteer firemen and Red Cross workers

Document Reference: C-9 Use Cases Page 39 Section / Paragraph: 4.21

Answer:

As indicated in Appendix C-7 Operational Architecture Functional Descriptions and Appendix C-9 NPSBN Use Case Definitions, FirstNet anticipates that administration of BYOD users, along with many other user support functions, will be managed by the PSE, not FirstNet.

515. Can FirstNet provide a detailed data flow for the expected operations.

Document Reference: C-5 StdV-2 Page 11 Section / Paragraph: 8.1

Answer:

The draft RFP follows a SOO-based approach that encourages creative solutions from offeror(s). FirstNet seeks feedback regarding the type of detailed solution architecture for transmission security, in accordance with the Special Notice.

516. Can FirstNet give more details on the APIs for Cloud services and Application Hosting Services?

Document Reference: C-4 SV-1 and StdV-1 Page 13 Section / Paragraph: Table 9

Answer:

FirstNet foresees cloud services and platforms that provide NPSBN users (PSEs, application developers, application hosting providers, etc.) with secure cloud services comparable to what are provided by commercial cloud providers (IaaS, PaaS, SaaS). As such, FirstNet expects, in response to a subsequent RFP, that the offeror(s) will provide necessary APIs so that customers of those cloud services have the ability to fully utilize the capabilities of their services. FirstNet seeks feedback with regard to what APIs may be of value to developers wishing to access the Public Safety marketplace, together with best practices regarding creation, operation, and management of a hosted cloud for Public Safety Applications.

517. Would the Government consider changing the NAICS code to 517210 Wireless Telecommunications Carriers?

Reason: Financial sustainability, which requires financial stability, is a critical success factor for this effort. The 517919 size standard of $32.5 in annual revenue represents a tiny fraction of the GAOs FirstNet cost estimate of $12 billion to $47 billion over its first 10 years. This represents a huge financial risk to contractors and FirstNet viability. If a large business is selected as a prime, in order to meet small business subcontracting goals, the current NAICS code forces them to choose small businesses with this high risk profile. The 517210 NAICS code would expand the small business pool to include companies with up to 1500 employees without excluding any of the 517919 companies. Companies in the 517210 NAICS code offer more capabilities and a lower financial risk while still meeting small business goals. A change to 517210 offers the potential that a small business could submit as a prime and offers large business primes a pool of subcontractors who can share the financial risk and still help them meet small business goals.

Document Reference: Special Notice

Answer:

FAR 19.102, Size Standard, subparagraph (c) states only one classification code shall be used in solicitations, whose definition best describes the principal nature of the product or service being acquired. However, when acquiring products or services that could be classified within more than one code, the size standard which accounts for the greatest percentage of the contract price shall apply.

FirstNet has reviewed the NAICS 517210, Wireless Telecommunications Carriers (except Satellite) and although the proposed solution may include satellite coverage, per the regulations, satellite would not account for the greatest percentage overall.

Therefore, the determination has been made to change the NAICS code from 517919, All Other Telecommunications, to 517210 Wireless Telecommunications Carriers (except Satellite). This change will be reflected in a subsequent RFP.

518. It is the State's opinion that FirstNet's approach is to encourage a broad application "ecosystem" without limiting the number of application developers. Can FirstNet please clarify if they are requesting that the RFP respondents are to offer applications directly or if they are to encourage and develop a broad application ecosystem?

Document Reference: C - SOO Page 3 Section / Paragraph: Section C.5

Answer:

FirstNet considers the most effective way of obtaining the largest selection of applications for the benefit of Public Safety Users at the lowest cost is through an open Application development environment. In response to a subsequent RFP, FirstNet expects offeror(s) to propose a solution demonstrating a broad Application Ecosystem to address SOO Section C.5 Objectives, objective 5 Application Ecosystem. Although the RFP may not require specific applications or require the offerors to identify already developed applications, such applications, if offered, may be incorporated into a resultant contract. With its statement of objectives, however, FirstNet requires an application ecosystem.

519. Item #7 in the statement of objectives refers to a User Service Availability of 99.9%, while Appendix C-6 refers to an availability of 99.99%. Please clarify.

Document Reference: C - SOO Page 0 Section / Paragraph: Section C.5, Appendix C-6

Answer:

As noted in SOO Section C.5 Objectives, objective 7 User Service Availability, the service availability figure "includes the reliability effects of all network components (core, gateways, eNodeBs, and

backhaul) as well as the environmental survivability of the infrastructure and the benefits derived from deployable units."

As of the release of the draft RFP documents, the 99.9% reliability figure set forth in SOO Section C.5 Objectives, objective 7 User Service Availability, is correct, but based upon feedback the government receives in response to the Special Notice and draft RFP documents, the reliability figure set forth in the draft RFP is subject to change.

520. Is just the number of Apps published the best measure of success of the Application ecosystem? Other metrics to consider include the availability of necessary APIs to the community and the number of application downloads by the public safety community.

Document Reference: C-6 QASP Page 0 Section / Paragraph: Appendix C-6: APP-4, APP-7

Answer:

The number of apps published is not the only metric by which the success of the Application Ecosystem may be measured. Additional metrics may include the number of apps downloaded, growth in apps developers, revenue growth for applications, and cyber security.

Also, the evaluation criteria will be included in the subsequent RFP in Section M. As required by the Federal Acquisition Regulation (FAR), specifically section 15.305, all factors and significant sub factors that will affect contract award, and their relative importance, will be stated clearly in the solicitation. FirstNet requests feedback with regard to metrics that may best measure the success of the Applications Ecosystem.

521. What cloud services are envisioned to be offered?

Document Reference: C-6 QASP Page 6 Section / Paragraph: Appendix C-6: APP-12

Answer:

FirstNet foresees cloud services and platforms that provide NPSBN users (PSEs, Application developers, Application hosting providers, etc.) with cloud services comparable to what are provided by commercial cloud providers (Infrastructure-as-a-Service (IaaS), Platform-as-a-Service (PaaS), Software-as-a-Service (SaaS)). FirstNet is seeking feedback from offerors with respect to how they would package, offer, and monetize cloud services for the benefit of Public Safety Users.

522. Is the 1000 data records breached metric on an annual basis?

Document Reference: C-6 QASP Page 7 Section / Paragraph: Appendix C-6: APP-19

Answer:

Yes, the data records breached metric is on an annual basis. However, FirstNet is seeking feedback on the quantity and metrics regarding data breaches, in accordance with the Special Notice.

523. The performance levels refer to 75% and 90% of agencies. What is the total that the percentage refers to?

Document Reference: C-6 QASP Page 7 Section / Paragraph: Appendix C-6: APP-27

Answer:

The percentage refers to the total number of PSEs in the 56 states and territories. FirstNet estimates there are approximately 60,000 PSEs. However, there is data gathering currently underway that may refine this estimate which may be reflected in the subsequent RFP.

524. FOC is said to occur 5 years post contract award. However, the Interim IOCs are all said to occur x number of months following completion of the previous IOC (12, 24, 36, 48). This suggests a much longer timeframe for FOC (126 months). Please clarify.

Document Reference: C-8 IOC / FOC Page 9 Section / Paragraph: Appendix C-8 IOC-FOC

Answer:

The information contained in Appendix C-8, IOC/FOC Target Timeline, table and Figure 1 IOC/FOC Timeline, is correct. The initial sentence in each section stating "this phase will begin x years after the completion of "the previous IOC is incorrect. The information issued in a subsequent RFP will be updated to reflect this correction.

525. Some of the phases of the Hardening/Security appear similar. Will these phases be further defined?

Document Reference: C-8 IOC / FOC Page 0 Section / Paragraph: Appendix C-8

Answer:

Appendix C-10 was intentionally omitted, as stated in the amendment to the Special Notice D15PS00295B posted on FBO on April 27, 2015 at 9:06 pm. Appendix C-10 is still being developed in consultation with states, tribes, territories, public safety stakeholders, and market participants, and may be provided at a later date or in a subsequent RFP.

526. When will the Government release the minimum throughput requirements and standards applicable when users are operating on a satellite network?

Document Reference: General

Answer:

The amended Appendix C-1 Baseline Coverage Objective Maps, posted to www.fbo.gov on May 13, 2015, contains maps that define the minimum persistent coverage areas and areas where deployables may be appropriate. Through the state consultation process, FirstNet is gathering public safety objectives and requirements. FirstNet expects offerors to propose solutions consistent with those objectives and requirements. Additional objectives may be included in the subsequent RFP.

527. [Company name removed] would like to receive national input map data (i.e., the 5 data sources). Is it possible for FirstNet to provide this in table format corresponding to each of the 1x1 mile grids (i.e. showing a unique ID for each grid block and the associated quality(ies) from each of the 5 data sources)? We understand that FirstNet has "equally weighted" each of the data sources. We would like to explore other weighting paradigms and the input map data will allow us to do so.

Document Reference: C-1 Coverage Objective Maps Page 0 Section / Paragraph: Sections 2,3

Answer:

FirstNet can provide a nationwide coverage objective map with the 1x1 mi grid overlay, each uniquely identified. Although FirstNet developed a "grid value" that represented the concentration of data within each grid, this was just used as preliminary information to assist states and territories in identifying coverage needs. Any type of final "grid value" released in the subsequent RFP may be based on state/territory inputs, not FirstNet's original coverage objective baseline algorithm. Therefore, FirstNet does not consider providing the current grid values are beneficial to this process.

528. [Company name removed] would like to receive a national Geographic Information Systems (GIS) shapefile of the 1x1 grids (i.e., an aggregated map of the 56 different state/territory shapefiles). Is it possible for FirstNet to provide this? This shapefile should be attributed with the grid unique IDs as mentioned in Item 1.

Document Reference: C-1 Coverage Objective Maps Page 4 Section / Paragraph: Figure 2

Answer:

FirstNet may provide a nationwide coverage objective map with the 1x1 mi grid overlay, each uniquely identified, as a part of the subsequent RFP.

529. [Company name removed] would like FirstNet to publish a GIS shape file that specifically details what geography is considered rural and what is not. This is critical to allow existing commercial network providers to gauge the risk and costs associated with meeting rural build out milestones. Alternatively, if FirstNet publishes detailed grid block information (Item 1), it could flag rural grid block in that file.

Document Reference: C-1 Coverage Objective Maps Page 4 Section / Paragraph: Appendix C-8, Section 3

Answer:

FirstNet has not yet developed a map identifying rural and non-rural areas. FirstNet offered a preliminary conclusion regarding the definition of "rural" in Section II.B.3 of its first public notice that was published in the Federal Register on September 24, 2014 and is available at https://www.federalregister.gov/articles/2014/09/24/2014-22536/first-responder-network-authority-proposed-interpretations-of-parts-of-the-middle-class-tax-relief. Additional input was received at the FirstNet SPOC meeting in April 2015. Based on all of those inputs, FirstNet intends to issue a final interpretation of the term "rural", at which time FirstNet could develop a corresponding map. Identifying each 1x1 mile grid as either rural or non-rural will be taken under consideration.

530. We understand that FirstNet is using the Coverage Objective Map as a starting point for dialog with states. If state input will drive requirements, at what point in the RFP process will the RAN-offeror be made aware of any additional state requirements so they can adjust their bid accordingly (or choose not to bid at all if the state requests are not realistic)?

Document Reference: C-1 Coverage Objective Maps Page 0

Answer:

Specific state and territory input from the data collection through FirstNet's consultation process pertaining to coverage objectives may be included in the subsequent RFP in order to afford potential offerors an opportunity to make a business decision with regard to participation in the NPSBN acquisition and prepare their proposed solutions accordingly.

531. What defines "FOC" from a coverage standpoint? Is FOC where all red/blue/green grids are covered in a state? Are there circumstances under which any grids will not be covered (e.g., modeled vs actual coverage issues)?

Document Reference: C-1 Coverage Objective Maps Page 0 Section / Paragraph: Appendix C-1, Section 4; Appendix C-8, Section 6

Answer:

As part of FirstNet's consultation and outreach efforts, FirstNet is engaged in continuous dialogue with stakeholders about coverage objectives, including specific coverage requirements, and updated coverage maps may be released as part of the subsequent RFP, that could include the coverage with regard to FOC.

