



**FIRST RESPONDER NETWORK AUTHORITY
MINUTES OF THE SEPTEMBER 13, 2017
COMBINED COMMITTEE MEETING**

On September 13, 2017, the First Responder Network Authority (“FirstNet”) held a public meeting via teleconference and WebEx of the Combined Committees of the FirstNet Board. The meeting took place in Boulder, CO and began at 9:00 AM MDT. The meeting was made available to the public via teleconference and WebEx. A transcript of the meeting and the archived copy of the Combined Committee meeting teleconference can be found on the FirstNet website at www.firsnet.gov.

COMBINED COMMITTEE MEETING

FirstNet Board Chair Sue Swenson opened the meeting by taking a moment to thank all the first responders and volunteers nationwide who had responded heroically during the recent hurricanes and wild fires and to remember those first responders and others who were killed during the September 11th terrorist attack. Chair Swenson also noted that FirstNet had a number of staff members who had participated in the response to the recent emergencies and recognized Ehrin Ehlert, Brian Kassa, Jackie Miller-Warren, Board member Annise Parker, and Public Safety Advisory Committee (PSAC) Chair Tom Sorley. Chair Swenson outlined the Combined Committee meeting agenda and welcomed Ron Hewitt, Director of the Office of Emergency Communications, as the new Department of Homeland Security (DHS) Board designee.

Roll Call

Sue Swenson (“Chair”), Jeff Johnson (“Vice Chair”), Ed Horowitz, James Douglas, Kevin McGinnis, Neil Cox, Richard Stanek, Teri Takai, Ron Hewitt, Annise Parker (via teleconference), Ed Reynolds (via teleconference), Kathy Kraninger (via teleconference), and Christopher Piehota (via teleconference). A quorum was present for the Board and the Combined Committees.

Conflicts Statement and Reminder

Board Secretary Karen Miller-Kuwana reminded Board members of the conflicts statement that FirstNet had provided in advance of the Combined Committee and Board meeting and asked for

any recusals from the Board members. In response, all participating Board members indicated no conflicts of interest, and the meeting proceeded.

Votes Taken

Chair Swenson stated that before proceeding with the business of the day, the Board needed to approve the minutes from the June 28, 2017, Combined Committee and Board meeting. Chair Swenson asked for a motion to approve the minutes. Ms. Takai made the motion, Mr. Cox seconded, and the Board and Combined Committees unanimously voted to approve the June 28, 2017 Combined Committee and Board meeting minutes.

MATTERS DISCUSSED

Finance Committee Update

Finance Committee Chair James Douglas and Chief Financial Officer (CFO) Kim Farington began the meeting with a budget discussion. Mr. Douglas summarized the work that the Office of the CFO had completed over the year, including establishing key performance indicators, developing a five year strategic plan, launching the FirstNet Repository for Enterprise-wide Decision-making (FRED), and establishing a gifts and bequest account. Ms. Farington provided an update on FirstNet's Fiscal Year (FY) 2017 execution and re-baselined budget, and noted that the \$61.4M in obligations represented 78% of the \$78.2M in re-baselined obligations. For expenses, FirstNet's \$73.7M in expenses represented 82% of the re-baselined \$90.1M in expenses. Ms. Farington next outlined the critical milestones that FirstNet achieved in FY 2017 before shifting to her discussion of the FY 2018 budget.

In developing the FY 2018 budget, Ms. Farington explained that each requested budget item aligns to FirstNet's strategic goals and objectives and focuses on innovation, customer service or operations. Ms. Farington announced that the FY 2018 budget request is \$73.5M – a 13% decrease from the FY 2017 budget request. The FY 2018 budget is divided into three work streams – network operations (focused on implementation and oversight of the NPSBN network), public safety (focused on customer outreach and product management), and corporate services (focused on FirstNet program and administrative operations).

Chair Swenson asked Ms. Farington to talk about the \$100M administrative cap, and Ms. Farington assured the Board that although FirstNet was more than half-way through the 10-year life-cycle of the cap, it had only utilized 44%. Chair Swenson also asked Ms. Farington to clarify that with FirstNet's 10 year appropriations, whatever amount of money that FirstNet does not utilize in a fiscal year can be applied to the next fiscal year's utilization.

Votes Taken

Ms. Farington briefly described the provisions of the Finance Committee Resolution 18 and Mr. Douglas asked the Finance Committee to consider Resolution 18 recommending that the FirstNet Board approve the FY 2018 Budget. Ed Reynolds moved for the Finance Committee to adopt Resolution 18 and Chair Swenson seconded the motion. After a brief comment by Finance Committee member Ed Reynolds, the Finance Committee unanimously adopted Resolution 18.

