



Spring 2016 Single Point of Contact (SPOC) Meeting

*April 12-13, 2016
McLean, VA*



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1. Overview

The First Responder Network Authority (FirstNet) hosted its third in-person meeting for state and territory Single Points of Contact (SPOCs) on April 12 and 13, 2016, in McLean, Virginia. In the six months since the group gathered last in Colorado, FirstNet issued its Request for Proposal (RFP) for the deployment of the nationwide public safety broadband network, completed Initial Consultation Meetings, and moved into the implementation stage of network development. As such, there was much to discuss as more than 175 representatives from 55 states and territories gathered with FirstNet staff, federal representatives, and members of the FirstNet Board, Public Safety Advisory Committee (PSAC), and Tribal Working Group.

Participants heard updates on the FirstNet Roadmap, gained clarity on the State Plans development and delivery process, and heard the latest on FirstNet's outreach and engagement efforts across states and territories, tribal nations, and federal agencies. The meeting also launched the Consultation Task Team (CTT) effort around Quality of Service, Priority, and Preemption (QPP) and gave participants a chance to hear from FirstNet's partners at the National Telecommunications and Information Administration (NTIA) and Public Safety Communications Research (PSCR) program. FirstNet's technical team also led several sessions on FirstNet's current vision for the applications, devices, and network qualities that will help realize the potential of a wireless broadband network designed for public safety.

With proposals due at the end of May, FirstNet was unable to answer specific questions about the acquisition and possible bidders, but the FirstNet Program Management Office was able to provide an overview and update on the RFP with information that is publicly available. This session, along with those on State Plans and the technical aspects of the network, presented information on the requirements and potential risks and challenges that may arise if states choose to deploy their own Radio Access Network (RAN).

The SPOC meeting was a productive two days filled with valuable information exchange, questions, and conversations. Participants asked for clarification and more information about the State Plans process, a State's decision to assume RAN responsibilities ("opt out"), Band 14 devices, the process for approving and creating applications for the network, and local control. States and territories also provided invaluable feedback on a number of topics including network features, FirstNet's outreach efforts, and the creation of a new SPOC portal for information sharing.

2. Meeting Day One

2.1 Opening Session

Presenters:

- Amanda Hilliard, FirstNet Director of Outreach
- Michael Poth, FirstNet Chief Executive Officer
- Jeffrey Johnson, FirstNet Board Vice Chairman

Amanda Hilliard welcomed attendees and expressed how pleased she was to see such a full room and such full representation of the nation. Ms. Hilliard called attention to some of the other attendees in the room, including two members of the PSAC Executive Committee; the new PSAC Tribal Working Group Chair, Dennis Dyer; and six members of the FirstNet Board. “We will cover a great deal of information over the next two days,” Ms. Hilliard told participants. “You will leave with the latest and greatest of FirstNet.” She then encouraged attendees to use the breaks in the agenda to find and ask questions of FirstNet staff and have those important conversations with other attendees.

Ms. Hilliard closed with a recap of the desired meeting outcomes:



- To keep the SPOCs informed and up-to-date on consultation and outreach activities, State Plan development and delivery, and other current efforts;
- To collect input and feedback on consultation topics; and
- To provide SPOCs with updated outreach tools and messaging for stakeholder and elected official engagement.

Next, Mike Poth added his welcome, thanking each individual for his or her participation in the meeting. Mr. Poth stressed that “this is a critical time in the life of FirstNet.” He then provided a brief overview of the RFP progress to date and reminded attendees that although FirstNet’s position is typically to overshare information, the acquisition team is simply unable to talk about certain things at this time.

Mr. Poth closed by issuing a challenge to the attendees to represent the interests of the states and territories while also representing the interests of the nation in successfully deploying a nationwide, interoperable network. “This is the very reason we are here,” he stated.

Mr. Poth was followed at the podium by Chief Jeffrey Johnson. Chief Johnson reflected on the wisdom of Congress in insisting there be a single point of contact and a State Plans process: “It ensured that all of you would be part of the program.”

Chief Johnson briefly discussed FirstNet’s consultation and outreach efforts since the establishment of the organization in 2012 and encouraged those efforts going forward,

reminding the audience that the staff and Board are present to talk about concerns and answer any questions.

2.2 FirstNet Roadmap: Current Efforts and the Path Forward

Presenter:

- TJ Kennedy, FirstNet President

TJ Kennedy provided an update on the FirstNet Strategic Roadmap, telling attendees that FirstNet has set an aggressive plan for milestones and is confident in its ability to do the hard work required to meet them. Mr. Kennedy then touched on key FirstNet actions and milestones around Public Notices, Consultation, and Outreach. He noted the work of the PSAC and its working groups and task teams, and the role FirstNet's partner agencies, including NTIA and the Federal Communications Commission (FCC), have had in the progress made to date and the role they will play in important future efforts, such as spectrum relocation. Mr. Kennedy touched on the RFP and the effort to drive a solution that is both cost effective and reflective of the needs of public safety. He then briefly covered the State Plans process and the governor's decision on the State Plan, stressing that more information will be presented during the meeting, but that the overriding goal is to move quickly and bring the network to fruition. Mr. Kennedy stressed in closing: "Nothing would make me more proud than to see this network go forward."

2.3 Panel Discussion: The Year Ahead—FirstNet 2016 Nationwide Engagement



Day 1 Panel Discussion on 2016 Engagements and Objectives. From left to right, Amanda Hilliard, Dave Buchanan, Ed Parkinson, Chris Algiere, and Genevieve Walker.

Presenters:

- David Buchanan, FirstNet Director of Consultation
- Ed Parkinson, FirstNet Director of Government Affairs
- Amanda Hilliard, FirstNet Director of Outreach
- Chris Algiere, FirstNet Federal Consultation Lead
- Genevieve Walker, FirstNet Director of Environmental Compliance

The panel sought to detail planned activities and efforts across all of FirstNet User Advocacy in furthering two principal goals:

1. Prepare states and territories for State Plan delivery
2. Prepare stakeholders for FirstNet adoption

Amanda Hilliard on Stakeholder Engagement

- Outreach is looking to engage across the nation to ensure stakeholders have current information and a solid understanding of FirstNet. FirstNet is on track to participate in more than 450 events and reach more than 60,000 stakeholders in 2016.
- FirstNet is creating a new SPOC portal that will roll out in the next few months. It will be an environment where states and territories and FirstNet can share and exchange information.
- The PSAC member organizations will be a key part of our national outreach activities.

Ed Parkinson on Government Affairs

- The Government Affairs team will be active in helping states and territories get the right information to the right people. Public safety membership in associations like the National Association of State Chief Information Officers (NASCIO) and National Governors Association (NGA) will be key to those efforts.