532. Is compliance with specific requirements mapped to particular IOC phases or just to FOC?

Document Reference: C-3 FCC Tab Page 0

Answer:

The IOC targets include expected completion dates for some features and functionalities. Not all requirements are mapped to specific IOC phases. FirstNet is seeking recommendations from the offeror(s) as to the compliance for specific requirements within Appendix C-8 IOC/FOC Target Timeline.

533. For the MVNO concept, is the intent that devices with both B14 and carrier network B2/B4 could start being sold to the public safety community, and public safety would start using the commercial network and then gradually use more of the NPSBN as it is built? Or is the intent a "hard swap" where at some point in the later IOC phases, existing B2/4 devices are swapped for B14 devices that operate on the NPSBN?

Document Reference: C-8 IOC / FOC Page 4 Section / Paragraph: Section 4.1.1.1

Answer:

The intent of the draft RFP documents released with the Special Notice is to show the option of deploying an MVNO solution quickly after contract award to speed initial deployment of the NPSBN. FirstNet expects devices to be capable for usage on the NPSBN as soon as it is available. Per the SOO Section C.5, objective 4 Device Ecosystem, FirstNet expects the device capabilities to evolve as needed to allow for adoption as early as possible while supporting device updates.

534. Under "Hardening and Security" the network hardening elements are broadly defined (e.g., "RAN and core hardening Phase 2"? Will it be the responsibility of the offeror to propose the levels of hardening in each phase that makes sense both operationally and financially?

Document Reference: C-8 IOC / FOC Page 3 Section / Paragraph: Section 2

Answer:

Yes, it may be the responsibility of the offeror to propose the levels of hardening in each phase, both operationally and financially, subject to applicable laws and regulations. FirstNet seeks feedback pertaining to topics within this area in accordance with the Special Notice.

535. Who owns the assets associated with the network, particularly in the case of "shared" assets to capture synergy benefits? What happens with these assets if the contract is not renewed after the baseline period (e.g., first 5 years)?

Document Reference: Pricing Appendix Page 0

Answer:

FirstNet foresees a NPSBN that utilizes existing commercial and federal, state, tribal, and local government infrastructure, as appropriate, along with new construction to speed the deployment of the network and reduce costs. FirstNet does not anticipate owning assets and seeks a solution that maximizes value for Public Safety Users and provides a stable and sustainable NPSBN. However, the subsequent RFP would include any appropriate terms and conditions that would then apply to ownership of assets associated with the deployment and operation of the NPSBN. FirstNet seeks feedback as to the approach that will best meet FirstNet's objectives within this area in accordance with the Special Notice.

536. What does the "option to extend" mean (Special Notice section 5.1)? Is this option at the state level, or at the same level at which the offeror bid (i.e., if multiple states were bid and built, is it all-or-nothing)? Are any terms renegotiated at the time of the option?

Document Reference: Special Notice Page 9 Section / Paragraph: Section 5.1

Answer:

FirstNet's goal is to provide certainty to and maximize value for Public Safety Users by entering long-term contractual relationships. As identified in the Special Notice Section 5.1, Proposed Period of Performance, FirstNet believes a long term contract with a base period from date of award through 2022 and two five-year option periods, with potential performance through 2027 and 2032, respectively, provides the certainty to, and maximum value for, Public Safety Users. The subsequent RFP will likely include an option clause which provides FirstNet with the right to extend performance under the contract past the base period of performance. FirstNet would have the authority to exercise the option and any such exercise would include the terms and conditions of the original contract, as related to either a category one or a category two concept. FirstNet seeks feedback on the period of performance as presented in the Special Notice or other mechanisms to meet FirstNet's goals. Any details regarding the option clause will be provided in the subsequent RFP.

537. Coverage is defined as having a minimum of 768Kbps downlink and 256 Kbps uplink at the cell edge with 50% loading. Please provide definition of 'loading', i.e., is it number of users, throughput, or total cell throughput?

Document Reference: C-1 Coverage Objective Maps Page 1

Answer:

The 50% loading is the total cell throughput. The 768Kbps downlink and 256Kbps uplink per user defines the cell edge. FirstNet seeks feedback regarding this issue.

538. How is the throughput in the grid measured? Are the values indicated for the grid per user throughput? At what loading or number of users?

Document Reference: C-1 Coverage Objective Maps Page 1 Section / Paragraph: Table 1

Answer:

The evaluation criteria will be included in the subsequent RFP in Section M. As required by the Federal Acquisition Regulation (FAR), specifically section 15.305, all factors and significant sub factors that will affect contract award, and their relative importance, will be stated clearly in the solicitation.

539. Subtitle E Sec 6509(3)(A) of the Act preserves State authority over 9-1-1 Services as defined under Subt E Sec 158(d)(2)(1). Does FN expect offerors to provide FirstNet with an end-to-end NG 911 architecture to deliver civilian (i.e., non-NPSBN-user) 9-1-1 services?

Document Reference: C-7 Operational Architecture Page 80 Section / Paragraph: A.7.2.5.2; A.7.2.5.2.1; A.7.2.5.2.1.1 and A.7.2.5.2.2

Answer:

Offerors should propose all necessary functions and architectures needed to support their secondary users that would be provided services on Band 14 under a proposed Covered Leasing Agreement. FirstNet seeks feedback on the draft RFP documents and changes required to clarify this objective.

540. eMBMS is said to be required by FirstNet as part of the overall capability of the network. It is understood that implementation of eMBMS is slated for later in the timeline, but the question still remains as to what spectrum FirstNet would supply to the implementation team for this function? Is the intention of FirstNet to allocate portions of the "D-Block" for this purpose?

Document Reference: C-4 SV-1 and StdV-1 Page 0 Section / Paragraph: Appendix, C4 SV-1 6.1, SV-1 Device-Network;

Appendix, C5 SV-2, 6, StdV-2 Multimedia Broadcast Multi-Cast Services

Answer:

There is a need for Public Safety Users to do multicast or broadcast (e.g., for group communication). FirstNet seeks feedback on the draft RFP documents in accordance with the Special Notice as well as proposed solutions in response to a subsequent RFP.

541. What are the requirements of the ProSe service?

Document Reference: C-4 SV-1 and StdV-1 Page 8 Section / Paragraph: SV-1, 4.1, SV-1 Application Ecosystem

Answer:

The ProSe service shown in Appendix C-4 System and Standard Views SV-1 and StdV-1, Section 4.1, Figure 5 is related to the ProSe function and ProSe Application server network side elements which are part of the ProSe reference architecture. Refer to 3GPP TS 23.303, paragraph 4.2, Figure 4.2-1 for a diagram of the ProSe reference architecture. Appendix C-4 System and Standard Views SV-1 and StdV-1, Section 6, Figure 7 also shows ProSe within the NPSBN Core Network as part of the Device to Network system view. FirstNet is seeking feedback on the implementation of ProSe including these specific portions of ProSe and Group Communication System Enablers (GCSE):

=> ProSe Discovery (in and outside of network coverage)

=> ProSe Direct Communication (one to one and one to many)

=> ProSe UE Relay (relay only and relay plus active communication mode of relaying UE)

=> Coexistence of ProSe with GCSE and MCPTT features

542. It was mentioned at the Industry Day event that vendor communications with State SPOCs is permitted (and even encouraged for smaller businesses looking to partner), even though communications with the FirstNet Federal Team is restricted to Contracting Officers as stated in the RFP? Could you please confirm?

Document Reference: General

Answer:

State SPOCs will not have access to procurement sensitive data and/or information. Therefore, it is not prohibited for offerors to communicate with the state SPOCs at this time. However, any communication with FirstNet should be done through the Contracting Officer.

543. Section 6202(b)(2) of the FCC Tab states that "(1) A core network … (B) Shall be developed, constructed, managed, maintained, and operated taking into account the plans developed in the State, local, and tribal planning and implementation grant program under section 6302(a)."

Certain of the national wireless carriers have made representations to Congress that public safety grade hardening of their networks can not be accomplished for both technical and business reasons. Will dependence on those networks for the national roaming capability disqualify a prime contractor?

Document Reference: General

Answer:

FirstNet's objectives for hardening are covered in the overall system availability objective outlined in Statement of Objectives section C.5.7, User Service Availability. Offerors are encouraged to respond with their solution to accomplish these objectives as well as provide feedback on specific objectives, in accordance with the Special Notice.

544. The requirement for in building coverage is inadequately defined.

Document Reference: C-3 FCC Tab Section / Paragraph: 4.06.01

Answer:

As part of FirstNet's outreach effort, FirstNet is having a dialogue about coverage objectives. Specific in-building coverage requirements will be a part of that discussion and will lead FirstNet to the coverage objectives and updated maps that may be released as part of the RFP. Offerors will ensure in-building penetration losses are accounted for in their design or provide in-building proposed solutions to achieve FirstNet's definition of coverage in areas requiring in-building coverage, consistent with the coverage objective maps, that may be released as a part of the subsequent RFP and financial sustainability objective.

545. Effective coordination between the government's oversight function and the prime contractor's execution function will be critical to meeting program milestones. Given the scale and complexity of the program, does FirstNet anticipate the need to have a third party provide staff augmentation/PMO support?

Document Reference: C - SOO Page 2 Section / Paragraph: 18

Answer:

Yes, FirstNet has a need to have PMO support for the NPSBN acquisition. Therefore, a Request for Quotation (RFQ) in support of Project Management Office (PMO) expansion was sent Friday, June 5, 2015 to all vendors listed on the Mission Oriented Business Integrated Services (MOBIS) Blanket

Purchase Agreement (BPA) via email. FirstNet is using GSA's BPA for Management and Continuous Process Improvement Services under Subpart 8.4 of the Federal Acquisition Regulation. This is one of a few early steps FirstNet is taking to ensure adequate PMO functionality in the run-up to solicitation.

546. Does FirstNet intend to assume the MVNO role and be responsible for the end user? Or, does FirstNet anticipate that the offeror(s) will provide a single MVNO or multiple MVNO services either nationally or by geographic region?

Document Reference: C-8 IOC / FOC Page 4 Section / Paragraph: Target Timeline / 4.1 / 2

Answer:

FirstNet seeks feedback on early service offerings, including non-Band 14 deployment in accordance with SOO Objective 6, including an MVNO solution as specified in Appendix C-8, the IOC/FOC Target Timeline.

547. According to FirstNet documents, FirstNet engaged in initial government-to-government consultation with Tribal authorities, while drafting the scoping document for historic preservation. What other Tribal consultations does FirstNet have planned to enable the historic preservation review of the Nationwide Public Safety Broadband Network (NPSBN)?

Document Reference: Special Notice Page 1 Section / Paragraph: 1/2

Answer:

FirstNet is consulting with federally recognized tribes on a government-to-government basis under the National Environmental Policy Act (NEPA) and National Historic Preservation Act (NHPA) to account for the potential effects of its actions on air, land, or water, as well as districts, sites, buildings, structures, or objects of historical significance, including those of traditional religious and cultural importance to tribes, in accordance with NEPA/NHPA regulations. A letter describing the process has been distributed to all federally recognized tribes; specific dates/engagements have not yet been determined.

548. What is FirstNet's plan to manage deployment for Tribes that may seek to opt-out but are located in opt-in states? How will FirstNet manage Tribes that may seek to opt-in but are located in an opt-out state?

Document Reference: Special Notice Page 1 Section / Paragraph: 1/2

Answer:

Under the Act, only the Governor of each state or territory has the authority to make a decision to undertake the responsibility to build, maintain and operate the RAN of the proposed NPSBN deployment by FirstNet and assume responsibility for building and deploying its own RAN; i.e. opt-in or

opt-out. Therefore, tribes would be included as part of the plan in either the FirstNet NPSBN or an opt-out State approved plan.

549. How does FirstNet plan to engage in government-to-government consultation with all 566 federally recognized Tribes during the projected program period of performance?

Document Reference: Special Notice Page 9 Section / Paragraph: 5.1/1

Answer:

FirstNet is engaging with tribes, in concert with SPOCs, through a host of outreach activities, public notice and comment solicitations, the draft RFP documents feedback process, and its Public Safety Advisory Committee's (PSAC) Tribal Working Group (TWG). The Act expressly requires that consultation with respect to certain network planning topics occur between FirstNet and the single officer or governmental body designated by each SPOC. FirstNet encourages tribes to engage with the SPOC in the state to discuss their coverage and user needs and likewise urges the SPOCs to encourage and incorporate tribal participation in network planning. Similarly, the coverage and other needs of tribes whose public safety response functions are provided by federal agencies are advised to confer with those agencies in assessing the implications of FirstNet in the provision of services on those tribal lands.