Governance and Personnel Committee Update

Chair Swenson provided a brief update on the new Board member appointment process and noted that the terms of the four Board members that were set to expire in August 2017 had been extended until Board member appointments are made, but no later than December 31, 2017. Chair Swenson also reported that the Governance and Personnel Committee had concluded its role in the appointment process and expects that the National Information and Technology Administration (NTIA) and Department of Commerce will make the final Board member appointment decisions in the September/October time frame.

Consultation and Outreach Committee Update

Vice Chair Johnson welcomed Ron Hewitt to the Board, and reiterated Chair Swenson's earlier comments that the recent hurricanes and wild fires demonstrate how critical the FirstNet Network is to first responders. Vice Chair Johnson asked Chief Customer Officer (CCO) Rich Reed to provide an update, and Mr. Reed began with a review of the FirstNet State Plan timeline. Mr. Reed reported that FirstNet released initial State Plans in June and that the states had until August 4, 2017, to provide feedback or ask questions. Mr. Reed also noted that FirstNet's responses to the feedback and questions would be incorporated into the official State Plans, along with NTIA's funding level determinations that will be the basis for a grant program available to opt-out states to build the Radio Access Network (RAN). Mr. Reed added that much of the feedback and consultation to date has focused on coverage and how coverage is portrayed in the portal map.

Mr. Reed announced that FirstNet and AT&T would soon provide governors with official notice of the State Plans and initiate the 90-day decision period. He also reported that 20 states had already announced their intent to opt-in to the Network (before receipt of the official notice). In response to a question from the Board, Mr. Reed added that one of the many advantages to opting in prior to the 90-day decision period was early access to quality of service and priority, which is a real benefit to public safety. Mr. Reed was also asked to explain the lengthy opt-out approval process and noted that opt-out states will bear the responsibility of ensuring the opt-out RAN's interoperability with the FirstNet Network. The Board and FirstNet leadership concluded the update with a lengthy discussion regarding what would happen if an opt-out state's RAN

failed and/or was not interoperable, and how federal partners could opt-in or opt-out of the network.

Technology Update

Technology Committee Chair Neil Cox welcomed the Board and Committee members to Boulder, and added that he and Chief Technology Officer (CTO) Jeff Bratcher were looking forward to the Board attending the Lab demonstrations and tour. Mr. Cox also stated that he was looking forward to hearing from Dereck Orr, Division Chief of the Public Safety Communications Research Division (PSCR) at the National Institute of Standards and Technology (NIST). Mr. Cox continued with a story that illustrated how important the Network will be to first responders, and concluded with a preview of the Lab demonstrations and tour scheduled later that afternoon.

Mr. Bratcher began his presentation with an update on the work that his team is doing with applications, and outlined FirstNet's strategy and vision for the open applications ecosystem. He also described the work FirstNet had done in the last six months in the identity, credential, and access-management application development environment; testing and certification; the application store; the service delivery platform; cloud services; and local control and security aspects of the application ecosystem. Mr. Bratcher identified the four pillars that are "driving" the applications standards strategy, including: (i) technical standards that drive adoption, economies of scale and improve user experiences; (ii) marketing standards that lower barriers to entry for new application developers; (iii) legislative standards; and (iv) stakeholder standards that engage the public safety community. FirstNet has further focused these applications standards into four areas centered around law enforcement (with E-citations, digital evidence, and facial recognition); firefighters (with personnel biometrics and location, and 3-D building plans); the Emergency Medical Services (EMS) community (with electronic health records, en-route collaboration and telemedicine); and emergency management telecommunications (with CAD systems, NG 911, and government records), as well as application based and future technologies that apply across all four disciplines (location applications, data analytics, social media, Internet of Things, and virtual assistants).

Mr. Bratcher also noted in response to a question that the open application standards will drive competition in the applications market and facilitate application development by and for public safety and first responders. The open application standards will also encourage collaboration across public safety disciplines in the development of emerging application technologies, such as virtual assistants, virtual reality and augmented reality. FirstNet will look to public safety for input into what applications they want to have on their FirstNet devices and to spur innovation in applications technology. As the Board continued to discuss the process and implications of open standards applications development, Teri Takai raised the issue of data sharing on applications. The Board discussed how FirstNet could coordinate with DHS, SAFECOM, and the PSAC on application development.