Dave Buchanan on State Consultation

- Moving forward, Consultation will expand its scope to reach more stakeholders and work to build relationships and understand key issues and concerns.
- There are three key steps left for Consultation this year:
 1. Governance Body Consultation Meetings
 2. Consultation Task Teams
 3. Executive Consultations

Chris Algieri on Federal Consultation

- FirstNet understands that there is another user group that needs to be reached.
- FirstNet is engaging in education and outreach efforts so federal agencies understand what FirstNet is when it arrives and deploys.
- For SPOCs, it is important to understand the federal presence within each state and territory.

Genevieve Walker on Environmental Compliance

- The SPOCs are key to the environmental compliance process and ensuring FirstNet is getting to the right people and hearing the right issues. The Programmatic Environmental Impact Statement provides a framework to move forward. The goal is to make sure environmental compliance work does not delay the network.

Key Questions/Comments
Consultation
<p>Q: You mentioned working toward adoption. Will there be support of that during Executive Consultation meetings?</p> <p>A: There are two focuses as we expand our engagement: We are thinking about the governor's decision ahead on RAN deployment and then network adoption. Both depend on getting to the right individuals and groups of people.</p>
<p>Q: We had a very successful first consultation visit. My concern is what organized or structured effort is there to make sure those efforts are maintained after the State and Local Implementation Grant Program funding runs out?</p> <p>A: I know a lot of States are starting to think about that as those dates come up. I can tell you, we will continue to work with you because we will want to continue to have a relationship with the States for a long time—into network deployment. We will continue to work with you on that and will look into the resources to support that.</p>
Environmental Compliance
<p>C: For the Broadband Technology Opportunities Program (BTOP), if we had a program change, we had to look at the environmental impact for everything again. It really slowed progress.</p> <p>A: We do have to look at every change. BTOP suffered from having a very small environmental team; we are hoping that this FirstNet team is robust enough. It will halt things, but we are hoping it will not halt things for very long. The sooner we know about changes, the faster we can address them--before it will impact timelines.</p>
<p>Q: Could we have a one-page brochure that we could put out now to pre-recruit people for the assessment?</p> <p>A: Excellent idea. You will get that.</p>

2.4 State Plans Development and Delivery Process

Presenter:

- Richard Reed, FirstNet Director of State Plans

Richard Reed began the session by telling the room he would make good on his promise from the October 2015 SPOC meeting to provide more information and detail on the State Plans process. That being said, he cautioned, there are many details that will not be clear until a partner and agreement are in place.

- FirstNet's vision for the State Plan is an online portal that will present information aimed at two audiences: potential public safety users and the State Plan decision team (including the governor). The open-access side of the portal will debut FirstNet's products and services for public safety agencies considering adopting FirstNet. The portal will also provide an access-controlled section that will provide appropriate stakeholders with the detailed information needed to make an informed decision on the State Plan.
- The State Plan is expected to provide more and better quality information than a commercial provider would typically provide. The intent is to show Band 14 deployment, as well as possible non-Band 14 coverage and deployable options.
- Information about available applications and features will be part of the plan, along with the timing of build out.
- A key part of Consultation activities in 2016 will be preparing the governors and their staffs to make the decision on RAN deployment.
- The role of the SPOCs will be to conduct outreach and education, along with identifying key points of contact and those who will need access to the controlled portion of the online portal.
- The data provided by states and territories have been provided to bidders so potential partners can see what is important to each state/territory. For states and

territories that want to continue collecting data, FirstNet will accept any additional information until September 30, 2016. This data will not affect the acquisition process nor will it be considered for proposal evaluations, but it will be made available to the selected partner and could prove quite useful.

- FirstNet will release draft State Plans to each state and territory. States and territories will have an opportunity to review and discuss the State Plan within a limited timeframe. This process must be time-constrained to prevent costs and delays to network deployment.
- Once the draft State Plans review process is complete, FirstNet will present the final plan to each governor at the same time through the portal. This will start the 90-day clock for the governor to evaluate the State Plan.

Mr. Reed then explained that the three small group discussion sessions that day would provide ample time for SPOCs and their team members to raise concerns and ask questions. In closing, Mr. Reed said that he has never been more optimistic about FirstNet’s ability to deliver on the “national architecture for public safety wireless communications” envisioned by Chief Jeff Johnson in 2011.

2.5 Small Group Discussion – Preparing for State Plan Delivery

Presenters:

- Richard Reed, Director of State Plans
- Brian Hobson, FirstNet State Plans Technical Lead

Meeting participants divided into three breakout sessions to discuss and ask questions around State Plan development, delivery, and review. FirstNet sought to address every question and share what it knows, what it does not know, and what it believes to be the upcoming process.

Key Takeaways:

- State and territory representatives asked many questions regarding how much negotiation would be possible on the draft State Plans. This gave FirstNet the opportunity to clarify that it will present the best proposal it possibly can. Because the resources available are limited, FirstNet likely can only consider changes to the plan that do not impact overall cost. Any change that would impact the economics of the network cannot be considered at that time.
- Attendees also asked for clarification around the optional data collection deadline, how that information should be collected, and how it will be used.
- The largest number of questions centered on timing, the exact content and details the plan will provide, and the process for and implication of opt-out.

Key Questions/Comments
<i>Data Collection</i>
Q: Is the new data delivered before the September 30, 2016, deadline going to be available to everyone? A: That will stay with FirstNet and our partner, once selected, only.
Q: On additional data collection, should we use the same survey? And go back to people who had already given us data?