Additionally, FirstNet will consult with federally recognized tribes on a government-to-government basis as required under Section 106 of the National Historic Preservation Act (NHPA) to account for the effects of its actions on resources of cultural importance to tribes, in accordance with NHPA, as part of its initiation of the Programmatic Environmental Impact Statement (PEIS) process. To date, this has included sending letters out to the head of each of the 566 federally recognized tribal governments, as well as the Tribal Historic Preservation Officers, contacting tribal officials by telephone and email, and attending regional and national tribal organization meetings and conferences to meet with individual tribal officials. Meetings with individual tribal governments are being planned as well.

550. VoLTE is listed as a minimum services. Does this include the network needs to support VoLTE from day one?

Document Reference: C - SOO Page 3

Answer:

Traditional voice capabilities are expected for NPSBN users from day one. Offerors should identify in their proposed solutions support with regard to voice services in the IOC-1 and further IOCs. Additionally, the NPSBN must enable a set of Mission Critical voice services, which require specific 3GPP releases, as referenced in Appendix C-8 IOC / FOC Target Timeline.

551. What effect will the annual review process by NTIA have on any contractually established pricing and / or vendor's revenue assumptions upon which any such pricing is based?

Document Reference: Special Notice Page 7 Section / Paragraph: Section 4.5

Answer:

Based on the pricing concept proposed in the Special Notice, FirstNet would have offerors propose fixed payments to FirstNet. 47 U.S.C. Section 1428(b) of the Act requires that the fees assessed by FirstNet under 47 U.S.C. Section 1428(a) for each fiscal year shall be sufficient and not exceed the amount necessary, to recoup FirstNet's total expenses in carrying out its duties and responsibilities under the Act for that specific fiscal year. The Act further directs NTIA to review fees assessed under 47 U.S.C. Section 1428(a) on an annual basis. NTIA has informed FirstNet that it will soon release proposed interpretations of its fee review and approval obligations for public comment, which will provide details on the scope and limits of its review and approval process.

552. The RFP appears to give three definitions for coverage area: (1) "Coverage is defined as having a minimum of 768Kbps downlink and 256Kbps uplink at the cell edge with 50% loading." (2) "Only those grid blocks that have more than 50% coverage will be considered acceptable." (3) "[referring to a table in the text] Coverage requirements must meet and exceed the values below for each grid block (note these are average downlink values across the entire grid block)." Which of these are the actual requirement (We believe that an approach using (1) above can be used for each grid block, with suitable adjustments for required bit rate and % coverage availability as defined in Appendix C3, 4.6)?

Document Reference: C-1 Coverage Objective Maps Page 1 Section / Paragraph: Baseline Coverage Requirements

Answer:

Within SOO Appendix C-1 Baseline Coverage Objective Maps, FirstNet is currently defining coverage as:

(1) The cell edge is defined as the boundary of at least 768Kbps downlink and 256Kbps uplink with 50% loading.

(2) A one mile by one mile grid block will be deemed "covered" if more than 50% of the area meets or exceeds the cell edge criteria defined in (1) above.

(3) Please refer to Appendix C-1 for updated language regarding this topic. Through the state and territory consultation process, an updated Public Safety User throughput demand map/profile may be created and provided for the subsequent RFP.

FirstNet seeks further feedback on the definition of coverage, in accordance with the Special Notice.

553. There appears to be an inconsistency between the coverage definition for the downlink of 768 kbps for more than 50% of the grid block and the coverage throughput per square mile. If several samples are taken within a grid block to evaluate data rate, and these samples are used to evaluate both coverage requirements, then any grid that met the definition of coverage would have a downlink rate that was not less than half of 768 kbps or 384 kbps.

An alternative interpretation is that coverage throughput per square mile is a design criterion for minimum capacity. By this definition a serving cell sector coverage area is limited by RF coverage, but also be an additional requirement to allocate throughput on a grid block basis. By example a serving cell sector would allocate 3 Mbps (red grids) of its throughput to each coverage grid. Therefore the serving area of a sector might be limited not by coverage, but by the throughput capacity of the sector. Is this the correct interpretation of coverage throughput per square mile?

Document Reference: C-1 Coverage Objective Maps Page 1 Section / Paragraph: 1. Baseline Coverage Requirements

Answer:

FirstNet is currently defining coverage as:

(1) The cell edge is currently defined as the boundary of at least 768Kbps downlink and 256Kbps uplink with 50% loading.

(2) A one mile by one mile grid block will be deemed "covered" if more than 50% of the area meets or exceeds the cell edge criteria defined in number 1 above.

(3) Please refer to amended Appendix C-1 Baseline Coverage Objective Maps, posted to www.fbo.gov on May 13, 2015, for updated language regarding this topic. Through the state consultation process, an updated Public Safety User throughput demand map/profile may be created and issued with the subsequent RFP. The evaluation criteria will be included in the subsequent RFP in Section M. As required by the Federal Acquisition Regulation (FAR), specifically section 15.305, all factors and significant sub factors that will affect contract award, and their relative importance, will be stated clearly in the solicitation.

FirstNet seeks further feedback on the definition of coverage in accordance with the Special Notice.

554. Outdoor coverage (Bandwidth) requirements have been provided with Min bandwidth for downlink and uplink and minimum downlink for the Red/Blue/Green Grids. No requirement has been provided for the various indoor infrastructure including Airports, Hospitals, Public Safety agencies, correctional facilities. What assumptions on capacity and coverage should be followed?

Document Reference: C-1 Coverage Objective Maps Page 4 Section / Paragraph: 4

Answer:

In response to a subsequent RFP, offerors should demonstrate their proposed solutions meets the requirements set forth in SOO Appendix C-1 Baseline Coverage Objective Maps, and SOO Section C.5, objectives 1 (Build, Deploy, Operate and Maintain the NPSBN), 7 (User Service Availability), and 8 (Service Capacity). Offerors should ensure in-building penetration losses are accounted for in their proposed design or provide in-building proposed solutions to achieve FirstNet's definition of coverage in areas requiring in-building coverage, consistent with the coverage objective maps set forth in SOO Appendix C-1 Baseline Coverage Objective Maps and SOO Section C.5 objective 2 Financial Sustainability.

555. The "Commercial Carriers" interface illustrated is not shown in Figure 1; please clarify whether FirstNet intends to connect to commercial carriers in the absence of an MVNO.

Document Reference: C-4 SV-1 and StdV-1 Page 3 Section / Paragraph: 2.1 Fig 2

Answer:

Figure 1 is intended to represent interfaces in the IOC-1 or launch timeframe, in which multiple MVNO interconnections may be necessary, while the Core and RAN build out is being completed. Figure 2 is specific to state opt-out interconnections with the Core, and the direct interconnection with commercial carriers for roaming purposes is shown. In the IOC-2 timeframe, FirstNet does intend to have direct interconnections with commercial carriers (nationwide), even in the absence of an MVNO.

556. Latency – does the 100ms response apply to any location over any combination of transport? For example, a green grid in Guam over satellite > OTP (Internet) > Core Network > Data Center?

Document Reference: C-6 QASP Page 28 Section / Paragraph: Table 7

Answer:

Yes, the latency goal and objective applies to any combination of transport facilities from any eNodeB location nationwide.

557. Will all provided cloud services have to go through FEDRAMP accreditation?

Document Reference: C-7 Operational Architecture Page 77 Section / Paragraph: A7.2.3.5

Answer:

Cloud services are a potential revenue stream for the offeror(s) and a value-add for some PSEs. FirstNet expects that there are PSEs that will require the added security that comes with FedRAMP (www.fedramp.gov) certification and some PSEs that will neither require, nor be willing to pay a

premium for, FedRAMP certification. FirstNet seeks feedback with regard to benefits, and costs, of providing FedRAMP compliant cloud offerings to PSEs. FirstNet also considers it is in the best interest of all stakeholders to have as diverse a set of services, products, and applications as economically viable for the Public Safety User market.

558. "In this case, the agency has chosen to host their own IT infrastructure and not outsource it to FirstNet." Does FirstNet envision Agency IT Infrastructure outsourcing as a service within the FirstNet portfolio?

Document Reference: C-9 Use Cases Page 5 Section / Paragraph: 4.7.3

Answer:

FirstNet envisions cloud services and platforms that provide NPSBN users (PSEs, application developers, application hosting providers, etc.) with secure cloud services comparable to what are provided by commercial cloud providers (IaaS, PaaS, SaaS). FirstNet welcomes proposals from offerors that provide a vision for what hosted services may be of value, together with best practices regarding creation, operations, and management of a hosted cloud for Public Safety infrastructure.

559. The wireless industry tends to have delayed payment terms with few, if any, having terms of less than net 60 with a trend to net 90 with no progress payments. Is there consideration of including required subcontractor payment terms?

Answer:

FirstNet does not anticipate any requirements affecting payment terms between contractors and subcontractors. However, if the determination is made it is in the best interest of the NPSBN program and/or required based on laws and regulations, the subsequent RFP may include terms and conditions as appropriate.

560. Is consideration being given to an evaluation criteria for support of small/minority or disadvantaged businesses?

Answer:

FirstNet is actively engaged in accepting feedback from all interested parties, and capabilities statements with regard to the proposed concept for Category One and Category Two.

This information will assist in any determination with regards to evaluation criteria and the acquisition approach that will yield the best nationwide comprehensive network solution for public safety, to include any potential consideration pertaining to small businesses.

561. Public safety relies on VPN and Mobile VPN technology today to securely transport responder traffic from mobile devices to application servers. For example, secure CJIS queries are encapsulated to provide confidentiality and integrity of the transported citizen information. With (M)VPN technology, a variety of applications (CAD, tactical video, surveillance video, etc.) are typically encapsulated into a single 'tunnel'. Because LTE technology is expected to greatly expand the number and types of multimedia applications available, either multiple (M)VPN tunnels or multiple application flows encapsulated within a tunnel are needed per user to account for the different types of traffic." Per [Question 158] and [Question 163] above a hierarchical tunnel strategy will need to account for overhead impact to Grade of Service?

Document Reference: C-3 FCC Tab Page 70 Section / Paragraph: 4.7.7

Answer:

FirstNet requires the (M) VPN tunnel to distinguish unique traffic (e.g., voice, data, etc.) in the LTE network, so that the NPSBN can deliver the GoS/QoS for different types of application flows. FirstNet is anticipating offerors will propose creative, standards-based solutions in this area.

562. The government states the longer period of performance would allow potential offerors to recoup over a longer period of time, the significant investments needed to deploy and operate the NPSBN. Will the government amend the RFP to clarify the, "longer period time" the government presumes that the offeror will use to calculate a breakeven point? Is it the base period plus one option period? Is it the base period plus two option periods?

Document Reference: Special Notice Page 9 Section / Paragraph: 5.1

Answer:

Section 5.1 of the Special Notice posits that the overall period of performance should run up to 2032 (base and all option periods if exercised). FirstNet anticipates a base period of performance of award through 2022, with an option to extend through 2027 and a subsequent option to extend through 2032.

FirstNet is seeking feedback as to the suitability of this proposed structure given the investment needed to deploy and operate a NPSBN as well as the proposed resources available, i.e. $6.5 billion in budgetary authority, etc.

563. As Public Safety Demands increases for high-bandwidth applications such as real-time video via surveillance, traffic, drone, body or dash cameras, it is possible that the Public Safety Entities could render the spectrum unusable for secondary users. What provisions has the government made should this occur with an offeror(s) that has entered into a covered leasing agreement with FirstNet?

Document Reference: Pricing Appendix Page 2 Section / Paragraph: 1.1

Answer:

FirstNet expects that offerors would value anticipated public safety revenues under different adoption and usage scenarios, when developing their internal business model and proposed solutions. This is in addition to any value offerors may receive from building, deploying, operating and maintaining a NPSBN. Under any solution, Public Safety Users will have priority and preemption capability on a local basis.

564. The Government states it will enter into a covered leasing agreement with the successful offeror. The spectrum and excess capacity would be of greatest financial value to a carrier. Will the Government amend the RFP to elaborate how a non-carrier entity would realize financial benefit from entering into a covered leasing agreement with FirstNet? Additionally, will the Government amend the RFP to explain how FirstNet intends to enable fair, transparent, and open competition among carrier and non-carrier entities given the unparalleled significance of an offeror's ability to monetize excess capacity in order to realize FirstNet's financial sustainability objectives?

