

FirstNet in California

FirstNet State Plan Review Meeting – Van Nuys, CA

July 7, 2017

The California Governor's Office of Emergency Services held a FirstNet State Plan Review Meeting at the Airtel Plaza Hotel in Van Nuys on July 7 with approximately 70 attendees signed in.

Welcome and Introductions

Patrick Mallon, California FirstNet Single Point of Contact (SPOC), Cal OES Public Safety Communications Assistant Director.

- Purpose: Present FirstNet's state plan for California and solicit feedback.
 - Q and A session.
 - Recorded for viewing later on the California First Responder Net (CalFRN) website.
- Comments are due to FirstNet the first week of August.

FirstNet Update

Kevin Nida, FirstNet Region lead for CA.

- FirstNet overview. FirstNet is more than just a broadband network. It's the first broadband network by public safety for public safety.
- Extremely important to provide comments. Use state portal.
- With AT&T partnership, FirstNet takes a large broadband network, adds sites, adds Band 14, and makes it public safety grade.
 - Adds 20 MHz of spectrum to AT&T as well as priority and preemption.
 - Program management is key to meeting milestones over the five-year deployment.
 - AT&T brings a \$180B network, telecommunications and site experience, secured network, technology and innovation experience.
 - Adds to an existing network instead of building greenfield network.
- FirstNet is committed to listening to public safety and getting it done right. Important to give state input on coverage for correct input to state plan.
- Discussed core design principles.
- Important to leverage economy of scale with procurements such as with AT&T.
- **Design principles.** First step to success is getting an opt-in. AT&T and FirstNet must still then earn public safety's business and offer better coverage.
- **Solutions overview.** Committed to 97% population coverage. Committed to using 40,000 existing AT&T hotspots.
 - Discussed use of deployable site assets to fill temporary coverage holes.
 - Plan to use existing AT&T distributed antenna systems (DAS).
 - Rate plans to be negotiated and competitive.

- **Bring Your Own Device (BYOD).** If technically possible to use user-owned devices on AT&T, then the devices will be allowed. If already an AT&T device, then FirstNet is accommodated immediately. Committed to competitive plans.
- Not designed to replace land mobile radio (LMR)! FirstNet push-to-talk (PTT) on a smartphone and simplex is not a substitute. Can be cross-connected with FirstNet in future to enhance LMR systems-one more tool in the toolbox.
- **Priority and Preemption.** Available now for data and Voice over Long Term Evolution (VoLTE) voice. Mission critical voice preemption in Third Generation Partnership Project (3GPP) standard is expected in one year.
- **Identity, Credential and Access Management (ICAM).** System to allow single sign-on across all applications and local control.
- **Local Control.** Web tool will provide network status with mapping, managing user rate plan, priority levels, PTT groups, ICAM authorizations, and others.
- **Training.** User training programs 24x7 for app training.
- **Preemption.** Not expected to occur much for public safety. Offloading public traffic to non-public safety band is one concept. Preemption plan still being worked on.
- FirstNet is still in the consultation phase. Coverage is the big issue. Need public safety user input for decision. Once FirstNet has opt-in from the State, it “can really get moving.”
- **Takeaways.**
 - State plan is designed to provide comprehensive information, but cannot answer every question.
 - Focused on date needed to make decision.
 - SPOC has critical role in consolidating and prioritizing feedback.
 - Consultation to continue through state plan, delivery, and beyond.

The Role of Cal OES

Pat Mallon, CA SPOC, Cal OES PSC Assistant Director

- CalFRN mission and actions were explained. A broad base of public safety representation to include state, local, and tribal input is needed to best to determine California’s needs.
- Described how California FirstNet priorities were developed through prior outreach process.
- In process of finalizing request for proposal (RFP) template for opt-out to not lose time if needed.
- Public safety stakeholders are most important part of CalFRN.
- State plan to be delivered back to Governor in last part of September.
- CalFRN processed long list of priorities to develop California’s top priorities to include:
 - **Coverage**
 - Significant portion of rural and tribal land is underserved.
 - High-rise coverage is big issue.
 - Border coverage is a big issue.
 - **Network**
 - Concern for how public safety will get data to the network – particularly to serve video.

- Resilience in natural disaster, cybersecurity, and service availability are also concerns.
- The Los Angeles Regional Interoperable Communications System (LA-RICS) has 70 sites up now. Cal OES wants to ensure those efforts are not wasted.
- **Cost & Services**
 - Access to Criminal Justice Information System (CJIS) is big concern.
 - Cost must be competitive.
 - Users should try to buy Band 14 capable equipment if possible, regardless of Radio Access Network (RAN) provider.
- Stressed critical need to get public safety user feedback quickly to provide adequate feedback to FirstNet for the state plan.

AT&T Public Safety Broadband Network Service

Scott Andrews, AT&T product and offering overview.