<p>A: You can continue to use the same resources and similar scope of data. Consider reaching out to additional stakeholders – such as tribes – that did not participate in the initial collection.</p>
<p>State Plan Content and Timing</p>
<p>Q: There will be a time crunch between the time the plan is presented and the decision. Will you give us dates so we can line up the right meetings and get the right people ready?</p>
<p>A: Yes, we will do everything we can to prepare you for those timelines, as soon as we have additional information.</p>
<p>Q: Will the State Plan have financial details?</p>
<p>A: Yes, we need to provide the financial data as required per the Act by NTIA. There may be additional information, but I do not know what that may be yet. We must at least provide the funding level determination for the State, the fee structure, and how we would collect the fees in an opt-out scenario.</p>
<p>Q: What is the minimum amount of time we can expect to review the draft before the governor receives it?</p>
<p>A: It will be a limited time review. Once we have awarded that prime contract, the partner has invested billions. If we keep extending the review process it creates stress and loss of investment, but we have not developed the precise timeframe.</p>
<p>Governor's Decision and Opt-Out</p>
<p>Q: When we go to the governor's office, are we looking for an affirmative statement from the governor or just the decision not to opt out?</p>
<p>A: I am asking for an affirmative statement rather than no response. No response is an opt-in according to the Act.</p>
<p>Q: With an opt-in decision, is there any incentive to being an earlier adopter?</p>
<p>A: The shortest path to Band 14 deployment is through opt in. If your State does not opt in, there is an automatic 180-day delay. That is six months of potential deployment the State is missing out on. The FCC review process is unconstrained. It could be a significant amount of time. After the FCC determines that your plan demonstrates interoperability with the nationwide network, the NTIA must assess your ability to execute the plan. There is some risk associated with that process, which is also unconstrained by time. The resources to deploy are done through an additional grant program. In addition, there is a spectrum lease agreement. FirstNet is not condemning opt out. If a State selects it, we want that State to be successful. What is intolerable is a failed deployment. If a State deployment fails to mature, we have a State-sized gap in our network.</p>
<p>Q: If a State opts out, will they be able to collect revenue?</p>
<p>A: The Act as well as our Public Notices have made clear that excess revenue will be reinvested in the nationwide network.</p>
<p>State Responsibility</p>
<p>Q: If a State opts in and accepts the RAN design, is there an expectation the State will provide support for the deployment?</p>
<p>A: There are no expectations, but we would love your support. Any additional support that makes the deployment faster and lower cost would be welcomed.</p>
<p>Q: Even in an opt- in scenario, what activities are the States still responsible for? How will the State Plans address those?</p>
<p>A: We are still working with this question as we get it often. We are working to ensure that these do not become unfunded roles. It also may be an optional responsibility.</p>

2.6 Small Group Discussion – Quality of Service, Priority, and Preemption

Presenters:

- David Buchanan, FirstNet Director of Consultation
- Claudia Wayne, FirstNet Senior Policy Advisor to Consultation
- Brian Kassa, FirstNet Director of Technology, Planning, and Development
- Jennifer Harder, FirstNet Senior Public Safety Technology Planner
- Jeff Posner, FirstNet Senior Applications Architect

Meeting participants divided into three breakout sessions to discuss issues with respect to Quality of Service, Priority, and Preemption (QPP).

Claudia Wayne advised attendees about the Consultation Task Teams (CTT) process. CTTs will provide a formal opportunity for stakeholders to provide meaningful input to inform FirstNet network policies and operations. The first CTT will address QPP. FirstNet is asking each SPOC to identify up to five potential participants who have expertise in technology and operations for the task team on QPP. FirstNet will send background information to each subject matter expert to review in advance of the regional CTT meetings. The purpose of the QPP task team is to provide input and feedback on the conceptual QPP framework and to further inform the QPP network policies.

Brian Kassa presented the concept of QPP by showing an image of a six-lane highway to help attendees envision how the network will operate. In the scenario, public safety will be the primary user of that highway and secondary users will be those that FirstNet’s partner allows onto the highway when it is not in heavy use by public safety. The highway is paved and smooth (quality of service), and first responders not only have a lane to themselves (priority) but can kick other people off the highway if necessary (preemption).



Day 1 Quality of Service, Priority, and Preemption Breakout Session. From left to right, Claudia Wayne, Brian Kassa, Dave Buchanan, Jennifer Harder, and Jeff Posner.

Jeff Posner then discussed local control, which influences network behavior during normal activities and escalated incidents by allowing public safety agencies to configure or temporarily change the default settings that automatically influence QPP. Local control input will affect the network’s behavior through configuration of priority levels of users, devices, services, and applications during both normal activities and escalated incidents. The more incident information users provide to the network, the smarter it will be about QPP and the more effectively it will manage incidents. Manual control of QPP will be possible, but should rarely, if ever, be necessary.

Key Questions/Comments
<p>Q: How are the policies that you come up with going to be applied? A: The policies that we will be discussing are national network policies, but they may have state and local implications.</p>
<p>Q: Since this is a new technology, how do we know that it is going to work?</p>

A: The underlying LTE technology exists today and has been tested and is ready to be deployed. The United States is at the front of the public safety communications world. We are looking at rolling this out over the next five years as the network rolls out. This is a vision of the future, and it is going to be a learning experience.

Q: In the past, you talked about being able to change the sector size to shift loading. What is the use of the deployable assets in Band 14? How can I control the build and the impact on the infrastructure because both things are mission critical? How is that determined?

A: The ability of the network to recognize that cell sector A has gone out and that adjoining sectors need to build up their power or shift users to a different cell falls into the functionality of the network or the ability of the network to self-heal and self-configure. It is a little out of scope for the discussions of QPP and would better be suited as something to come out of the network operational capacity.



Participants in the NTIA session spent time working in smaller discussion groups.

2.7 Small Group Discussion – NTIA Panel

Presenters:

- Marsha MacBride, Acting Associate Administrator, NTIA
- Yuki Miyamoto, State and Local Implementation Grant Program (SLIGP) Federal Program Officer
- Patrick Sullivan, Telecommunications Policy Specialist, NTIA
- Carolyn Dunn, State Alternative Plan Program (SAPP) Director, NTIA

The final small group discussion allowed meeting attendees to hear the latest from NTIA and ask questions. SLIGP Federal Program Officer Yuki Miyamoto began by reviewing the history of SLIGP and the progress made under the program to date. She told the audience that SLIGP funds have been used to engage 141,980 stakeholders and distribute 1,396,271 outreach materials. She closed by suggesting ways that states and territories could still use their remaining SLIGP funds before the funds expire between December 2017 and February 2018.

On the statutory aspects, NTIA Telecommunications Policy Specialist Patrick Sullivan went over rulemaking for FirstNet and stressed that FirstNet must be permanently self-funded. However, the Act allows for partnerships that could support fees sufficient to cover the cost of the network, and Mr. Sullivan said NTIA wants to ensure that their fee approach aligns with the intent of the Act and is compatible with FirstNet’s need to operate in a competitive marketplace.

Regarding the State Alternative Plan Program (SAPP), Carolyn Dunn explained that States can opt out and build their own RAN with approval from NTIA and the FCC. States may apply for a grant from NTIA to help fund the cost of building their own RAN. She further explained that NTIA would be evaluating State applications for opt-out using five statutory demonstrations and that NTIA would soon release a public notice with more information on these five requirements.