Document Reference: Pricing Appendix Page 4 Section / Paragraph: 1.3

Answer:

The subsequent RFP will not be restrictive with regard to proposed solutions from a carrier or non-carrier entity. The Special Notice presents FirstNet's conceptual model for becoming financially sustainable as required by the Act. FirstNet anticipates proposed solutions will utilize all of its resources, including up to $6.5 billion in budget authority, Public Safety User fees and excess network capacity in order to assist in achieving financial sustainability for FirstNet. However, FirstNet does not require that offerors incorporate all resources when developing a solution. Therefore, it would be up to the offeror (carrier, non-carrier, and/or a combination thereof) to propose the solution. This would include the offeror's ability to monetize excess capacity, as well as other resources afforded to all potential offerors, in order to demonstrate FirstNet sustainability in their proposed solution.

565. Will FirstNet or the private partner hold the contract with the public safety entities? What provisions are being made to ensure efficient contracting with FirstNet or its partners? For example, will the private partner be required to establish state contracting vehicles for all of FirstNet's products and services?

Document Reference: Special Notice Page 7

Answer:

FirstNet foresees that the contractor(s) will hold the contract with public safety entities. Any agreements outside the NPSBN will be the responsibility of the contractor(s) and their partners.

566. Please explain what the Red Grid (3.0 Mbps), Blue Grid (0.6 Mbps) and Green Grid (0.1 Mbps) throughput requirements represent? Are these per user throughput levels, aggregate?

Document Reference: C-1 Coverage Objective Maps

Answer:

Please refer to SOO Appendix C-1 Baseline Coverage Objective Maps for updated language regarding this topic. Through the state consultation process an updated Public Safety User throughput demand map/profile may be created and provided for the subsequent RFP. A detailed explanation of the capacity per square may also be provided. Through the Special Notice and draft RFP documents, FirstNet seeks further feedback and comments on the definition of coverage.

567. Recommendation to provide additional details and clarification regarding various required services per IOC phase. Examples include but are not limited to the following:

a) 4.1.1.5 High Power User Equipment (UE) support: What is meant by "support"?

b) 4.1.2.1 COTS non-Band 14 devices available: Caution that the purchase of non-Band 14 devices will be a lost investment since they are not usable on the future Band 14 network.

c) 4.1.2.5.b FirstNet application store for public safety applications (mobile, server and desktop): Additional details is required to best frame the app store requirement.

d) 4.1.2.5.j Support for Over the Top (OTT) LTE Push-to-Talk (PTT) interoperability with LMR application(s): What is meant by "support"?

Document Reference: C-8 IOC / FOC

Answer:

a. FirstNet is expecting the RAN design will support High-Power UEs. FirstNet seeks further feedback in this area.

b. FirstNet seeks additional feedback in this area.

c. FirstNet seeds feedback on the feasibility of a FirstNet apps store or leveraging existing apps stores.

d. FirstNet expects this functionality to be a key capability of the NPSBN. FirstNet seeks additional feedback on solutions to meet this need.

568. Regarding the Category One, Nationwide Core Radio Access Network and Subscriber for All States:

1. Is the expectation that that Category One partner would integrate all required high level functions (Core, Applications ecosystem, RAN, Covered Lease Agreement, Deployables, Satellite, Devices, Subscriber adoption, Customer lifecycle management) into their respective proposals?

2. Since many of the high level functions could also be acquired from individual providers, many of which their core business is not as a commercial cellular carrier but who act as service/product providers to commercial carriers, and from who their services could be procured independently and potentially at less cost, is there consideration from FirstNet to form partnerships with the providers of these specialized services?

3. How would a Category Two partner interested in serving one or more states or regions, interact with a Category One national partner? What business relationship would be required between these two partnership structures? How does FirstNet propose to manage the boundaries between these partners?

4. There are potentially multiple partial state, single state and multiple state or regional partners that would add value to the business model, and who should be encouraged to participate. Therefore, the relationship between a Category One and Category Two partners needs to be mutually beneficial.

5. Would FirstNet consider partial State partners, such as rural telcos, utilities, tribal or other independent partners not interested in serving a full State geography? (#6 below)

6. Would FirstNet consider partnership options other than Category One and Category Two approaches?

Document Reference: Special Notice Page 42130 Section / Paragraph: Section 4.3

Answer:

1. Yes, the FirstNet expectation is that a Category One partner would integrate all required high level functions (Core, Applications ecosystem, RAN, Covered Lease Agreement, Deployables, Satellite, Devices, Subscriber adoption, Customer lifecycle management) into their respective solutions.

2. FirstNet expects Prime offerors to provide all functions in Category One, either through direct services, or potential other avenues, to include subcontracting or other agreements with providers of those services the Prime itself cannot perform.

3. It is not in the purview of FirstNet to dictate those relationships directly; however, companies wishing to be named as potential teaming participants may contact the Contracting Officer and indicate their desire to be added to FirstNet's teaming list. Category One offerors should expect to manage those relationships or establish them where they do not currently exist. Further information regarding the necessary interactions between Category One and Category Two contractors may be provided in the subsequent RFP.

4. FirstNet understands that relationships should be mutually beneficial and support the best solutions for Public Safety Users.

5. The Special Notice states that Category Two "would allow potential offerors to submit an offer for one or more State RANs." These proposed solutions may be led by a single firm or a team. FirstNet is seeking feedback on the Special Notice and draft RFP documents, and encourages respondents to address potential other avenues to a nationwide comprehensive network solution if respondents believe alternatives exist to the proposed models.

6. See above (#5).

569. The data files supplied to States do not have any detail. They are just points defined by latitude and longitude. Without the detailed information (name and nature of the high risk/interest site) we cannot validate and verify to accuracy of the data and therefore cannot corroborate that the requirements are accurate or adequate. Also, what were the data sources for the information and where can we get the source files?

Document Reference: C-1 Coverage Objective Maps Page 2 Section / Paragraph: 3.2

Answer:

FirstNet anticipates posting the source data files (used to create the coverage objective maps set forth in amended Appendix C-1 and posted on www.fbo.gov on May 13, 2015) no later than the release of the RFP.

570. The description of the grid characterization process is too vague and as described is not replicable or measurable. As a result it cannot be used by the States to cross check or by vendors to be able to track performance. Please supply more detail with the actual data sets (not the accumulated multi-source version) the actual values used for normalization and the entire process with examples.

Document Reference: C-1 Coverage Objective Maps Page 3 Section / Paragraph: 4

Answer:

FirstNet can provide a nationwide coverage objective map with the 1x1 mi grid overlay, each uniquely identified. However, FirstNet may update the information throughout the acquisition process.

Although FirstNet developed a "grid value" that represented the concentration of data within each grid, this was used as preliminary information to assist states and territories in identifying coverage needs. Any type of final "grid value" released in the subsequent RFP will be based on state/territory inputs, not FirstNet's original coverage objective baseline algorithm. Therefore, FirstNet does not consider sharing current grid values is beneficial to this process.

571. What are Individually Liable Accounts?

Document Reference: C-7 Operational Architecture Page 17 Section / Paragraph: A.2.1.6

Answer:

An individually liable account is a billing group configuration where each of the participants in the group receives and is responsible for its own portion of the monthly invoice. There are many different variations of such accounts.

572. Please describe a circumstance in which an "individually liable account" would be created and how it would differ from accounts that are not in this category.

Document Reference: C-7 Operational Architecture Page 17 Section / Paragraph: A.2.1.6.2

Answer:

One possible example of when an individually liable account could be used is for an all-volunteer fire department that wants to deploy FirstNet Band 14 devices to its members in exchange for members covering the monthly fees. In this model, the member does not need a personal device and a "work" device to support their community. In a typical business account hierarchy, all usage charges accrue to a single invoice with, most commonly, a single billing address and payer.

573. Would cloud services provided be subject to processing or review and authorization under FedRamp? B. Is the FirstNet Cloud Platform compliant with FBI CJIS policy for application that touch FBI data sources??

Document Reference: C-7 Operational Architecture Page 24 Section / Paragraph: A.3.4.2.9.3

Answer:

A) Cloud services are a potential revenue stream for the offeror(s) and a value-add for some PSEs. FirstNet expects that there are PSEs that will require the added security that comes with FedRAMP certification and some PSEs that will not require FedRAMP certification. FirstNet seeks feedback on the benefits, and costs, of providing FedRAMP compliant cloud offerings to PSEs. FirstNet also considers it is in the best interest of all stakeholders to have as diverse a set of services, products, and applications as economically viable for the Public Safety market.

B) FirstNet expects that an offeror proposing to offer cloud services would also address whether its platform can support security and interfaces that allow Criminal Justice Information System (CJIS) integration. An application that accesses FBI data sources must be compliant to the FBI CJIS Security Policy (http://www.fbi.gov/about-us/cjis/cjis-security-policy-resource-center/view).

574. Will ITIL certification be required for contractor(s) providing FirstNet O&M? B. If yes, which certifications will be required? C. To what level of contractor personnel will such certifications be required?

Document Reference: C-7 Operational Architecture Page 40 Section / Paragraph: A.3.8.2

Answer:

FirstNet does not anticipate requiring Information Technology Infrastructure Library (ITIL) certification for contractors. FirstNet anticipates requiring that any use of ITIL be done by individuals with the proper level of experience and expertise to ensure that it is utilized correctly. Comparable frameworks may be used as well.

575. Why are the proposed FirstNet data rates (e.g.: 3Mbs/.5Mbs/.1Mbs) so far below nation standards and current carrier service levels?

Answer:

Please refer to SOO Appendix C-1 Baseline Coverage Objective Maps for updated language regarding this topic. Through the state consultation process an updated Public Safety User throughput demand map/profile may be created and provided in the subsequent RFP.

FirstNet seeks further feedback and comments on the definition of coverage, in accordance with the Special Notice.

576. How are NIMS and incident command requirements being addressed in the proposed service offering?

Answer:

FirstNet is referencing NIMS ICS as a framework used by Public Safety for managing different types of incidents. Support for incident management is being addressed through many of FirstNet's key objectives, including SOO Section C.5 objectives 1 (Build, Deploy, Operate and Maintain the NPSBN), 4 (Device Ecosystem), 5 (Application Ecosystem), 7 (User Service Availability), 8 (Service Capacity), 9 (Cyber Security), and 10 (Priority Services).

577. What are the capabilities of the GIS software tool used to update the state wide coverage maps?

Answer:

FirstNet does not have a preferred or recommended geographic information system (GIS) software solution; however, FirstNet currently uses ArcGIS. Capabilities can be found at www.esri.com.

578. How will network speeds be defined relative to FCC broadband definitions? Red/Blue/Green grids as demonstrated do not appear to provide broadband level coverage at any location, either with the old 4 Mbps standard, or the current 25 Mbps definition. Given the likelihood of large amounts of data coming from user equipment, does FirstNet anticipate their speed requirements be symmetrical, or even asymmetrical up (opposite of typical consumer use)?

Answer:

Please refer to SOO Appendix C-1 Baseline Coverage Objective Maps for updated language regarding this topic. Through the state consultation process an updated Public Safety User throughput demand map/profile may be created and provided for the subsequent RFP.

FirstNet seeks further feedback and comments on the definition of coverage, in accordance with the Special Notice.

579. How do coverage projections in the draft RFP relate to FCC criteria for substantial deployment, particularly in rural locations?

Answer:

The FCC has not established build out milestones for the FirstNet spectrum license, with regard to substantial deployment within rural locations. However, in the Special Notice, FirstNet has preliminarily identified substantial rural coverage milestones that offerors would need to meet. FirstNet seeks feedback regarding this topic, in the Special Notice.

The draft RFP documents contain coverage objective maps, which provide a baseline of where coverage is expected to be needed in each State based on objective nationwide criteria. These maps are intended to capture PSEs' coverage requests as a starting point to be validated and updated through the consultation process. These coverage objective maps are not projections of actual coverage.

Section 1426(b)(3) of the Act requires "deployment phases with substantial rural coverage milestones as part of each phase of the construction and deployment of the network. To the maximum extent economically desirable, such proposals shall include partnerships with existing commercial mobile providers to utilize cost-effective opportunities to speed deployment in rural areas." The coverage objective maps provided in the draft RFP documents do not represent deployment phases.

