

**Bay Area Regional Interoperable Communications Systems Authority (BayRICS) Summary Note  
First Responder Network Authority (FirstNet) Request for Proposals**

**Section C: Statement of Objectives Highlights**

For this Request for Proposals (RFP), FirstNet has adopted an objectives-based approach, rather than a traditional requirements-driven model. FirstNet provides, in Section C of the RFP, a Statement of Objectives (SOO) listing 16 high-level objectives. Potential contract awardees must demonstrate in their proposals that they will meet all of the stated objectives.

According to FirstNet, “this comprehensive, yet flexible approach allows Offerors to be highly innovative in proposing solutions that ensure nationwide interoperability,” and “to provide industry the maximum opportunity and flexibility in the development of innovative solutions for the NPSBN. Providing this flexibility enables Offerors to illustrate their intent in their proposals to meet or exceed the high-level objectives.”

Section C begins with a description of the scope of the Nationwide Public Safety Broadband Network (NPSBN):

Public safety requires a nationwide interoperable broadband network that covers urban, suburban, and rural areas and meets the information and communications technology needs associated with public safety’s mission. This acquisition of services includes business, technical, financial, operational, logistical, and program management components. FirstNet requires continuous upgrade and innovation of the NPSBN throughout the life of the contract as LTE and wireless broadband technologies (e.g., 5G, 6G) evolve, as public safety needs expand, and as new capabilities and technologies become accepted and available.

The NPSBN service, and therefore the Contractor’s operational management of the NPSBN, shall support the operational needs of public safety, ranging from routine law enforcement, fire, rescue, emergency response, and similar operations through major natural and man-made disasters and homeland security and homeland defense missions.

FirstNet will bring to PSEs [Public Safety Entities] an interoperable NPSBN with quality of service, priority usage, and preemption. In addition, the NPSBN will be hardened, as needed, from the physical perspective and will be resilient, secure, and highly reliable from the network perspective. Furthermore, the NPSBN will provide to public safety agencies both national and local control over prioritization, preemption, provisioning, and reporting.

The NPSBN and associated devices will be branded as FirstNet, consistent with applicable laws and regulations. While FirstNet will maintain oversight responsibilities for all functions, . . . it is expected that the Contractor will be responsible for executing marketing, product management; sales; distribution; customer care; communications; strategic partnering; and network deployment, operation, and evolution.

FirstNet's 16 Objectives are then described as follows:

1) **BUILDING, DEPLOYMENT, OPERATION, AND MAINTENANCE OF THE NPSBN:** Provide nationwide interoperable public safety broadband network service that ensures network coverage 24 hours a day, 7 days a week, 365 days a year and complies with the technical requirements referenced herein, throughout the RFP and its attachments.

2) **FINANCIAL SUSTAINABILITY:** Maximize the impact of government funding and leverage all 20 MHz of Band 14 to build, deploy, operate, and maintain the NPSBN to serve public safety and for secondary use while ensuring a self-sustaining business model including making payments to FirstNet as identified in Section B, Supplies or Services and Prices/Costs.

3) **FIRST RESPONDER USER ADOPTION:** Establish (i) compelling, differentiated, and competitively priced service packages and (ii) sales, distribution, and marketing capabilities to ensure adoption of FirstNet products and services by a majority of eligible PSEs within four years of award. NPSBN services, at a minimum, shall include data, voice services, messaging, machine-to-machine, virtual private network (VPN), video, unique public safety mission-critical services, and location services.

4) **DEVICE ECOSYSTEM:** 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 public safety customer base and drive substantial subscribership. FirstNet anticipates NPSBN public safety customers will expect mass market as well as ruggedized devices that are capable of gloved, one-handed, or hands-free operation as well as those capable of multimedia and high-definition data transmission both from humans and machine-based sensors. The ecosystem shall support Bring Your Own Device (BYOD) as well as, at a minimum, devices that:

- Operate seamlessly on the NPSBN and roam onto networks, including non-Band 14 commercially available networks
- Interoperate with FirstNet's applications ecosystem
- Support associated Universal Integrated Circuit Card (UICC) features and options, including the ability to home and, if applicable, roam on to multiple networks while prioritizing them appropriately
- Support software containers to isolate FirstNet applications
- Operate seamlessly with a comprehensive device management system to allow remote provisioning and control

5) **APPLICATIONS ECOSYSTEM:** Provide an applications ecosystem that supports the NPSBN with capabilities and services relevant to public safety. The ecosystem shall include, at a minimum:

- An evolving portfolio of mobile and enterprise applications, as well as cloud services
- An applications development platform

- A vibrant third-party applications developer community
- An applications store
- Local control of users, subscriptions, services, and applications
- User friendly federation of identity management
- Data, application, and resource sharing across diverse PSEs
- Core service and application delivery platforms
- Data and applications security and privacy compliance across local, tribal, state, regional, and federal users (additional information in RFP Attachment J-10, Cybersecurity)

6) **ACCELERATED SPEED TO MARKET:** Achieve operational capabilities in accordance with the schedule and feature sets denoted in the RFP Target Timeline, which may include an initial provision for operating the NPSBN using existing wireless services (similar to that of a mobile virtual network operator [MVNO]), Band 14 capabilities, significant subscribership to the NPSBN, and substantial rural coverage milestones in accordance with the IOC/FOC milestones.