Marsha MacBride, Acting Associate Administrator of NTIA, then presented the five statutory guidelines for states and territories that opt out of FirstNet’s proposed plan and choose to build their own RAN:

- A State’s ability to meet the required technical capabilities and the funding to support them
- A State’s ability to maintain ongoing interoperability with the nationwide network
- A State’s ability to complete the project within comparable timelines
- A State’s ability to demonstrate cost-effectiveness of the state alternative plan
- A State’s ability to provide comparable security, coverage, and quality of service

Ms. MacBride repeated that the forthcoming public notice would give more information on these requirements. Participants were then asked to discuss the five statutory criteria for opt-out. Some of the challenges they identified included:

- It would be difficult for a state or territory to demonstrate that they will always have sufficient funding on hand to support the RAN.
- It would be challenging for states/territories to get timely and appropriate legislative approval (particularly in States where the legislature only meets once every two years) and to develop qualified staff and resources.
- It may be hard for states/territories to meet FirstNet security standards.

Key Questions/Comments	
Q: Is the 180-day window inclusive of the time to execute a contract or simply the time to issue an RFP?	A: The statute just says “completed;” we need to figure out what that means and define all that was spelled out in the statute.
Q: How much money can a State get for RAN construction if they opt out?	A: We are trying to figure that out. Our thinking is that the grant will not be sufficient to fund the entire build out of the RAN, and States with a large spectrum value may not be eligible for grant funds at all.
Q: An opt-out State must apply to NTIA to enter into a spectrum lease with FirstNet. What criteria will be reviewed in order to obtain an agreement?	A: The statute requires that NTIA review an opt-out State’s ability to meet the five demonstrations laid out in the legislation in order to receive the right to participate in a spectrum lease agreement with FirstNet.
Q: Will the grant funding be competitive or based on certain criteria?	A: The grant will not be competitive in the traditional sense. However, the State’s ability to recoup value may be considered in making the final award decision.

2.8 Day One Closing Remarks

Presenter:

- James Douglas, FirstNet Board Member

Governor James Douglas assessed that, “it has been a great day,” and expressed that he is delighted to see that network deployment is growing ever nearer. Governor Douglas then reported that he had the opportunity to meet with many newly elected governors after the last election and pushed the audience to ensure the FirstNet team in each state and territory has a good working relationship with their governor’s office. He stressed that he is available, and there are substantial resources available through FirstNet, to facilitate meetings and information sharing around the forthcoming State Plans. “We do not want this to be a surprise,” Governor Douglas reminded the crowd.

3. Meeting Day Two

3.1 Opening Session

Presenter:

- Richard Stanek, FirstNet Board Member

Sheriff Richard Stanek welcomed the group and expressed his satisfaction that outreach was occurring throughout the country. Sheriff Stanek stressed that through his 30 years in policing he has come to understand the crucial role of communications and now the potential of FirstNet. He acknowledged that while FirstNet is not perfect, everyone is working incredibly hard to develop the best possible network. He thanked everyone on behalf of public safety for all of the hard work that the SPOCs and others are doing to support FirstNet.

3.2 FirstNet RFP Overview and Update

Presenter:

James Mitchell, FirstNet Director of Program Management Office

James Mitchell opened his RFP update by saying that over the course of the last two and a half years, FirstNet has built up its staff and created “a consultation machine.” He referred to TJ Kennedy’s mantra that consultation was one of the most important things for FirstNet. Mr. Mitchell acknowledged the role consultation had played in RFP development and assured the states and territories that their fingerprints are all over the RFP.

Mr. Mitchell then informed the crowd that more than 400 people attended the pre-proposal conference, and FirstNet has answered more than 1,000 questions on the RFP. The RFP has been amended in response to those questions and responses. Mr. Mitchell reminded the audience that he could not take questions in this forum because every answer must be provided to every potential bidder. Mr. Mitchell went on to explain that FirstNet has extended the deadline for responses to the RFP by 18 days to May 31. FirstNet, he stressed, had built in some room to allow for extensions, and the change will not affect the award timeline.

Regarding choosing a potential partner for FirstNet, he said that FirstNet desires a network with commercial standards but with “public safety flavors.” He explained that the responses would be evaluated using the factors listed in Section M of the RFP. He also stressed that FirstNet is a public-private partnership, and the states and territories are part of the equation; the partnership is not truly realized until each state and territory is part of the network. Mr. Mitchell specifically addressed the issue of opting out and said that where States opt out, there will be potential gaps in the network in the early phases of network deployment. He closed by saying that FirstNet adoption among public safety users will be essential to making the network self-sustaining and successful.

3.3 NG9-1-1 Cost Study

Presenter:

Laura Pettus, NTIA Deputy Associate Administrator

Laura Pettus, the NTIA Deputy Associate Administrator, presented details on the Next Generation 9-1-1 (NG9-1-1) Cost Study, an important parallel effort with FirstNet. She stated that the NG9-1-1 Cost Study is a joint project between the Department of Commerce and the Department of Transportation to begin to address a significant technology gap in the emergency communications ecosystem. When the FirstNet network launches, both the public and public safety will have access to cutting edge communications technology, but public safety answer points (PSAPs) may not have the same updated technology. Ms. Pettus stressed that legacy 9-1-1 systems across the nation are outdated. She explained that the cost study will help the government figure out the general cost for updating these 9-1-1 systems and will provide a basis for discussing the emergency communications gap with Congress and other stakeholders. She encouraged SPOCs and other State officials to help with the effort by providing cost data.

Key Questions/Comments
<p>Q: From the urban areas you will get good cost information, but what about rural areas? A: We are looking at who has done some work there already. Some rural states have already started down that path, such as Iowa, North Dakota, and South Dakota.</p>
<p>Q: What are the goals for the additional \$115 million in grants to further support improvements to 911 services? Is it infrastructure or services? Are you looking for local jurisdictions to apply? A: The law provides four different core goals of the grant program, which are all pretty broad. It is not enough money to do all the things listed. The question becomes: What can we accomplish with the amount of money we have? On states applying versus the localities, we are looking at some of the efficiencies of using a state entity to apply and then distribute the funds. That is yet to be determined. We also do not have the funding yet for the grant program. The FCC is still waiting for the cascading order of funding priorities under the Act.</p>

3.4 PSAC Update

Presenters:

Harlin McEwen, PSAC Chairman
Todd Early, PSAC Early Builder Working Group
Chair

Harlin McEwen opened by explaining that the purpose of the PSAC is to address various issues that come up in network planning. The PSAC has two current working groups, the Tribal Working Group and the Early Builder Working Group, and is in the process of setting up a third to ensure federal agencies are involved and participating in the PSAC's work. He also explained that the PSAC has public safety task teams on Identity, Credentials, and Access Management (ICAM) and Local Control. Both of the task teams will be submitting final recommendations at the end of July.