- Upon opt-in, FirstNet access in California via AT&T network begins immediately.
- 64,000 sites nationwide with 40,000 hotspots.
- Pledge of \$40B additional investment to FirstNet network.
- Preemption availability estimated 4Q17.
- High reliability at primary sites including generator. All sites have battery backup of 4-hour standard, and are moving to 8 hours to meet FirstNet mission.
- Over 300 trailer mounted generators for sites without generator.
- AT&T has three network operations centers (NOCs) nationwide.
- Quality of Service, Priority and Preemption (QPP) explained.
- Described three priority levels.
 - 1- Primary (Law Enforcement (LE), Fire, Emergency Medical Services (EMS), Emergency Management Agencies (EMA)) is automatic.
 - 2 - Extended Primary (Hospital, Utility, Transportation, Public Works) December 2017.
 - 3 – Volunteer. If serving in LE/Fire role, then treated like a primary user.
- Priority access of up to 170 MHz spectrum, making all of AT&T's spectrum available to public safety users.
- No waiting necessary for Band 14 to be available after opt-in. Don't need to buy new Band 14 devices to get FirstNet benefits.
- Local Control Tool. Allows entities to assign a specified "Incident Level" given priority to specific FirstNet users. Working with AT&T roaming partners, such as in the Midwest, to allow priority options provisioning for FirstNet roamers.
- Local Control. Ability to monitor network geographically, gives real-time situational awareness. Ability to generate trouble tickets. Enable / disable devices directly.
- Public safety network access application program interface (API) available from AT&T. Agency computer aided dispatch (CAD) interface to FirstNet would be same way as current cellular network interface today. AT&T offers Private Mobile Connection – utilizes static or dynamic IP addresses, provides secure network to mobile clients.

- Coverage. Coverage plot is based upon -98 dBm RSL downlink (indoor) / -110 dBm RSL (outdoor). AT&T is taking coverage very seriously. See coverage is secure portal for better detail.
- Reviewed deployable assets. If an agency has Band 14-capable mobile equipment they would consider homing onto the FirstNet core, AT&T is willing to talk about deploying on the FirstNet Network.
- Emphasized Disaster Recovery Program team is dedicated full-time to mission. Full-time dedicated employees and dedicated 300+ vehicles.
- Presented deployable examples. Drones in test currently.
- If agencies are interested in purchasing deployable sites, AT&T is willing to share configurations being built up currently by General Dynamics.

Shane Harper, AT&T FirstNet Sales Manager (Region 9)

- Working on pricing to current contracts, such as National Association of State Procurement Officers (NASPO).
- Further discounts will be available for those who join negotiated pricing contracts.
- Discussed pooled plans numbers.
- Distinctions in static options of priority for extended priority users is still evolving.

Barb Winn, AT&T External Affairs Director

- Emphasized that public safety stakeholder comments on coverage are critical prior to opt-in. Requested users send Latitude-Longitude or area descriptions of coverage holes directly to her in addition to providing them to Cal OES in the FirstNet outreach comment process.
- Provide coverage comments at:
 - Email bw1513@att.com
 - Phone: 916-541-9962

Questions and Answers / Public Comment

- Q: Who gets to set priority – AT&T or agency? *A: (Scott Andrews (SA)) Three static priority levels are set by agency. Priority levels can also be elevated for incidents. CalFRN has talked about how to manage the hierarchy of setting priorities. Priority levels are set by local control.*
- Q: Will Band 14 be exclusive use for public safety? *A: (SA) No, Band 14 is another part of overall network design. Instead of public safety only having access to 20 MHz, it has access to all AT&T spectrum. AT&T is deemphasizing a Band 14-only discussion and wants users to think access to entire AT&T licensed spectrum. By using entire AT&T network, public safety gets speed to deployment, lower access costs, and economy of scale.*
- Q: Can an entity still negotiate with FirstNet the ability to lease assets where AT&T has no coverage and could use the site asset to provide such coverage? *A: (SA) Yes, if infrastructure is in place it makes good sense to look at it. (Winn) We are asking public safety stakeholders to provide information on those holes immediately.*
- Q: Are you going to take my LMR radio away and replace with FirstNet? *A: (SA). No, we are talking about delivering mission-critical data, not voice. There may come a day where users may feel comfortable with that. The 3GPPP is working on a voice priority standard also.*