7) **USER SERVICE AVAILABILITY:** Provide a broadband service with availability of 99.99% as measured in a rolling 12-month window within each reporting area. Offerors should consider areas that contain mission-critical infrastructure as needing enhanced hardening and increased availability. Service restoration activities shall be undertaken with the highest available priority but shall not exceed two hours for any impaired service. For restoration of service via temporary or secondary service capabilities, the temporary or secondary service must be transparent to the users and provide similar capability.

8) **SERVICE CAPACITY:** Provide service capacity to support geographically dispersed public safety usage throughout the life of the contract. RFP Attachment J-1, Coverage and Capacity Definitions, includes a map noting first responder density and current mobile data usage. This will serve as a baseline for public safety data demand, and mobile data demand is expected to increase throughout the life of the contract.

9) **CYBERSECURITY:** Provide cybersecurity solutions using the extensive set of industry standards and best practices contained in the International Organization for Standardization (ISO), FCC, and 3GPP specifications. Provide encryption capabilities to support federal, state, and local public safety users. Protective measures will need to be applied end to end across the FirstNet enterprise environment and will include securing user equipment (UE), applications running on UE, the RAN, and the Core network. Additionally, considerations to support Identity, Credential, and Access Management in a user friendly, secure, federated fashion will be key to any successful cybersecurity solution (details can be found in RFP Attachment J-10, Cybersecurity).

10) **PRIORITY SERVICES:** Provide a solution that allows the assignment of quality of service, priority, and preemption (QPP) parameters to user profiles using the standard service control

parameters defined by 3GPP and the Internet Engineering Task Force, including Access Class, Quality Class Indicator (QCI), Allocation and Retention Priority (ARP), and Differentiated Service (Diff Serve). Allow control and management of static and dynamic assigned QPP parameters for public safety users and the ability to change user profiles in real time in response to incidents. User profile assignments and changes should be managed locally by PSEs.

**11) INTEGRATION OF STATE-DEPLOYED RANS:** Integrate the NPSBN across state and territory deployed RANs so that users operate without service interruptions, including when crossing RAN service area boundaries. Additional details are provided in Section J, Attachment J-4, System and Standards Views.

**12) INTEGRATION OF EXISTING COMMERCIAL/FEDERAL/STATE/TRIBAL/LOCAL INFRASTRUCTURE TO SUPPORT NPSBN SERVICES:** Integrate existing assets— where economically desirable in accordance with Section 6206 of the Act and as further interpreted in FirstNet's request for public comments —with an emphasis on assets owned and operated by rural telecommunications providers.

**13) LIFE-CYCLE INNOVATION:** Evolve the NPSBN solution—including products and services—and incorporate 3GPP LTE standards as they evolve and mature throughout the life of the contract, in accordance with the FCC TAB RMTR, the Act, including in particular Section 6206(c)(4), and the attachments in Section J.

**14) PROGRAM AND BUSINESS MANAGEMENT:** Provide program management for the NPSBN in accordance with the Project Management Institute or other applicable industry standards, Information Technology Infrastructure Library (ITIL®) or equivalent, and Government Accountability Office cost guidelines.

**15) CUSTOMER CARE AND MARKETING:** Market NPSBN products and services to public safety users in all states, territories, and tribal lands. Provide highly responsive and quality customer acquisition, service, and customer care. Support development and refinement of state plans, in consultation with FirstNet, and an online tool for their delivery. Provide life-cycle service and support to all users.

**16) FACILITATION OF FIRSTNET'S COMPLIANCE WITH THE ACT AND OTHER LAWS:** Perform all objectives and provide information and services in a manner that facilitates FirstNet's compliance with its statutory requirements under the Act and all other applicable laws.

**Additional FirstNet Requirements:** In addition to these Objectives, Section C includes the following guidance for Offerors:

**State Coverage Objectives:** The Act (Section 6206(b)(3)) requires a phased deployment of the NPSBN with substantial rural coverage milestones as part of each phase. FirstNet is required to

submit a state plan, with coverage objectives, to each of the 56 states and territories. The Contractor will not be required to meet coverage objectives for opt-out state-deployed RANs.

**Minimum Technical Requirements:** The Act (Section 6203(c)) required the FCC to develop the minimum technical requirements for the NPSBN. The Offeror's solution shall comply with these minimum requirements. The Act also requires FirstNet to comply with 3GPP LTE standards and open, non-proprietary, commercially available standards.

**Performance Standards:** The Offeror shall propose service functions consistent with FirstNet's objectives, and propose necessary performance standards, metrics, and deliverables as defined elsewhere in the RFP.

**Delivery Schedule:** FirstNet has developed a five-year target milestone delivery schedule as outlined in the RFP. This milestone delivery schedule is consistent with the current 3GPP release schedule. Beyond this delivery schedule, the Contractor and FirstNet require an ongoing roadmap and product management process that allows for joint agreement on features, timing, and pricing.