PSAC Update with Chief Harlin McEwen, the PSAC Chair (speaking), and Todd Early, the Early Builder Working Group Chair (seated)

Todd Early, Chair of the PSAC Early Builder Working Group, identified the five state or regional early builder programs: Adams County, Colorado; Harris County, Texas; Los Angeles Regional Interoperable Communications System (LARICS) in California; New Jersey; and New Mexico. Mr. Early emphasized that the value of the early builder program is that FirstNet can get real life data and information to provide to PSCR and the FirstNet Chief Technology Office team. The data can provide information on what worked and, just as importantly, what did not work. He stated that the early builder program is also working with large events, such as the Houston Livestock Show and Rodeo, to get wireless broadband technology into the hands of public safety and receive feedback on it. He closed by explaining that the early builder program is providing information on what the important issues are and what some of the biggest challenges may be going forward.

3.5 Tribal Outreach Panel for States with Tribes

Presenters:

Carl Rebstock, FirstNet Tribal Government Liaison
Adam Geisler, FirstNet Regional Tribal Government Liaison
Margaret Muhr, FirstNet Regional Tribal Government Liaison
Mervin Savoy, Piscataway Conoy Tribe

Carl Rebstock welcomed the group and explained that the purpose of the session was to give the SPOCs an understanding of the importance of working with tribes and to provide some tools to work with tribal leaders. He stressed that SPOCs should understand the relationship that the federal government has with tribes and the particular challenges that tribes face right now. He stated that he was grateful to have everyone here to assist in the effort with tribes and introduced Mervin Savoy of the Piscataway Conoy tribe of Maryland to open the meeting with a prayer. Mr. Rebstock pointed out that starting with a prayer is a sign of respect and can get a meeting with tribal leaders off on the right foot.



Day 2 Tribal Outreach Panel for States with Tribes

Margaret Muhr, FirstNet Regional Tribal Government Liaison, introduced a [video](#) made by FirstNet that demonstrated some of the challenges of policing on tribal lands. Ms. Muhr pointed out that tribal lands do not always have paved roads, and communications in tribal lands can be a challenge. In order to put tribal lands in perspective, Ms. Muhr stated that 34 states have tribal lands within their boundaries, and most of these areas are underdeveloped. She also

warned that due to the past mistreatment of tribes by the federal government, many tribal leaders and members mistrust the government, which can make working with the tribes challenging.

Next, Adam Geisler, FirstNet Regional Tribal Government Liaison, urged SPOCs to bridge the gap with tribes in each state, and to be aware that some tribal lands may extend into two or more neighboring states. He also introduced the members of the Tribal Working Group. Mr. Geisler then asked a few states to share their experiences working with tribes. Four different states presented their experiences and the lessons learned. The primary takeaways were to consult with the FirstNet tribal liaisons, find the right people in each tribe to talk to, get out into the tribal lands and meet face-to-face, and respect the traditions of each tribe. Mr. Geisler and Ms. Muhr both urged the SPOCs to use their office as a resource.

3.6 General Outreach Panel for States Without Tribes

Presenters:

Jeremy Zollo, FirstNet Deputy Director of Consultation
Ryan Oremland, FirstNet Director of Communications

Jeremy Zollo opened the discussion by acknowledging that FirstNet heard during the last SPOC meeting that it needs to do a better job with messaging to everyone from the SPOCs to the local user.

Mr. Zollo said that during the session, FirstNet would like to get input from the SPOCs on what types of materials they need for outreach as well as how to tailor them specifically towards the public safety community. He stated that the biggest challenge is that the network and its applications are concepts rather than demonstrable products.

Ryan Oremland then advised the SPOCs on the three different types of work that FirstNet does within their communications office. Under media relations, there are 20 different news outlets that FirstNet interfaces with right now, and they are building to include more State and local media. Social media is the second tool used by communications. Twitter has become an effective way to share information, and many States also use it to promote their outreach efforts and engagements. FirstNet also recently added [Tumblr](#) to its social media outreach as well as experimenting with Periscope and live streaming. The third effort is outreach products such as factsheets, newsletters, articles, and blogs. FirstNet is trying to get up-to-date information out to the community several times a week.

Key Takeaways:

1. FirstNet will launch a SPOC portal soon and is encouraging feedback about the user experience to ensure the portal gets used and is easy to navigate.
2. FirstNet is committed to complete transparency and to ensuring that SPOCs know what FirstNet is doing.

Key Questions/Comments
<p>Q: Are you going to do something similar to the public safety outreach sheets, but targeted to elected officials?</p> <p>A: Yes, we will and please let us know if you want something tailored specifically to your State. Our Government Affairs team is working on it.</p>
<p>Q: Could you put something in the elected officials outreach sheet about land mobile radio (LMR)? Officials seem to think they do not need to concern themselves with LMR because FirstNet will be addressing the need.</p> <p>A: Yes, we will definitely do that. On the website we also have a page dedicated to discussing the current status of LMR.</p>
<p>Q: On the portal, should we just have one nationwide portal where you set up your own profile? Do you want regional portals? State by state portals?</p> <p>A: Having a national page seems to make sense so we can see everything, but then we would like to see a customizable experience and make our own profiles. That way it is in a format that is easy to read for each of us.</p>

3.7 What’s New in Technology and Research

Presenters:

Jeff Bratcher, FirstNet Chief Technology Officer

Dereck Orr, Public Safety Communications Research (PSCR) Division Chief

Jeff Bratcher opened by explaining FirstNet’s involvement with the Third Generation Partnership Project (3GPP) and the effort to ensure that the standards developed take unique public safety needs into account. He also stated that FirstNet is engaging in device-focused market research and trying to push the development of public safety-focused devices and features.

Dereck Orr explained that PSCR is a program within the Department of Commerce whose mission is to provide new technologies for public safety. He stated that PSCR received \$300 million for public safety communications research and development from the Middle Class Tax Relief Act of 2012, and the funding expires in 2022. PSCR has used the funding to launch programs to develop advanced wireless communications beyond the current capabilities of public safety, specifically in the areas of mission critical voice technology, broadband over long term evolution (LTE), and LMR to LTE integration. With this money, PSCR is now able to address identified gaps in public safety communications. He explained that half of the \$300 million is to be distributed outside of the government to fund prize challenges where companies compete to create a technology that addresses a need identified by PSCR. Mr. Orr went on to discuss the roadmaps that PSCR is creating in the areas of location-based services, analytics, and enhanced user interface/user experience. He closed by saying that the user interface/user experience group is beginning now and has open membership if anyone would like to be involved.

Key Questions/Comments
Q: In terms of the LMR to LTE transition, how are we to address this? A: There is activity regarding the standards going on and after that PSCR will figure out what they are doing from a technology standpoint.