580. Is it desired that components of the Applications Ecosystem are also included in deployables that contain LTE cores to maintain full capability in disconnected mode? If so, is there guidance as to which components should be included and to what level?

Document Reference: C-4 SV-1 and StdV-1 Section / Paragraph: 4

Answer:

FirstNet foresees that there will be a range of types of deployables that provide capabilities for different situations. For deployables that include a Core functionality, FirstNet anticipates offeror's proposals, in response to the subsequent RFP, will identify solutions pertaining to application capabilities that are cost-effectively and that minimize the operational impact to Public Safety Users.

581. How will FirstNet incentivize a contractor/offeror to offer true, and sustainable, speeds greater than this?

Document Reference: C-1 Coverage Objective Maps Page 1

Answer:

FirstNet desires a robust, high performance network service that provides Public Safety Users with the bandwidth, QoS, and latency necessary to support their mission requirements. FirstNet is seeking feedback from offerors discussing how they would measure and document where the service they provide meets or exceeds FirstNet's required minimum performance specifications, and what incentives FirstNet should offer to encourage contractors to meet or exceed these performance specifications.

582. Is FirstNet looking for speeds greater than this?

Document Reference: C-1 Coverage Objective Maps Page 1

Answer:

Please refer to SOO Appendix C-1 Baseline Coverage Objective Maps for updated language regarding this topic. Through the state consultation process an updated Public Safety User throughput demand map/profile may be created and provided for the subsequent RFP. FirstNet seeks further feedback and comments on the definition of coverage.

583. How will FirstNet ensure that, while each gird block has more than 50% coverage, a "dead spot" does not develop in adjacent grid blocks?

Document Reference: C-1 Coverage Objective Maps Page 1

Answer:

The evaluation criteria will be included in the subsequent RFP in Section M. As required by the Federal Acquisition Regulation (FAR), specifically section 15.305, all factors and significant sub factors that will affect contract award, and their relative importance, will be stated clearly in the solicitation.

584. What are corrective actions will be implemented if a contractor/offeror does not meet "targeted" timelines?

Document Reference: C-8 IOC / FOC Page 6 Section / Paragraph: 4.2

Answer:

If a contractor does not meet the subsequent contract's terms and conditions, including the "targeted" timelines or any other obligations, FirstNet would determine the appropriate course of action in accordance with the contract's terms and conditions and applicable laws and regulations. Appropriate courses of action may include applying disincentives for non-performance if identified in the quality assurance surveillance plan or issuing show case or cure notices.

585. What is the process, in detail, of this stop-go phased roll-out?

Document Reference: C-8 IOC / FOC Page 7 Section / Paragraph: 4.3

Answer:

FirstNet seeks comment on how to launch its services and systems to allow for public safety usage as quickly as possible while achieving financial sustainability, for FirstNet, as soon as possible. This includes building, deploying, and operating the NPSBN utilizing the FirstNet Band 14 spectrum.

The RFP IOC/FOC Target Timeline milestones are intended to be a growing or additive evolution of the FirstNet NPSBN and services offering. FirstNet considers this a phased approach where each IOC is reached and becomes the baseline for the next IOC, offering initial services in a model similar to a MVNO which is then is evolved to FOC and beyond.

586. How will the nationwide roll-out of each phase be affected if a problem arises in a single State, but goes to plan in the rest of the States and Territories?

Document Reference: C-8 IOC / FOC Page 7 Section / Paragraph: 4.3

Answer:

Phased deployment plans will be provided as part of each offeror(s) proposal. FirstNet expects that potential offerors would provide a robust deployment plan, to potentially include a risk mitigation plan

that would permit continued construction when certain sites become unavailable within the timeline originally projected.

587. Will a local Public Safety Entity be required to purchase the local control functionality or is it State based?

Document Reference: C-9 Use Cases Page 14

Answer:

Local control is one of the key value-adds required by PSEs. FirstNet is seeking feedback on how to best provide local control to a PSE for management of its users, devices, services, and Applications. FirstNet expects offeror(s) to balance the costs of providing services to PSEs with the goal of competitive pricing. Whether this type of cost is covered in the base price of a service plan or some other charging method is a part of what FirstNet would expect to see in an offeror's proposed solution.

588. What is the billing process for a Public Safety Entity to utilize the local control functionality and who will be paid?

Document Reference: C-9 Use Cases Page 14

Answer:

User fees are a key component of a sustainable FirstNet business model. FirstNet seeks for the recovery of costs of capabilities such as local control.

589. How will FirstNet determine which Public Safety Entity to bill in a multi-agency response with regards to local control as a service?

Document Reference: C-9 Use Cases Page 14

Answer:

Should an offeror propose local control as a service, FirstNet would expect the offeror to propose how the service might be billed. Regardless of charging model, FirstNet is not prescriptive with respect to how localities, states, or Tribal areas may share costs during mutual aid situations. FirstNet seeks feedback regarding desired capabilities to support cost sharing and potential charging models.

590. How is 50% coverage defined for a given square mile grid? Are multiple tests assumed for each square mile grid? If 100 tests were performed per square mile grid, would 50% coverage be met if 51 of the 100 tests met the 768Kbps DL and 256Kbps UL with 50% load and simultaneously met the average data rate for the color-coding of the grid under test?

Document Reference: C-1 Coverage Objective Maps Page 1 Section / Paragraph: Para 2

Answer:

Currently, for initial evaluation and assessment purposes, the assumption is a one mile by one mile grid block will be deemed "covered" (coverage objectives met) if more than 50% of the area meets the definition of coverage based on coverage prediction maps provided from the offeror. However, the evaluation criteria will be included in the subsequent RFP in Section M. As required by the Federal Acquisition Regulation (FAR), specifically section 15.305, all factors and significant sub factors that will affect contract award, and their relative importance, will be stated clearly in the solicitation.

591. Assuming FirstNet requires drive testing for coverage validation, will FirstNet require coverage testing for specific applications such as the services and systems listed in 4.3.2 and 4.3.3, namely: VoLTE, video, multi-cast and 3GPP ProSe.

Document Reference: C-8 IOC / FOC Page 7 Section / Paragraph: 4.3.2

Answer:

FirstNet's Test Strategy document is still being determined and documented. However, it will define testing procedures which will include services to be tested and the related methodology as a part of the subsequent RFP.

592. Performance standard is increasing number of applications published to the store, yet metric is those applications with at least 5% unique download adoption. Please clarify which goal applies

Document Reference: C-6 QASP Page 5 Section / Paragraph: Table 2

Answer:

The performance standard may be revised in the subsequent RFP to align it with the metric. FirstNet considers the actual download, purchase, and use of Applications, as noted by the metric, may be a significant indicator of success for the Applications store than raw numbers of published Applications.

593. 300 Mbps DL and UL at 70% loading does not agree with the coverage/throughput requirements listed in C-1 Coverage Maps. Please clarify.

Document Reference: C-6 QASP Page 14 Section / Paragraph: Table 2

Answer:

Q-RC-19, in Appendix C-6 Quality Assurance Surveillance Plan, is a fixed Core network performance metric and not a RAN design metric as noted in SOO Appendix C-1 Baseline Coverage Objectives Maps.

594. Can detailed references be given for where the FEMA use cases (SAFECOM, NPSTC, PSAC) are defined in detail?

Document Reference: C-9 Use Cases

Answer:

The following are reference documents that contain Public Safety use cases. They can be found at the links listed below.

1. The SAFECOM Program, "Public Safety Statement of Requirements for Communications and Interoperability", Volume I, Version 1.2, October 2006.
http://www.pscr.gov/outreach/archive/safecom_archive/ps_sor/reqs/SoR1_v1.2_10182006.pdf

2. National Public Safety Telecommunications Council (NPSTC), "Use Cases & Requirements for Public Safety Multimedia Emergency Services (MMES)", Rev C, November 2012.
http://www.npstc.org/download.jsp?tableId=37 & column=217 & id=2354&file=Use_Cases_Rqmts_PS_MMES_Report_120531.doc

3. Public Safety Advisory Committee (PSAC), "Use Cases for Interfaces, Applications, and Capabilities for the Nationwide Public Safety Broadband Network", July 21, 2014.
http://www.firstnet.gov/sites/default/files/PSAC%20Use%20Cases%20Report.pdf

595. Does category 1 subsume all of category 2? Does FirstNet intend to entertain bids in both categories 1&2? Can bidders make offers in both categories?

Document Reference: Special Notice Page 5

Answer:

Yes, Category One contains all functionality, whereas Category Two contains RAN and CLAs as identified in Section 4.3, FirstNet's Proposed Approaches – Prior to State RAN Decision Process. FirstNet's proposed acquisition approach considers both Nationwide Proposals (Category One) and Regional RAN Proposals (Category Two), the latter of which could be integrated into a nationwide solution. Under the Special Notice model, FirstNet seeks feedback with regard to Category One, Category Two, or a combination thereof.

596. FirstNet calls out for compliance to NIST cyber security standards. However, given that the NPSBN will include law enforcement traffic, which may have to have to maintain CJIS compliance, how does FirstNet envision the relationship between the NIST standards and CJIS on the NPSBN? Will NPSBN have to be CJIS compliant; or will there be separated domains and if so, what rules will be in place for exchanging data between those domains? How will exchanging data with CJIS compliant systems affect cloud solutions? What about BYOD UE envisioned in Use Case para 4.21?

Document Reference: C - SOO Section / Paragraph: C-4

Answer:

FirstNet anticipates leveraging existing system specific compliance requirements in concert with current NIST guidance and industry best practices to ensure end to end security. FirstNet seeks feedback on security objectives for the NPSBN. Detailed security requirements will be included in Appendix C-10, FirstNet Cyber Hardness Requirements.

597. Item 5: What operating systems will need to be supported (e.g., iOS, Android, Windows Mobile, etc.)?

What type of mobile applications will be developed?

• B2E/B2C or both?

• Mobile web/hybrid/native apps?

What skillsets do the staff developers have?

• Web development (HTML, JavaScript, CSS)?

• Windows development (C#)?

• Native development (Swift for iOS, Java for Android, etc.)?

• Other?

What type of enterprise back-end systems will the mobile applications need to integrate with?

Can you clarify what core services and application delivery platform are expected in 5g by providing examples?

What data and information exchange standards will be enforced for interoperability?

Document Reference: C - SOO Section / Paragraph: C-5

Answer:

SOO Section C.5 Objectives, objective 5 presents FirstNet's objectives for a robust Applications Ecosystem in which third parties would be expected to develop and support Applications of value to PSEs. FirstNet is not planning to develop Applications or create a team of staff developers.

Decisions regarding operating systems, types of Applications, whether to develop web/native/hybrid Applications, programming and markup languages, developer skills, and back end systems with which to integrate would be a part of the offerors' proposed solution.

FirstNet cannot ensure, and does not expect, that all Applications are interoperable. SOO Section C.5 objective 5 Application Ecosystem that stimulates a vibrant developer community implies creative Applications that are not bound by potentially restrictive data formats. Appendix C-3 Recommended Minimum Technical Requirements to Ensure Nationwide Interoperability for the NPSBN defines

interoperability at the network and RAN layers, not the Application layer. However, the need for Application and data interoperability will be key elements of Public Safety User satisfaction going forward.

FirstNet seeks feedback on solutions for these issues, in accordance with the Special Notice.

598. Figs. 3 and 4 show a mix of functions and products. Since this seems ambiguous what is the meaning of the QoS 'box'?

Document Reference: C-4 SV-1 and StdV-1 Section / Paragraph: 3.1

Answer:

The QoS box in Figures 3 and 4 of Appendix C-4 System and Standard Views (SV-1 and StdV-1) represent a QoS function and not specific network elements.

599. Fig.6 shows mVPN going to FN's cloud. Is FN's intent to own a MVPN gateway? Are all the logical links bi-directional?

Document Reference: C-4 SV-1 and StdV-1 Section / Paragraph: 5.1

Answer:

FirstNet's intent is not to be prescriptive in how the logical interfaces displayed are implemented. FirstNet solicits feedback on how to create such interfaces while maintaining the implied security objectives of each PSE interface. The interface may be bi-directional, depending upon the design of an offeror's proposed solution for implementation.