Discussion then shifted to FirstNet devices, and Mr. Bratcher reiterated that the FirstNet solution is not solely dependent on Band 14 devices. Mr. Bratcher explained that FirstNet users will have access to quality of service, priority, and preemption on devices that operate on AT&T existing commercial bands. Mr. Bratcher also noted that FirstNet is collaborating and collecting input from fire fighter, law enforcement, and EMS communities in the key areas of protect, connect, and situational awareness to distill the “device needs” of public safety. Specifically, the fire fighter “vision” of a device ecosystem focuses on: rugged devices; hands-free operation; real-time monitoring and embedded VOCs chemical and radiation sensors; and surveillance and search and rescue. For law enforcement, the focus is on: security; instant identification of suspects; evidenced-based policing (cameras, vehicle videos); secure and ease-of-use access to sensitive information; and hands-free, contextual virtual assistance. For EMS, the focus is on: the timely delivery of on-scene, in-transit, and post-discharge telemedicine; patient tracking; shared diagnostic and monitoring information; rugged tablets for dispatch and clinics; and protection of personal health records. FirstNet also has a team working on the public safety capabilities that may exist within the Internet of Life Savings Things (IoLST), such as: wearable and embedded health devices; security and fire alarms; video surveillance of dwellings; body-worn video devices; bomb robots; and bio monitors.

Next, Mr. Bratcher briefly described the multi-band RAN solution that AT&T will provide for public safety, and again highlighted that this solution will be available on the entire AT&T commercial network, versus the single Band 14 solution initially specified in the RFP. He also forecasted some of the future innovation and technologies for the RAN, with a focus on deployable and aerial capabilities, and informed the Board that the FirstNet Core will be fully implemented by March 2018. The Core Network will provide basic network and mission critical services; secure access; full network sharing; and quality of service, priority, and preemption across all AT&T and LTE bands. Lastly, Mr. Bratcher briefed the Board on the evolution of standards technology, the Third Generation Partnership Project (3GPP), and Network capabilities and previewed the planned Lab demonstrations.

Public Safety Communications Research Presentation

Dereck Orr, Division Chief of the PSCR Division of NIST, began his presentation with a description of the PSCR Innovation Accelerator Program, which included \$300M to perform research and development critical to the success of the FirstNet Network. In 2013, PSCR hosted a Public Safety Broadband Research and Development Roadmap Workshop that successfully identified the near-term and longer-term needs for public safety broadband research and development, including location-based services, data analytics, and enhanced-user interfaces. Following this workshop, PSCR started mapping these three key areas, and after holding a final summit around the user-interface roadmap in July 2017, completed the road mapping process. Mr. Orr also highlighted a number of internal initiatives that NIST is working in the mission critical voice, security, user interface, and location-based services arena for the benefit of public

safety. Mr. Orr and the Board engaged in a more detailed discussion of the potential uses of location-based services for public safety before Mr. Orr turned to the topic of the PSCR Prize Challenge.

PSCR's first Prize Competition focused on Virtual Reality/Augmented Reality, with 5 winners and cash prizes totaling \$50,000. The second PSCR Prize Challenge is a Tongal Video Challenge, focused on developing the public safety communications technology of tomorrow with a video series about the Public Safety Prizes Crowdsourcing Competitions being launched by NIST and the Open Innovations Accelerator. The third PSCR Prize Challenge is the Data De-identification Prize Challenge, focused on developing an algorithm to properly de-identify data sets to ensure the protection of Personally Identifiable Information for both public safety personnel and the community. Finally, the "big challenge" is the Location-Based Services Grand Challenge. This challenge will be a multi-year, multi-phased, multi-million dollar challenge focused on rapidly accelerating technologies in the fields of indoor mapping, localization and tracking, and navigation to meet the extremely challenging requirements of first responders.

Mr. Orr also provided an update on the 2017 Public Safety Innovation Accelerator Program Grant Program. PSCR received over 162 applications and made awards to 33 grant recipients totaling more than \$36M in the areas of mission critical voice, location-based services, public safety analytics, research and prototyping platforms, and resilient systems. Mr. Orr provided details about the upcoming 2017-2018 grants for virtual reality/augmented reality, mission-critical voice, and locations-based services and mentioned the PSCR 2018 Stakeholder Conference scheduled for June 5-8, 2018. Lastly, Mr. Orr reported that PSCR has been working to finalize a Memorandum of Understanding with FirstNet and AT&T to collaborate on hosting three possible live prize challenges that will take place during the Stakeholder Conference.

Combined Committees Adjourned

The Combined Committees voted unanimously to adjourn the meeting.