3.8 Breakout Discussion: Applications and Devices Overview

Presenters:

Joe Martinet, FirstNet Director of Devices
Jeff Posner, FirstNet Senior Applications Architect

Joe Martinet opened by saying that FirstNet wants to foster a rich and diverse portfolio of devices and applications that will encourage public safety to adopt FirstNet. He said that public safety users want phones that are ruggedized to withstand on-the-job demands. He presented a roadmap of how the device portfolio is expected to evolve to include services that are needed by public safety. Mr. Martinet also stated that FirstNet is looking at new accessories such as handsets, body sensors, body cameras, and scanners to complement the devices offered. He acknowledged that FirstNet must ensure interoperability for volunteers and users who will bring their own device rather than having one provided by an agency or employer. He also stressed that FirstNet would keep device security and quality control in mind while developing this portfolio of devices.

Jeff Posner stated that applications and devices are two sides of the same coin that represent how a user interfaces with FirstNet. He said that FirstNet needed to “nail it” when it came to applications and devices because public safety will use these applications and devices on the FirstNet network every day. He explained that FirstNet wants to enable developers to create applications that appeal to public safety and address their specific needs.

Key Questions/Comments
Applications
<p>Q: Will these applications be available for everyone?</p> <p>A: The public safety applications will only be accessible to public safety customers, but the commercial applications are also available. Agencies can black list applications that they do not want to allow or white list applications so the device can only use what is allowed.</p>
<p>Q: What about a third party application on a bring-your-own-device plan? How do you maintain security and encryptions?</p> <p>A: We are researching containerization, which allows commercial applications to coexist with secure applications.</p>
<p>Q: If you are going to push for a Voice Over LTE standard, why not push for the same standards with other applications instead of putting public safety at the mercy of the developers? Develop universal standards for computer-aided dispatch, mapping, etc.</p> <p>A: If they meet the specifications they will be able to talk to each other. The dialer you use to talk on is an application. The same way two phones on two different networks can talk to each other because of the standards that rule Voice Over LTE. We want to support application development. This will become clearer once our partner is on board. From day one, this is a data network; it always comes back to verification and validation of any service or application. We know we need it. Great feedback.</p>
Devices
<p>Q: So FirstNet will be collecting the input from public safety, but who will be creating the devices, and how will you get those specifications to third parties?</p> <p>A: We are really going to try to leverage the commercial industry and we need your help to drive that demand now.</p>
<p>Q: Is FirstNet going to have a role in approval of the devices used by secondary users on Band 14?</p> <p>A: As the spectrum holder we think we have some say in that game, but we are working on just what that looks like. We will see what happens with secondary device usage.</p>

3.9 Breakout Discussion: Public Safety Grade

Presenters:

- Stephen Dean, FirstNet Director of Standards
- Erickson Trejo-Reyes, FirstNet Lead Architect
- Patrick Schwinghammer, FirstNet Director of RAN
- Brian Kassa, FirstNet Director of Technology, Planning, and Development
- David Marutiak, FirstNet Devices Support
- Rajan Rajan, FirstNet Senior Application Architect

Brian Kassa stated that there is not a good definition for Public Safety Grade, but they are learning more about it. He stressed that the network should have availability, reliability, resiliency, and security. He also reiterated the need for a network that can withstand damage and quickly recover if damage occurs. He stated that FirstNet envisions self-organizing networks that can self-configure and do not need engineers at each site. FirstNet wants to ensure the system meets the criteria for functions and capabilities. He explained that FirstNet asked vendors to propose how they would measure each metric from the RFP, but the availability of a network is a complex topic and hard to measure. He then stressed that cyber security will be extremely important for the network, and that FirstNet needs to protect traffic all the way back to the public safety agency.

Key Questions/Comments
<p>Q: Given that you are letting the vendor tell you how they will employ the various methods to meet the FirstNet standards, how will you then evaluate that?</p> <p>A: That is the advantage and disadvantage of an objectives-based RFP. For the quantitative section of the RFP we are going through how much does the offer match up to what SPOCs submitted. They will say we will be providing that coverage, and we have to really buy into that they will have that coverage. We will go into certain areas to redo the RAN plan and see if we come up with the same numbers qualitatively as well.</p>
<p>Q: With that final agreement, will it only use availability or will you be using reliability as well?</p> <p>A: How they restore during an outage is part of the RFP and will also be part of how we evaluate the vendors.</p>
<p>Q: How frequently do I have to authenticate a device?</p> <p>A: One of the most critical things for the security of the network is that cyber security cannot affect the ability of a user to do what he or she needs to do. Once we know a device is taken, we can remotely clear it. Even a thumbprint can work since it would take too long to enter a long password.</p>
<p>Q: What is the dynamic distribution of coverage?</p> <p>A: Dynamic distribution can help you recover your coverage areas. If a cell site is out, you may lose capacity, but that is the advantage of having secondary use. We can use self-organizing networks and minimize the effect on first responders.</p>

3.10 Breakout Discussion: PSCR Update

Presenters:

Tracy McElvaney, PSCR Engineering Supervisor
 Jeb Benson, PSCR Engineering Lead
 Vihang Jani, PSCR Electronics Engineer
 Chris Walton, PSCR Electronics Engineer

Led by Tracy McElvaney, several engineers from PSCR provided an update on the work coming from the Mission Critical Voice (MCV) Roundtable and described research regarding location-based services and local control.

Key Takeaways:

- Through interviews and a roundtable, PSCR worked with public safety to identify the key needs for MCV or Mission Critical Push to Talk (MC-PTT), which included the ability to use it individually or in a group, on or off the network, and to have an alerting function if someone is in trouble.
- It will take 24 months from the FirstNet RFP award to implement MC-PTT. The initial version will then be enhanced over the next couple of years. This is not going to happen overnight.
- PSCR also worked with public safety to identify their six priorities for Location Based Services: 3D geolocation, visualized mapping, interoperability, consideration of the power consumption of devices, standardization of public safety devices, and the development of wearable devices.
- Dynamic local control is new to the industry and currently the dynamic controllers do not support the needs of public safety. The gaps are still being identified and the exact functionality is still being developed. Local control should be something that rarely occurs but can occur when it needs to.