600. If a common MVPN solution is sought what is the meaning of "compatible mVPN clients"?

Document Reference: C-4 SV-1 and StdV-1 Section / Paragraph: 5.2.2

Answer:

Table 11 refers to secure communications between a user device and the PSE. FirstNet's intent is not to be prescriptive toward the PSE as to which Mobile Virtual Private Network (MVPN) solution is required. FirstNet is merely stating that the solution utilized between the device and PSE must be compatible. The intent is not to imply that a single, universal MVPN solution is required. FirstNet seeks feedback regarding the use of MVPNs, in accordance with the Special Notice.

601. Please clarify the meaning of 'true location' .

Document Reference: C-7 Operational Architecture Section / Paragraph: A.3.4.2.2.4

Answer:

The description for the operational architecture function will be revised in the subsequent RFP to remove the word "true."

602. Is this requesting CMAS support for the NPSBN?

Document Reference: C-7 Operational Architecture Section / Paragraph: A.7.2.3.2

Answer:

Yes. See Appendix C-8 IOC/FOC Target Timeline for the incremental levels of CMAS support that are expected in IOCs 1-3.

603. Appendix C1 Coverage Shape files posted FOB.gov on Apr 27, 2015, Maryland directory appears to be missing main FirstNet_Coverage_Objective_Baseline_Maryland.shp" file. Instead there is a "FirstNet_Coverage_Objective_Baseline_Maryland.sbn" that appears to be corrupt if changed to .shp file extension. Can the Maryland Shape files be reposted with appropriate shape files?

Document Reference: C-1 Coverage Objective Maps

Answer:

The .shp file for Maryland has been posted on www.FBO.gov.

604. How will network speeds be defined relative to FCC broadband definitions?

Answer:

Please refer to the amended SOO Appendix C-1 Baseline Coverage Objective Maps, posted to www.FBO.gov on May 13, 2015, for updated language regarding this topic. Through the state consultation process, an updated Public Safety User throughput demand objective map/profile may be created and issued with the subsequent RFP. Also, the evaluation criteria will be included in the subsequent RFP in Section M. As required by the Federal Acquisition Regulation (FAR), specifically section 15.305, all factors and significant sub factors that will affect contract award, and their relative importance, will be stated clearly in the solicitation.

FirstNet seeks feedback on the definition of coverage, in accordance with the Special Notice.

605. Red/Blue/Green grids as demonstrated do not appear to provide broadband level coverage at any location, either with the old 4 Mbps standard, or the current 25 Mbps definition. Given the likelihood of large amounts of data coming from user equipment, does FirstNet anticipate their speed requirements be symmetrical, or even asymmetrical up (opposite of typical consumer use)?

Answer:

Through the state consultation process, an updated Public Safety User throughput demand map/profile may be created and issued with the subsequent RFP. Therefore, FirstNet is still in the process of making the appropriate determination pertaining to anticipated speed and type. However, please refer to the amended SOO Appendix C-1 Baseline Coverage Objective Maps, posted to www.FBO.gov on May 13, 2015, for updated language regarding this topic. FirstNet seeks feedback on the definition of coverage, in accordance with the Special Notice.

606. How do coverage projections in the draft RFP relate to FCC criteria for substantial deployment, particularly in rural locations?

Answer:

The FCC has not established build out milestones for the FirstNet spectrum license, with regard to substantial deployment within rural locations. However, in the Special Notice, FirstNet has identified substantial rural milestones that offerors would need to meet within their proposed solutions.

607. Please explain why Q-APP-4 and -7 require continuous new application production and downloads.

Answer:

The standard is an ever increasing number of applications that have Public Safety User traction as measured by the rate of downloads. Offerors are being challenged to ensure that the Application store is growing with Applications that Public Safety Users want/need and are buying, not just to add raw numbers of Applications that include unused Applications.

608. How was the "acceptable" value of 1,000 breached records annually determined (Q-APP-19)? How are "records" defined?

Answer:

FirstNet's goal and objective is to avoid any and all security breaches. This is an area of active investigation, and FirstNet seeks feedback on appropriate measures, in accordance with the Special Notice.

609. If "opting-in to the FirstNet solution" is not the best option for a state, should Q-BUS-5 require selected vendors to proceed with that approach anyway?

Answer:

Section 1442(e) of the Act sets forth the statutory requirements governing the state plan process. FirstNet is required to submit state plans to all 56 states and territories.

610. Please clarify the definition of "secondary users" on the NPSBN

Answer:

Per Section II.A.ii of the First Notice (https://www.federalregister.gov/articles/2014/09/24/2014-22536/first-responder-network-authority-proposed-interpretations-of-parts-of-the-middle-class-tax-relief), FirstNet preliminarily interprets a "secondary user" under the Act as an entity that enters into a CLA with FirstNet and accesses network capacity on Band 14 spectrum on a secondary basis for the provision of non-public safety services only.

611. How is the creation of an app ecosystem expected to be occur? Who will maintain it, manage developers, review submitted apps, etc.?

Document Reference: C-4 SV-1 and StdV-1 Page 8 Section / Paragraph: Section 4, Application Ecosystem

Answer:

FirstNet expects an offeror to propose an Application Ecosystem that minimally includes the components identified in SOO Section C.5 Objectives, objective 5 Application Ecosystem. Regarding operations, FirstNet is seeking feedback on the roles within the Application Ecosystem on Appendix C-7 Operational Architecture Functional Descriptions, in accordance with the Special Notice.

612. Is there an assumed method for enforcing Mobile VPN across all relevant operating systems or enforceable based on what each OS allows (e.g.- Per App VPN for iOS includes enforcement; AfW for Android will likely include enforcement of apps in the AfW container)?

Document Reference: C-4 SV-1 and StdV-1 Page 8 Section / Paragraph: Section 4, Application Ecosystem

Answer:

FirstNet is not implying an assumed method or that a single, universal Mobile Virtual Private Network (MVPN) solution is required per Application or per Operating System (OS). FirstNet expects offerors to propose solutions to meet FirstNet's objectives and does not intend to be prescriptive toward the

Application developer as to which MVPN solution is required. FirstNet seeks feedback regarding the use of MVPNs,in accordance with the Special Notice.

613. Is access only based on user ID (e.g.- user name and password) and devices? Or are other contextual aspects considered (e.g.- location)?

Document Reference: C-5 StdV-2 Page 7 Section / Paragraph: Section 7

Answer:

In order to meet public safety requirements for QPP and local control, FirstNet foresees a need for access controls based on secure user authentication and dynamic authorization to network resources, data, and applications. Techniques to accomplish this include, but are not limited to, multi-factor authentication and Attribute-Based Access Control (ABAC). Possible attributes might include location, default role, user assigned to an incident, incident role, and assigned agency. However, it would be up to the offeror to propose the solution.

614. Are users, roles and devices the only attributes considered for access to applications? Are there others that might be included (e.g.- location)?

Document Reference: C-9 Use Cases Page 18 Section / Paragraph: Section 4.8.6.6

Answer:

FirstNet foresees a need for access controls based on dynamic authorization to network resources, data, and applications. One technique to accomplish this includes, but is not limited to, Attribute-Based Access Control (ABAC). Possible attributes might include location, default role, user assigned to an incident, incident role, and assigned agency. However, it would be up to the offeror to propose the solution.

615. FirstNet defines "substantial rural milestone" for an IOC phase as at least 20% coverage." How was the 20% threshold determined? What is the rationale for declaring this as "substantial?"

Document Reference: C-8 IOC / FOC Page 0 Section / Paragraph: Definitions, bullet 3

Answer:

FirstNet sought comments regarding how to interpret "substantial rural coverage milestones" and how to implement the requirement in Section II.B.3 of its first public notice that was published in the Federal Register on September 24, 2014 and is available at https://www.federalregister.gov/articles/2014/09/24/2014-22536/first-responder-network-authority-proposed-interpretations-of-parts-of-the-middle-class-tax-relief.

In addition, as part of FirstNet's consultation and outreach efforts, FirstNet is having a dialogue with stakeholders about coverage objectives. Public Safety User priorities will be a part of that discussion and will lead FirstNet to the coverage objectives, and updated maps may be released as part of the subsequent RFP. FirstNet seeks feedback regarding this topic, in accordance with the Special Notice.

616. What is "Connection manager support?"

Document Reference: C-8 IOC / FOC Page 0 Section / Paragraph: timeline, 4.2.2 (4)

Answer:

The "Connection manager support for local control" is related to the connection management functionality required of FirstNet devices to support mobility and QPP framework currently under development. Specifically, it is the additional functionality in the devices within the FirstNet device ecosystem required to support dedicated bearers which will be required to support the QPP framework.

617. Coverage Maps - How do the rural coverage requirements match up to the FCC criteria for coverage?

Answer:

The FCC has not established build out milestones for the FirstNet spectrum license, with regard to substantial deployment within rural locations. However, in the Special Notice, FirstNet has preliminarily identified substantial rural coverage milestones that offerors would need to meet. FirstNet seeks feedback regarding this topic, in accordance with the Special Notice.

The draft RFP documents contain coverage objective maps, which provide a baseline of where coverage is expected to be needed in each state based on objective nationwide criteria. These maps are intended to capture PSEs' coverage requests as a starting point to be validated and updated through the consultation process. These coverage objective maps are not projections of actual coverage.

618. Coverage Maps - Will FirstNet consider determining 20% rural coverage on a state by state basis?

Answer:

As part of FirstNet's consultation and outreach efforts, FirstNet is having a dialogue with stakeholders about coverage objectives. Public Safety User priorities will be a part of that discussion and will lead FirstNet to the coverage objectives, and updated maps will be released as part of the subsequent RFP. FirstNet seeks feedback regarding this topic, in accordance with the Special Notice.

619. Coverage Maps - Can the GIS software tool be used to prepare analytics at the State level?

Answer:

FirstNet did not provide states and territories with a geographic information system (GIS) software tool. The states and territories were provided with GIS layer packages that can be opened with tools such as ESRI's ArcGIS tools.

620. Devices - How will lost/stolen devices be handled?

Answer:

FirstNet expects that the NPSBN will include the functions of Mobile Device Management (MDM) and Local Control as detailed in Appendix C-7 Operational Architecture Functional Descriptions. FirstNet expects local agency administrators to have the capability to lock and/or wipe the lost/stolen devices as needed. As needed, the UICC could also be deactivated and the International Mobile Station Equipment Identity (IMEI) could be entered into the Equipment Identity Register (EIR) for blacklisting on the FirstNet network. FirstNet requests feedback regarding the development of the MDM and Local Control framework and the implementation options of this framework within the FirstNet services.

621. Bandwidth/Spectrum - What are the determining factors for large demands by public safety during response?

Answer:

The determining factors for large demands are based on the number of users and the types of applications utilized during the event by the PSEs.

622. Costs - Has FirstNet considered how state costs for the network operation consultation will be reimbursed until all costs are covered by the build out of the NPSBN?

Answer:

FirstNet assumes the intent of this question pertains to reimbursement of consultation costs as it correlates to the proposed solution. FirstNet does not intend to reimburse state costs for network operation consultation. However, states are encouraged to explore the possibility that the State and Local Implementation Grant Program for Public Safety Broadband Planning (SLIGP) may allow funding for such costs. SLIGP was created under the Middle Class Tax Relief and Job Creation Act of 2012, and is administered by NTIA to provide resources to assist regional, state, local and tribal government entities as they plan for the NPSBN being developed by FirstNet. SLIGP provides recipients with the resources to work with stakeholders throughout the state or territory to identify needs, gaps, and priorities for public safety wireless broadband. Further detail on the SLIGP can be found at NTIA's comprehensive website:

www.doc.ntia.gov/category/state-and-local-implementation-grant-program. To explore this possibility, states should contact NTIA's SLIGP staff directly.

623. Ongoing Support - How will FirstNet handle ongoing client support, once the NPSBN is launched?

Answer:

Appendix C-7 Operational Architecture Functional Descriptions defines tasks that must be accomplished in order to make the NPSBN operational. FirstNet has defined responsibility for a small number of these tasks but is soliciting input as to the most cost effective, efficient way to allocate responsibility and define processes associated with administering client support activities.

624. Ongoing Support - Will FirstNet have service centers within each state or at a regional level?

Answer:

FirstNet is seeking feedback on functions listed in Appendix C-7 Operational Architecture Functional Descriptions, to include customer service and support, in accordance with the Special Notice.