- Q: (Venture Co. Fire – Norris) (1) In areas without broadband coverage now (i.e., National Forrest areas in Ventura), how can your devices integrate with analog service? (2) Will we get devices that can communicate in direct mode? A: (SA) *There are applications now that do PTT across networks. Some agencies have moved non-essential users to this app and tied them back to their home LMR system. This is something AT&T is moving forward with for non-critical users. Eventually you will see LMR devices with Band 14 broadband radios added. (PM) Motorola and Harris are developing radios with Band 14 component, and capability to do VoLTE interface to LMR. Lab in Colorado is also working on an off-network device (one-to-many) solution. LMR systems are not going away in the US any time soon.*
- Q: (Allan Tilles -representing LA SO) Does FirstNet / AT&T look at existing site assets for providing service, or does AT&T look at the agency providing an asset to FirstNet giving agency an offset of cost for service? A: (SA) *Can't speculate because this is a financial decision, but guess this would make sense. (Pat Mallon) The benchmark costs are set by AT&T, but users and contracting agencies can negotiate lower rates. (Barb Winn) Regarding the discount for an agency for bringing a tower or lease asset (for example) would be done site-by-site and negotiated by AT&T - not FirstNet.*
- Q: What is band option for a new build site in areas with no AT&T coverage? A: (SA) *In a greenfield site, if Band 14 is built, there will also likely be commercial spectrum added too. Scott needs to confirm with RF network team to clarify if Band 14 only sites will be built if greenfield.*
- Q: What is planned to move subscribers to new Band 14 devices with manufacturers? A: (SA) *AT&T is working with major manufacturers to get viable equipment migration plan to Band 14 capabilities.*
- Q: When will preemption and priority become available? A: (SA) *Pre-emption by December 2017. When Band 14 is stood up, the Level 1, 2, and 3 priority functions will get stood up (that level of priority requires the Band 14 core to be active).*
- Q: If I deploy my users to another network for mutual aid with FirstNet devices, will their home priority options be recognized? A: (SA) *Yes, because the core serves nationwide, priority settings will follow.*
- Q: Can agencies see site loading via Local Control? A: *Scott Andrews will investigate further.*
- Q: How will preemption priorities be determined? A: (Kevin Nida) *If all are priority 1, then there is no priority. Priority should not be a big problem given the overlap of sites and sectors serving most areas. FirstNet must get better data to better determine priority recommendations. Can be possibly gleaned from the Association of Public-Safety Communications Officials (APCO), other industry associations.*
- Q: (Ventura Co. Fire) If California opts in, what is Cal OES' role in governance such as with managing priorities? A: (PM) *OES has proposed role continuing to help coordinate activities during events, such as the recent Oroville Dam incident. It's up to the legislature and governor to ratify recommendation. There is a continuing need for Cal OES to manage relationship between state agencies and FirstNet / AT&T. Cal OES is not likely to play a role at setting priorities at the local level – only becomes a state problem when it is a multijurisdictional incident. There is no statutory requirement that Cal OES assume a governance role. Cal OES could assist in getting sites built on state assets.*

- Q: Is there any interest in states having role in FirstNet buildout where opted in? Asking this because there is a concern from local agencies that after opting in there would be little power by state or local agencies to influence this nationally managed system. *A: (Kevin Nida) That would likely be a FirstNet decision. It's one of the things the Governor must consider when opting in. Barb Winn emphasized penalties will occur if coverage is not provided per contract. This will be a 25-year project between FirstNet, AT&T, and California.*
- Q: Who is the decision-maker when an agency states that coverage is a must, but AT&T feels it's not feasible? *A: (KN) FirstNet is the decision-maker. Contractually "the buck stops with FirstNet." FirstNet considers the public safety stakeholder to be the customer. FirstNet will make sure the 25-year relationship meets public safety needs – FirstNet is not concerned with commercial interests. FirstNet is concerned providing coverage to meet public safety needs.*
- Q: Can we request specific coverage map for specific areas to determine if our needs will be met (example was LAX indoor coverage). The coverage map provided now doesn't have that detail. *A: (SA) We can work with our RAN team to develop maps and have conversations in different settings – noted this is all proprietary information.*
- Q: What does the legislation require on a state and local level? *A: (PM) There will be no changes mandated to LMR systems. The enabling legislation for FirstNet requires a nationwide public safety broadband network. FirstNet partnered with AT&T to do this in opt-in states. If the state opts out, state must build RAN to connect to FirstNet core. State can build on its own RAN, or can enter another public-private partnership to build RAN on Band 14 at the expense of state or partnership. There are some grant funds available for state-built RAN. Such a state RAN network plan must be approved by Federal Communications Commission (FCC). Agencies are not mandated to buy any FirstNet plans – FirstNet just provides more alternatives.*
- Q: What are you asking from us (agencies) today? *A: (PM) We need your feedback on what you heard today and your priorities on coverage. What feedback you provide us today is essential to providing feedback to FirstNet by August 4th.*
- Q: So you are not going to individual agencies to give an individual "yes or no"? *A: (PM) No we are not.*
- Q: Why should we then use FirstNet if it's just another carrier option? *A: (SA) We must work to win your business from the competition through pricing, coverage, priority, applications, support, etc.*
- Q: What does priority give a user? *A: (SA) Priority gives user top of queue.*
- Q: Will priority eliminate need for WPS (wireless priority service)? *A: (SA) No, only VoLTE calls get priority in FirstNet.*
- Q: Will Scenario 1 (price options presented) be the normal public safety user, and Scenario 2 normally be the extended primary user, and can the extended primary user be uplifted to a primary user based on incident needs? *A: (SA) Yes. Remember that QoS is standard offering in the pricing for a primary users.*
- Ventura Co. Fire feels very strongly that FirstNet must cover the forest areas or users will not come.

Next Steps

Pat Mallon

- Comments are critical and please provide soon.
- Presented timeline of submissions, and next steps for Governor.
- Provided new meeting schedules.

Meeting adjourned.