Key Questions/Comments
<p>Q: I have read through the standards for MC-PTT, and I am concerned that we are replacing a simple system with a complex one and introducing more potential problems. Are we making things more complicated?</p> <p>A: I read through those standards, too, and there are a lot of them. With the new system you will not have to manage your network anymore so it may end up being simpler. We appreciate that feedback, but the extra complexity might enable more features that you might like. We just want to identify gaps and inspire confidence in this technology.</p>
<p>Q: If the MC-PTT standard becomes the standard, the way it is delivered may not be interoperable. If States do not pay the same company, will they be interoperable?</p> <p>A: Interoperability has many layers, and we need to solve interoperability problems. When you start talking about MC-PTT, it will not be any different. There will be hundreds of applications, and they all need to be interoperable. We do not know what the FirstNet network is going to look like, and there may be some agencies that buy a non-interoperable MC-PTT system because they love it and they can still use it. But FirstNet's goal is an interoperable network.</p>
<p>Q: On local controllers, the actual dynamic controllers, do those exist and are they in your lab?</p> <p>A: They are commercially available now, but they do not have the capabilities we need.</p>

3.11 Day Two Closing Remarks

Presenter:

Kevin McGinnis, FirstNet Board Member

Kevin McGinnis brought the meeting to a conclusion with a lighthearted jab: “With all the jokes between the cops and the firefighters, the paramedic gets the last word!” He then praised the tenor of the meetings, saying the mood had gone “from mixed to mostly positive.” He thanked the members of the Tribal Working Group and stressed that everyone should be particularly thoughtful about tribal participation and input in FirstNet. Mr. McGinnis also congratulated PSCR for their efforts and the once in a lifetime opportunity afforded by the \$300 million they were given for public safety communications innovation. He closed by praising the strength of the FirstNet team and the talent among the state and territory representatives. “We are going to get a wonderful partner,” Mr. McGinnis predicted in closing, “and we are going to blow this thing away.”



Kevin McGinnis gives closing remarks

Appendix A - Attendee List

Spring SPOC Meeting: April 12-13, 2016		
LAST	FIRST	AFFILIATION
Dawson	Cathy	Alabama
Murph	Charles	Alabama
Nail	Curtis	Alabama
Leveque	Matt	Alaska SPOC
Magall	Christopher	American Samoa
Ena	Sapi	American Samoa
Brown	Cinta	American Samoa SPOC
Martinez	Dina	Arizona
Chung	Tim	Arizona SPOC
Baker	David	Arkansas
Rowe	Jim	Arkansas
Gottspomer	Kelly	Arkansas
Corbett	Mike	Arkansas
Gray	Trey	Arkansas
Anderson	William	California SPOC
Mills	Ed	Colorado
Coleman Madsen	Kim	Colorado
Keller	Kristin	Colorado
Shepherd	Brian	Colorado SPOC
Hacket	Bill	Connecticut
O'Donnell	Bernie	Connecticut
Drozynski	Bob	Connecticut
Lehr	Ray	Delaware
Dobrowolski	Tim	Delaware
Blevins	Wiley	Delaware
Grubb	Mark	Delaware SPOC
Mulholland	David	District of Columbia
Wilson	Clyde	District of Columbia
Jouannelle	Guy	District of Columbia
Crane	James	District of Columbia

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LAST	FIRST	AFFILIATION
Jack	Joshua	District of Columbia
Matthews	Stephen	District of Columbia
Kavaleri	Teddy	District of Columbia
Burbridge	Jack	District of Columbia SPOC
Perry	Alex	Florida
Gowen	Larry	Florida
Vincent	Marc	Georgia
Lujan, Jr.	Frank LG	Guam
Pereda	Leigh	Guam
Cook	Dolores	Hawaii
Garcia	Victoria	Hawaii
Logan	Arthur	Hawaii SPOC
Wells	Bob	Idaho
Larson	Brent	Idaho
Boyden	Mike	Idaho
Mace	Rob	Idaho
Casey	Dan	Illinois
Springer	Bill	Illinois
Kindelspire	Chris	Illinois
Galvin	Joe	Illinois
Vice	David	Indiana SPOC
Buffington	Andy	Iowa
Lumbard	Ric	Iowa
Lampe	Tom	Iowa SPOC
Bryant	Jason	Kansas
Sanford	Barry	Kentucky
Moore	Misty	Kentucky
Nesselrode	Derek	Kentucky SPOC
Waskom	James	Louisiana
Selvaratnam	Jeya	Louisiana
Edmonson	Michael	Louisiana SPOC
Maxwell	David	Maine
McCarron	David	Maine
Leahy	Lisa	Maine SPOC

Spring SPOC Meeting: April 12-13, 2016

LAST	FIRST	AFFILIATION
Urban	Greg	Maryland
Hasenei	Ken	Maryland
Farley	Norm	Maryland
Garcia	David	Maryland SPOC
Bendremer	Sandy	Massachusetts
Saltzman	Mike	Massachusetts
Bailey	Scott	Massachusetts
Stoddard	Bradley	Michigan
Faulkner	Carroll	Michigan
Blastic	Laura	Michigan
Favor	Pam	Michigan
Deal	Dave	Minnesota
Miller	Melinda	Minnesota
Mines	Jackie	Minnesota
Risvold	Michael	Minnesota
Bloomberg	Bob	Missouri
Thurston	Les	Missouri
Strope	Roger	Missouri
Sullivan	Dan	Montana
Lonergan	Patrick	Montana
Ness	Quinn	Montana
Wilhelm	Bob	Nebraska
Shearer	Stan	Nebraska
Toner	Ed	Nebraska SPOC
Gagliardo	Andrew	Nevada
Martin	Rick	Nevada
Cage	Caleb	Nevada SPOC
Stevens	John	New Hampshire SPOC
Brady	David	New Jersey
Nugent	Jennifer	New Jersey
Boley	Ken	New Jersey
Rohrbacher	Michael	New Mexico
Ackley	Darryl	New Mexico SPOC
Guedko	Larissa	New York
Delaney	Matthew	New York
Cumoletti	Steve	New York
Smith	Allen	North Carolina
Sural	Jeff	North Carolina

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LAST	FIRST	AFFILIATION
Grasso	Red	North Carolina
Sadowski	Allan	North Carolina SPOC
Walker	Derrick	North Dakota
Schell	Duane	North Dakota
Navolio	Mark	North Dakota
Lynk	Mike	North Dakota
Ressler	Mike	North Dakota SPOC
Guerrero	James	Northern Mariana Islands
Dela Cruz	Ray	Northern Mariana Islands
Guerrero	Joaquin	Northern Mariana Islands
Castle	Kelly	Ohio
Schmahl	Rick	Ohio
Davis	Stu	Ohio SPOC
Cassingham	Nikki	Oklahoma
Gherezgiher	Ben	Oklahoma SPOC
Lake	Adam	Oregon
Larsen	Karl	Oregon
Duyck	Mike	Oregon
Soloos	David	Oregon SPOC
Caudill	Holly	Pennsylvania
Judge	Joe	Pennsylvania
Neal	Scott	Pennsylvania
Georgia	Sean	Pennsylvania
Stackhouse	Diane	Pennsylvania SPOC
Crespo	Angel	Puerto Rico
Figueroa	Joel	Puerto Rico
Garrafa	Sally	Puerto Rico
Freiman	Stuart	Rhode Island
Guthlein	Tom	Rhode Island SPOC
Stock	Jeff	South Carolina
Steadman	Bob	South Carolina SPOC
Tooley	Matt	South Dakota
Waldner	Mike	South Dakota
Pierce	Jeff	South Dakota SPOC
Singley	Amy	Tennessee
Waye	Stephanie	Tennessee
Ehlert	Ehrin	Tennessee SPOC
Staples	Jared	Texas