625. Ongoing Support - How long will it take for authentication and activation of a device on the network?

Answer:

FirstNet anticipates offeror's proposed solutions will identify support procedures and equipment to activate and deactivate subscribers on the network. FirstNet expects agencies will be able to manage provisioning of their own users.

626. Ongoing Support - How will the State interface with the carrier service provider?

Answer:

FirstNet expects offerors to propose solutions that meet FirstNet's customer care and customer service objectives. FirstNet seeks feedback on this topic as part of the Operational Architecture, in accordance with the Special Notice.

627. Ongoing Support - How will commercial users be managed when the network is needed strictly for public safety?

Answer:

FirstNet foresees that the scope of a preemption action should be limited to the area of the network where congestion or other triggering criteria are met and could be as contained as a single cell sector. In this instance, there would likely be alternative, non-Band 14 connectivity options to absorb the preempted users.

FirstNet foresees that preemption of users may occur either automatically or manually. In the automatic scenario, network policies based on usage, throughput, or congestion levels may trigger preemption. The precise details and conditions of these automated policies would be discussed between the offeror(s), user constituencies, PSAC and FirstNet as appropriate.

In the manual scenario, a planned event or incident may trigger preemption via local control. As in the automated scenario, the specific policies and procedures to be followed would be discussed with the key stakeholders, as appropriate. FirstNet seeks feedback regarding this issue in accordance with the Special Notice.

628. Must a Category 1 or Category 2 offeror have an office within the United States?

Answer:

Any geographic requirements as it pertains to the NPSBN solution will be stated in the subsequent RFP.

629. Will FirstNet be subject to Federal/State/Local taxes and mandatory service fees (9-1-1 surcharge, for example), similar to current commercial cellular service, or be exempt?

Document Reference: Special Notice Page 7 Section / Paragraph: 4.5

Answer:

Taxes and fees may depend upon the arrangements proposed by the offeror. However, if FirstNet determines taxes and fees are required based on laws and regulations, the subsequent RFP may include terms and conditions as appropriate.

630. Is spectrum management, planning and assignment a function of FirstNet, the Users, or an outside provider?

Document Reference: C-7 Operational Architecture Page 8 Section / Paragraph: A.1.13.3

Answer:

FirstNet foresees Spectrum Management to be a function of FirstNet, but FirstNet seeks feedback on this topic as part of the Operational Architecture, in accordance with the Special Notice.

631. What are the specific uplink and downlink capacity and speed requirements for the network?

Document Reference: C-1 Coverage Objective Maps Page 1

Answer:

Please refer to the amended SOO Appendix C-1 Baseline Coverage Objective Maps, posted to www.FBO.gov on May 13, 2015, for updated language regarding this topic. Through the state consultation process, an updated Public Safety User throughput objective demand map/profile may be created and issued with the subsequent RFP. Through the Special Notice, FirstNet seeks feedback on the definition of coverage, in accordance with the Special Notice.

632. What is FirstNet's expectation for video resolution for the network?

Document Reference: C-1 Coverage Objective Maps Page 1

Answer:

FirstNet foresees support for multiple video resolutions. Video resolution will depend on the particular use case as well as an offeror's proposed solution.

633. Please clarify which, if any, of the VoLTE services planned are required to be Public Safety Grade (Mission Critical) in nature.

Document Reference: C - SOO Page 3

Answer:

3GPP standards for VoLTE are expected to be met as they evolve, to meet the objectives set forth in FirstNet's SOO Section C.5, which include but are not limited to reliability, resiliency, service quality, availability, security, and priority (Objectives 1, 7, 9, and 10).

634. This section shows that VoLTE is part of the roaming requirement, will this include:

A: VoLTE Dial-Up Services

B: VoLTE PTT following the 3GPP Standards

C: VoLTE PTT interface to existing LMR system?

Document Reference: C-4 SV-1 and StdV-1 Page 6

Answer:

FirstNet's SOO Section C.5, objectives 7 through 10, requires offerors to provide seamless nationwide public safety services. FirstNet is seeking feedback on those services that should be included, in accordance with the Special Notice.

635. Do the roaming partners need to have all of the capabilities noted in [Question 634] and be 100% fully compatible with FirstNet for roaming services?

Document Reference: C-4 SV-1 and StdV-1 Page 6

Answer:

Standard interfaces to support inbound and outbound roaming between FirstNet and a commercial carrier will be required. However, the requirements mentioned in the roaming section of Appendix C-4 Systems and Standard Views (SV-1 and StdV-1) are for LTE network roaming, whereas the roaming partnership could also be with networks of other technologies.

636. Each city/county and state will have multiple types of dispatch: law, fire, EMS, OES, etc. How does FirstNet view local control being provided to all of these different entities?

Document Reference: C-4 SV-1 and StdV-1 Page 9 Section / Paragraph: 4.4.2

Answer:

FirstNet assumes this question refers to Appendix C-4 System and Standard Views (SV-1 and StdV-1) Section 4.2.2 vs. Section 4.4.2. FirstNet foresees that each individual agency will have local control of its own users, devices, services, and applications.

637. Please explain the words in the diagram: "federation Access Control."

Document Reference: C-4 SV-1 and StdV-1 Page 12 Section / Paragraph: Section 4

Answer:

FirstNet foresees that in order for a PSE to share data and applications with other visiting users, it will require the PSE to support federated access controls to authenticate and authorize visiting users. FirstNet seeks feedback with regard to Identity, Credential, and Access Management (ICAM) that enable the federation of user identities and credentials from across the full range of PSEs, in accordance with the Special Notice.

638. While the section before this one seems to indicate that the public Internet can be utilized to connect each PSE to the FirstNet back-end, this section seems to make it clear that these connections must NOT be via the public Internet, please explain which is required.

Document Reference: C-4 SV-1 and StdV-1 Page 13 Section / Paragraph: 5.2

Answer:

In case of database access and other critical access, the use of the public Internet is not recommended. However, FirstNet seeks feedback on how to best meet the objectives stated in the Special Notice.

639. Please explain the FirstNet definition of "Priority Preemption."

Document Reference: C-7 Operational Architecture Page 1 Section / Paragraph: Figure 1

Answer:

Section 4.7 of Appendix C-3 Minimum Technical Requirements for Interoperability of the NPSBN provides extensive details regarding priority and preemption. "Preemption" is also defined in the draft RFP Terms of Reference as "A network capability that during an emergency permits authorized high priority traffic, e.g., coming from public safety or first responders, to take over network resources assigned to lower priority traffic, e.g., private traffic".

640. It is intended to be ruthless preemption? If not, how quickly are first responders to be given priority access to the network when needed?

Document Reference: C-7 Operational Architecture Page 1 Section / Paragraph: Figure 1

Answer:

FirstNet foresees that the scope of a preemption action should be limited to the area of the network where congestion or other triggering criteria are met and could be as contained as a single cell sector. In this instance, there would likely be alternative, non-Band 14 connectivity options to absorb the preempted users.

FirstNet foresees that preemption of users may occur either automatically or manually. In the automatic scenario, network policies based on usage, throughput, or congestion levels may trigger preemption. The precise details and conditions of these automated policies would be discussed between the offeror(s), user constituencies, PSAC and FirstNet.

In the manual scenario, a planned event or incident may trigger preemption via local control. As in the automated scenario, the specific policies and procedures to be followed would be discussed with the key stakeholders. FirstNet seeks feedback regarding this issue.

641. Is it sufficient to provide each subscribed public safety entity with an outward facing web page that provides each and every element of the required management as well as local control and the setting of QOS and priority settings?

Document Reference: C-7 Operational Architecture Page 12 Section / Paragraph: A.2.1.3

Answer:

Specific local control references can be found in Appendix C-7, Operational Architecture Functional Descriptions sections A.2.1.3, A.2.13.3.1, A.3.4.2.1.2.2.1, and A.3.9 as well as in Appendix C-9 NPSBN Use Case Definitions, section 4.8. QPP references can be found in Appendix C-9, section 4.10 and in Appendix C-7 sections A.3.5.1 and A.4.3. Agency home page references can be found in Appendix C-9, section 4.17 as well as in Appendix C-7, section A.3.4.2.9.1.

As this is a SOO-based RFP, not all elements for PSEs have been enumerated.

FirstNet seeks feedback regarding this topic, in accordance with the Special Notice.

642. How is FirstNet prepared to assist successful partner(s) in obtaining access to non-commercial sites that are federal, state, or local Public Safety owned sites?

Document Reference: C-7 Operational Architecture Page 21 Section / Paragraph: A.3.2.3

Answer:

It is FirstNet's expectation that an offeror must have the resources and expertise to identify and obtain permission to utilize commercial and non-commercial sites and be able to comply with all regulations, including environmental, without reliance on FirstNet for assistance.

643. What is the exact FirstNet definition of the various levels of priority and in terms of preemption is FirstNet expecting ruthless preemption or priority preemption?

Document Reference: C-7 Operational Architecture Page 22 Section / Paragraph: A.3.3.1

Answer:

Section 4.7 of Appendix C-3 Minimum Technical Requirements for Interoperability of the NPSBN provides extensive details regarding priority and preemption. "Preemption" is also defined in the draft RFP Terms of Reference as "A network capability that during an emergency permits authorized high priority traffic, e.g., coming from public safety or first responders, to take over network resources assigned to lower priority traffic, e.g., private traffic".

FirstNet foresees that the scope of a preemption action should be limited to the area of the network where congestion or other triggering criteria are met and could be as contained as a single cell sector. In this instance, there would likely be alternative, non-Band 14 connectivity options to absorb the preempted users.

FirstNet foresees that preemption of users may occur either automatically or manually. In the automatic scenario, network policies based on usage, throughput, or congestion levels may trigger preemption. The precise details and conditions of these automated policies would be discussed between the offeror(s), user constituencies, PSAC and FirstNet.

In the manual scenario, a planned event or incident may trigger preemption via local control. As in the automated scenario, the specific policies and procedures to be followed would be discussed with the key stakeholders. FirstNet seeks feedback regarding this issue.

644. Is it FirstNet's expectation that the winning vendor (s)/partners will set up and certify new devices for use on the network or will this function be accomplished by the PSCR, INL, or other contracted entity?

Document Reference: C-7 Operational Architecture Page 23 Section / Paragraph: 3.4.1.1.3

Answer:

FirstNet expects that industry standard and specific specialized public safety focused testing and certification will be required for the allowance of devices on the NPSBN. These functions are outlined in Appendix C-7 Operational Architecture Functional Descriptions. FirstNet seeks feedback on the operational architecture set forth in Appendix C-7, in accordance with the Special Notice.

645. Please explain the intention of this section. NIMS ICS is the Incident Command structure used for incidents and communications channels enhance the information flow but generally do not impact ICS activities as long as they function properly.

Document Reference: C-7 Operational Architecture Page 25 Section / Paragraph: A.3.4.2.1.1.2

Answer:

FirstNet is referencing NIMS ICS as a framework used by PSEs for managing different types of incidents. Support for incident management is being addressed through many of FirstNet's key objectives, including SOO Section C.5 Objective 1 (Build, Deploy, Operate and Maintain the NPSBN), 4 (Device Ecosystem), 5 (Application Ecosystem), 7 (User Service Availability), 8 (Service Capacity), 9 (Cyber Security), and 10 (Priority Services).

646. A. Will direct-mode devices be available during the term of this contract?

B. Will direct-mode devices have higher LTE power output than current LTE handheld devices?

C. Will direct-mode support all-call, groups, and sub-groups? Is direct-mode required to interface with LMR direct-mode equipment?

D. Could direct-mode make use of 700-MHz LMR channels instead of LTE?

E. Will direct-mode be required to operate both inside and outside of Band 14 network coverage?

Document Reference: C-7 Operational Architecture Page 28 Section / Paragraph: A.3.4.2.2.8.1

Answer:

A. FirstNet expects the availability of these services to be dependent upon the appropriate 3GPP standards bodies' definition and acceptance as well as when they are implemented into production.

B. It is unknown at this time if direct mode devices will be supported on the higher LTE output power while operating in ProSe direct mode. It is expected that high power user equipment (UE) devices will provide support of direct mode but the high power transmit levels may be limited to on-network mode only. FirstNet seeks feedback regarding the use of high transmit power in direct mode.