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LAST	FIRST	AFFILIATION
McMillian	Jim	Texas
Jurens	Karla	Texas
Lin	Shing	Texas
Early	Todd	Texas SPOC
Clements	Harold	Utah
Coles	Gordy	Utah SPOC
LaValley	Terry	Vermont SPOC
Figaro	Khanisa	Virgin Islands
Molloy	Reuben	Virgin Islands SPOC
Werner	Charles	Virginia
Gagnon	Tom	Virginia
Thiel	Adam	Virginia SPOC
Osborn	Katrina	Washington
Westall	Shelley	Washington
Schrier	Bill	Washington SPOC
McCabe	G.E.	West Virginia
Gianato	Jimmy	West Virginia SPOC/PSAC-EC
Cagigal	David	Wisconsin
Boss	Molly	Wisconsin
Fortunato	Dennis	Wisconsin SPOC
Crumpton	Glen	Wyoming
Nickel	Mike	Wyoming
Babbitt	Troy	Wyoming SPOC
McEwen	Harlin	PSAC-EC Chair
Arredondo	Linda	PSAC Tribal Working Group Guest
Dyer	Dennis	PSAC Tribal Working Group
Flores	Richard	PSAC Tribal Working Group
Godfrey	Gerad	PSAC Tribal Working Group
Harris	Randell	PSAC Tribal Working Group
Hudson	Heather	PSAC Tribal Working Group
Kennedy	Raymond	PSAC Tribal Working Group
Melvin	Patrick	PSAC Tribal Working Group
Openshaw	Mark	PSAC Tribal Working Group
Stewart	J. Scott	PSAC Tribal Working Group
Wassel	Joe	Department of Defense
Chan	Serena	Department of Defense
Merritt	Nancy	Department of Justice
Heaps	Joe	Department of Justice/NIJ

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LAST	FIRST	AFFILIATION
Flaherty	Laurie	Department of Transportation
Rhoads	Dusty	DHS Office of Emergency Communications
Martinez	Gabe	DHS Office of Emergency Communications
McLain	Marty	DHS Office of Emergency Communications
Montanari	Pam	DHS Office of Emergency Communications
Dew	Rob	DHS Office of Emergency Communications
Safavian	Rasoul	FCC
Liu	Michelle	NIST
Wigglesworth	Samantha	NIST
Cox	Neil	FirstNet Board
Douglas	Jim	FirstNet Board
Johnson	Jeff	FirstNet Board
McGinnis	Kevin	FirstNet Board
Stanek	Richard	FirstNet Board
Takai	Teri	FirstNet Board
Algiere	Christopher	FirstNet
Bratcher	Jeff	FirstNet
Buchanan	Dave	FirstNet
Caswell	Teri	FirstNet
Cook	David	FirstNet
Dean	Stephen	FirstNet
Delaney	Drew	FirstNet
Dickson	Lesia	FirstNet
Geisler	Adam	FirstNet
Golaszewski	Mark	FirstNet
Green	Kevin	FirstNet
Harder	Douglas	FirstNet
Harder	Jennifer	FirstNet
Hilliard	Amanda	FirstNet
Hinkle	Bill	FirstNet
Hobson	Brian	FirstNet
Hunt	John	FirstNet
Kassa	Brian	FirstNet
Kennedy	Jeanette	FirstNet
Kennedy	TJ	FirstNet
King	Jeff	FirstNet
Lee	Vicki	FirstNet
Leitch	Barry	FirstNet

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LAST	FIRST	AFFILIATION
Martinet	Joe	FirstNet
Marutiak	David	FirstNet
Miler-Waring	Jacque	FirstNet
Mitchell	James	FirstNet
Muhr	Margaret	FirstNet
Murdock	Tracey	FirstNet
Nallappa	Bhashyam	FirstNet
Noel	Steve	FirstNet
Oremland	Ryan	FirstNet
Parkinson	Ed	FirstNet
Pereira	Amanda	FirstNet
Pierce	Tim	FirstNet
Posner	Jeff	FirstNet
Poth	Mike	FirstNet
Rached	Peter	FirstNet
Rachidi	Mustapha	FirstNet
Rajan	Rajan	FirstNet
Rebstock	Carl	FirstNet
Reed	Rich	FirstNet
Richardson	Kyle	FirstNet
Shore	Justin	FirstNet
Shull	Thomas	FirstNet
Smith	Steve	FirstNet
Southard	Loren	FirstNet
Stone	Lori	FirstNet
Tomczak	Pete	FirstNet
Trejo-Reyes	Erickson	FirstNet
Varney	Michael	FirstNet
Vinson	Jamel	FirstNet
Walker	Genevieve	FirstNet
Wayne	Claudia	FirstNet
Whitacre	Charlotte	FirstNet
Wilde	Kristi	FirstNet
Williams	Brent	FirstNet
Worrell	Mike	FirstNet
Zollo	Jeremy	FirstNet
Anderson	Mark	FirstNet Support
Brinkman	Ethan	FirstNet Support

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LAST	FIRST	AFFILIATION
Burrall	Anna	FirstNet Support
Ferraro	Larry	FirstNet Support
Fletcher	Kristen	FirstNet Support
Green	Keil	FirstNet Support
Lyons	Kate	FirstNet Support
Potter	Jessica	FirstNet Support
Richardson	Tara	FirstNet Support
Stylianou	Mario	FirstNet Support
Sutliff	Usha	FirstNet Support
Ugarte	Nicole	FirstNet Support
Younger	Karlin	FirstNet Support
Zentay	Susan	FirstNet Support
Dunn	Carolyn	NTIA
MacBride	Marsha	NTIA
Mason	Daniel	NTIA
Miyamoto	Yuki	NTIA
Pettus	Laura	NTIA
Phythyon	Dan	NTIA
Sullivan	Patrick	NTIA
Brodell	Arleta	NITA Support
Gallaher	Clare	NTIA Support
Benson	Jeb	PSCR
Jani	Vihang	PSCR
McElvaney	Tracy	PSCR
Orr	Dereck	PSCR
Walton	Chris	PSCR
Nuñez	Emily	PSCR Support