C. The call group management functionality for direct mode will be addressed by the following two 3GPP features

GCSE - 3GPP Release 12

MCPTT - 3GPP Release 13

It is expected that these features will be defined within the standards bodies and implemented based on the proposed solution. A standards-based group management functionality is expected to be deployed within the FirstNet network. Interworking and support of legacy group management functionality may be defined in the subsequent RFP.

There is no direct requirement to interface with LMR direct mode equipment. The ProSe direct mode will support direct communication between ProSe devices only.

D. ProSe direct mode is based on using a LTE band framework so the channel structure used for ProSe must fall within a specific LTE band. Since the 700MHz LMR channels do not fall within a currently defined LTE band, the 700MHz LMR channels cannot be used in the standard ProSe mode for direct communication. Using an LMR radio channel as an alternate direct connection radio link is currently not part of the ProSe standard.

E. Yes, ProSe is being standardized to support both in-coverage and out-of-coverage modes.

FirstNet is seeking feedback for details related to defining, implementing and supporting these features and functions, in accordance with the Special Notice.

647. Can FirstNet provide any capacity planning parameters?

Document Reference: C-7 Operational Architecture Page 30 Section / Paragraph: A.3.4.2.4.3

Answer:

FirstNet made the determination that utilizing a SOO approach for this acquisition is in the best interest of the program. This SOO lists high level objectives, with minimum requirements, allowing latitude for contractors to define implementation details. This comprehensive approach allows contractors to be highly innovative in proposing solutions that ensure nationwide interoperability with both opt-in and opt-out states. Through the state consultation process, an updated Public Safety User throughput demand map/profile may be created and issued with the RFP.

648. Is this design to follow the stated data speeds and capacities listed in Appendix C-1?

Document Reference: C-7 Operational Architecture Page 30 Section / Paragraph: A.3.4.2.4.3

Answer:

Through the state consultation process, an updated Public Safety User throughput demand map/profile may be created and issued with the subsequent RFP. Therefore, FirstNet is still in the process of making the appropriate determination pertaining to anticipated speed and capacities. However, please refer to the amended SOO Appendix C-1 Baseline Coverage Objective Maps, posted to www.FBO.gov on May 13, 2015, for updated language regarding this topic.

FirstNet seeks feedback on how to best define coverage, in accordance with the Special Notice.

649. Capacity solutions for overloaded sites are generally not the same as those for commercial networks. What exactly does FirstNet have in mind for this section?

Document Reference: C-7 Operational Architecture Page 31 Section / Paragraph: A.3.4.2.6.4

Answer:

Offerors should propose a solution that meets all FirstNet coverage and capacity requirements. FirstNet seeks feedback on this topic as part of the Operational Architecture, in accordance with the Special Notice.

650. What is the timeframe projected for these demonstrations? Many of the elements listed in this section are not ready for network deployment and there are uncertain dates for when and if they will be ready, please clarify this timeline.

Document Reference: C-7 Operational Architecture Page 41 Section / Paragraph: A.3.8.2.1.2

Answer:

FirstNet anticipates the offeror may demonstrate capabilities to potential subscribers and stakeholders as part of a marketing and sales effort as outlined in Appendix C-8 IOC/FOC Target Timeline.

651. It appears as though FirstNet's intent is to provide full dial-up services including directory assistance, call forwarding, call conferencing, and other typical telephony features. Is this correct?

Document Reference: C-7 Operational Architecture Page 0 Section / Paragraph: A.7.2.5

Answer:

The SOO Section C.5, objective 3 states "COMPELLING AND COMPETITIVELY PRICED SERVICES: Establish pricing structures to support service packages. NPSBN services, at a minimum, include data, voice over LTE, messaging, machine-to-machine, VPN, video, and location services, while promoting subscribership and maintaining financial sustainability."

In addition, based on Appendix C-8, IOC/FOC Target Timeline, FirstNet expects IOC-1 to include both telephony voice and data services. Please refer to section 4.1.2.7 where offers are expected to provide "Commercially available data and voice services," including VoLTE and 3G fallback.

Based on these statements, FirstNet expects offerors to provide voice features and services in line with existing commercially available voice services and features.

652. In Sections 4.1.1 through 5.4, is it FirstNet's intention that these timelines be followed or are they designed to serve as examples and guidelines only?

Document Reference: C-8 IOC / FOC Page 4

Answer:

Appendix C-8 IOC/FOC Target Timeline outlines the major features and functionalities, services and systems FirstNet considers essential to meet the needs of Public Safety Users. This target timeline is anchored by the latest 3GPP standards release schedule and is expected to be adjusted as the standards body work progresses and vendors develop products based upon those standards. This list is not exhaustive and FirstNet seeks concepts identified within the proposed solutions on which products, features, functionalities, services and systems should and should not be included in the FirstNet product portfolio. FirstNet seeks a more detailed features and functionality availability timeline along with feedback and innovative solutions as to how the timeline can be met.

To implement and make these products available, FirstNet expects to use standards-based solutions, and seeks to continue to do so for the target IOC/FOC Target Timeline as well as for future products unanticipated at this time and beyond the FOC milestones.

653. Item 6 indicates that FirstNet expects the network to be 100% complete in 6 years, is that correct?

Document Reference: C-8 IOC / FOC Page 9

Answer:

Appendix C-8 IOC/FOC Target Timeline outlines the major features and functionalities, services and systems FirstNet considers essential to meet the needs of Public Safety Users. This target timeline is anchored by the latest 3GPP standards release schedule and is expected to be adjusted as the standards body work progresses and vendors develop their products based upon those standards. This list is not exhaustive and FirstNet seeks concepts identified within the proposed solutions on which products, features, functionalities, services and systems should and should not be included in the FirstNet product portfolio. FirstNet seeks a more detailed features and functionality availability timeline along with proposals and innovative solutions as to how the timeline can be met. To implement and make these products available, FirstNet expects to use standards-based solutions, and seeks to continue to do so for the target IOC/FOC Target Timeline as well as for future products unanticipated at this time and beyond the FOC milestones. FirstNet seeks feedback in this area in accordance with the Special Notice.

654. Will FirstNet assist with tower siting on federal government property?

Document Reference: C-8 IOC / FOC Page 10

Answer:

It is FirstNet's expectation that an offeror must have the resources and expertise to identify and obtain permission to utilize commercial and non-commercial sites and be able to comply with all regulations, including environmental, without reliance on FirstNet for assistance.

655. FirstNet mentions the inclusion of satellite usage on Page 5. Can some additional information be provided regarding the target systems and use-cases?

Document Reference: Pricing Appendix Section / Paragraph: 2.1

Answer:

Offeror(s) should reference FirstNet use cases and on-demand coverage objectives that may be included in the subsequent RFP that are suitable for satellite solutions.

656. Low-cost commercial Band 14-enabled devices are mentioned. What is the criteria for low-cost devices?

Document Reference: C-8 IOC / FOC Section / Paragraph: 4.2.2

Answer:

FirstNet expects a rich and diverse device ecosystem with price points that meet the needs of Public Safety Users per SOO Section C.5 Objectives, objective 4 Device Ecosystem. FirstNet is seeking feedback as to meeting objective 4, in accordance with the Special Notice.

657. The App Store concept is a very complex solution. In order to ensure more directed/accurate feedback, please provide more functional detail, and possibly list 4-5 leaders in this area.

Document Reference: C-9 Use Cases Page 9 Section / Paragraph: 4.8

Answer:

Functional details on the FirstNet Application store can be found in Appendix C-4 System and Standard Views (SV-1 and StdV-1), Appendix C-7 Operational Architecture Functional Descriptions, Appendix C-8 IOC/FOC Target Timeline, and Appendix C-9 NPSBN Use Cases Definitions. Many public sources exist that list providers of Application store solutions.

658. Can FirstNet give more detail on the Homepage Situational Awareness?

Document Reference: C-9 Use Cases Page 31 Section / Paragraph: 27.b

Answer:

Appendix C-7 Operational Architecture Functional Descriptions sections A.3.4.2.9.1 and A.7.2.3.5.3 provide detailed functional descriptions. An agency information homepage is anticipated which is used to provide information to Public Safety Users about their local agency. The information can include agency alerts, information about incidents that are in progress, etc. It is to serve as a landing page for a PSE's users. The page must include the ability to authenticate users and restrict access to information based on user attributes. Additionally it must be able to expose agency incident and situational awareness information, as well as agency and network status and alerts.

659. Can FirstNet give examples of these services?

Document Reference: C-9 Use Cases Page 33 Section / Paragraph: 4.14

Answer:

FirstNet foresees cloud services and platforms that provide NPSBN users (PSEs, Application developers, Application hosting providers, etc.) with cloud services comparable to what are provided by commercial cloud providers (Infrastructure-as-a-Service (IaaS), Platform-as-a-Service (PaaS), Software-as-a-Service (SaaS)). FirstNet is seeking feedback from offerors with respect to how they would package, offer, and monetize cloud services for the benefit of Public Safety Users.

660. Can FirstNet provide more information on the expected CAD operation/ requirements for FirstNet systems integration?

Document Reference: C-9 Use Cases Page 34 Section / Paragraph: 4.17

Answer:

CAD systems are an important component of public safety operations. As such, FirstNet encourages CAD developers to explore system enhancements that leverage the unique capabilities of the NPSBN such as QPP and local control. FirstNet foresees that offerors' proposed solutions will include exposing APIs that will enable CAD developers to enhance their system's value to public safety.

661. Can FirstNet provide a detailed data flow for the expected operations.

Document Reference: C-5 StdV-2 Page 9 Section / Paragraph: Table 4

Answer:

The draft RFP follows a SOO-based approach that encourages creative solutions from offeror(s). FirstNet seeks feedback regarding the type of detailed solution architecture for ICAM, in accordance with the Special Notice.

662. According to the document, "Coverage is defined as having a minimum of 768Kbps downlink and 256 Kbps uplink at the cell edge with 50% loading."

Is there any special reason for defining coverage under the condition of 50% loading? Is it enough to meet public safety needs?

Document Reference: C-1 Coverage Objective Maps

Answer:

The 50% loading and minimum cell edge throughput figures are design requirements to be utilized as a part of the offeror's link budget. The loading value was derived from market research and typical industry implemented LTE networks. In addition to designing to the definition of cell edge coverage, FirstNet expects offeror(s) to meet public safety capacity needs outlined in SOO Section C.5 Objectives, objective 8 Service Capacity.

663. And the document also says, "Only those grid blocks that have more than 50% coverage will be considered acceptable."

What is the reason for guiding 50% coverage for acceptance level?

Document Reference: C-1 Coverage Objective Maps

Answer:

A one mile by one mile grid block will be deemed "covered" (coverage objectives met) if more than 50% of a grid block meets the coverage definition. This is a part of a comprehensive nationwide coverage requirement. The evaluation criteria will be included in the subsequent RFP in Section M. As required by the Federal Acquisition Regulation (FAR), specifically section 15.305, all factors and significant sub factors that will affect contract award, and their relative importance, will be stated clearly in the solicitation.

664. What is the main purpose for grid characterization?

Does the color of grid mean that there would be more eNodeB in Red Grid than in Blue Grid?

or just indicates interest for public safety in that area in order to provide information to the region?

Document Reference: C-1 Coverage Objective Maps

Answer:

The maps that FirstNet released show the initial coverage objectives and serve as a tool to create dialogue through state consultation. In addition, FirstNet anticipates use of temporary on-demand coverage as outlined in the SOO. The colors identified the concentration of areas that are likely to require a public safety response and provide an indicator of public safety's potential interest in coverage based on all of the evaluated datasets as outlined in SOO Appendix C-1 Baseline Coverage Objective Maps.

665. Could you let us know the score policy for 5 datasets to characterize grids? for example, U.S. population has low weighted score than amount of users, like that.

Document Reference: C-1 Coverage Objective Maps

Answer:

The grid was calculated as described in SOO Appendix C-1 Baseline Coverage Objective Maps. It is intended to create a dialogue for defining coverage objectives through state consultation.

666. I am looking for information on the actual base station radio hardware requirements, specifically the output power levels and most importantly, if there is any requirement on the minimum energy efficiency of the hardware. Since the efficiency of the radio strongly affects the cost to both build and to operate a wireless base station, I'm trying to determine what the requirements are. Is this type of information available anywhere?

Answer:

FirstNet anticipates the offerors' solutions will identify how to best meet the framework including availability laid out in the SOO. FirstNet does not want to limit possible solutions, however offerors must comply with FCC rules on maximum transmission power requirements.