

STATEWIDE EMERGENCY COMMUNICATIONS BOARD

INTEROPERABLE DATA COMMITTEE

April 21, 2014
Chair: Mike Risvold

ATTENDANCE

Jackie Mines	Dept. of Public Safety	
Jim Johnson	MN IT Services	Ullas Kamath
Jim Mohn/Tim Lee	Dept. of Transportation	
Victor Wanchena	Dept. of Corrections	Cari Gerlicher
Thomas Humphrey	Metropolitan Council	Vince Pellegrin
Brian Askin	Dept. of Natural Resources	
Steve Bluml	Minnesota State Patrol	Tim Boyer
John Hyde	Minnesota Sheriffs' Association	
Michael Risvold, CHAIR	Minnesota Police Chiefs' Association	
Vacant	Minnesota Fire Chiefs' Association	
Mary Borst	Minnesota Ambulance Association	
Vacant	League of Minnesota Cities	
Tina Lindquist	HESM Region 4	
Dave Deal	Association of Minnesota Counties	
Vacant	Minnesota Indian Affairs Council	Vacant
Jake Thompson	Metropolitan Emergency Services Board	Rod Olson
Kristen Lahr	Central Emergency Services Board	Dean Wrobbel
Brian Zastoupil	Northwest Emergency Communications Board	Beryl Wernberg
Bruce Hegrenes	Northeast Emergency Communications Board	Monte Fronk
Brad Milbrath	South Central Emergency Communications Board	Andy Buckmeier
Rick Freshwater	Southeast Emergency Communications Board	Dave Pike
Stacy Tufto	Southwest Emergency Communications Board	Vacant

ALSO ATTENDING

Carol Salmon, ECN
Cathy Anderson, ECN
Rubin Walker, ECN
Rick Juth, ECN
Brandon Abley, Televate
Rick Burke, Televate
Ken Boley, Televate
Joe Reichstadt, Metro Council
Kathy Nelson, Great River Energy

CALL TO ORDER

Chair Risvold calls the meeting to order at 10:06 a.m.

APPROVAL OF AGENDA

Chair would like to add to the agenda a discussion of FirstNet FAQs on the Use of State and Local Infrastructure, Rural Coverage, “Early Builders” and Pilots, as submitted by Rubin Walker.

Steve Bluml moves to approve the agenda as amended.

Bruce Hegrenes seconds.

Motion carries.

MOVES TO APPROVE PREVIOUS MINUTES

Minutes submitted too late for review so will be considered next month.

ACTION ITEMS

- **Draft MN Comments in response to FirstNet Second Notice**

Mines introduces asks Ken Boley and Brandon Abley to review the FirstNet Second Public Notice and Minnesota’s draft response. Jackie Mines adds that the committee’s feedback is encouraged and emphasizes that this is a good opportunity to give feedback to FirstNet’s process.

Ken Boley reports that the purpose of the FirstNet second notice is for FirstNet to describe what it thinks are the boundaries of its legal authority under the Middle Class Tax Relief and Job Creation Act of 2012 particularly with regard to how it treats the states which choose to opt-out of FirstNet.

Boley explains that the theme of the Second Notice is largely one where FirstNet is describing the importance to a national approach of making sure that all states opt-in so that FirstNet able to use the entire scope of the country in order to build a nationwide business model that is sustainable. Obviously, in a nationwide model, some states will make more money from commercial use of the excess network capacity than others. The more densely populated urbanized states will essentially be the payer states and the less densely populated, rural states with be the payee states. Because of that, FirstNet says it recognizes that some states may wish to opt out because they think they will be able to raise additional funds and don’t want to be payer states or don’t want to provide as great a subsidy as FirstNet would like them to provide. FirstNet’s approach under the Second Notice is largely one of describing FirstNet’s statutory authority in terms of how it may be able to require opt-out states to provide that subsidy to FirstNet.

There is a summary in the beginning of Minnesota’s draft response, as presented in the meeting materials, which lists seven key points.

Boley explains that the act is the product of a compromise between the Senate which wanted a nationalized federally implemented network with no opt-out option and the House which had an entirely local and state centric approach where the state and locals would each get grant funding and build their own piece of the network. The two versions went to conference and the result was the act we have today which is basically a national federally centralized approach with an opt-out provision.

The first key point Minnesota makes is that Congress did this on purpose and FirstNet can't effectively negate the importance of the opt-out provision simply by interpreting the act to allow FirstNet to deprive an opt-out state of the benefits of its opt-out decision.

Boley continues with the second key point. The Notice the process under the act is that FirstNet presents a state plan and then the governor has 90 days to decide whether or not to accept that state plan and participate in the FirstNet network or opt-out. Then the governor has 180 days to complete the RFP process and develop an alternative plan. By statute FirstNet has to give a state plan but is constrained because in order to set this up properly FirstNet wants to know which states are in and which states are out. FirstNet would like to go to its vendors with that information to develop contracts. So FirstNet won't actually have contracts at the time it gives the states the state plan. FirstNet says ideally it would be able to give states lots of data and detail and commitment but because it won't have its vendor contracts locked down yet, it doesn't have to give and may not give states as much detail as states would like. The state plan itself is just a plan—it's not a contract and it's not binding. That raised a bit of a flag because the governor is dependent on the state plan in deciding to opt-in. Minnesota's second key point is that the governor needs detail and certainty in the state plan so it's got to have commitments, it's got to be reliable, and it's got to have detail so he can compare it to a state-developed alternative plan to decide which is the right way to go. One of the things we suggested is to not rush the state plan process if it means denying the governor enough certainty and information to make a responsible opt-in decision. That is key point number two.

Key point number three: In the Second Notice, FirstNet says that the governor's right to opt-in or opt-out has to be meaningful. In our response, we make the point that in order to be meaningful the decision to opt-out must actually mean what it says in the statute which means a decision to not participate in the FirstNet roll out. The governor would be saying the state will do it itself. That gets to the question of subsidization. FirstNet says in the Notice that it thinks it has the authority to require opt-out states to pay to FirstNet any excess revenues it earns over its costs, even if that state has opted-out. FirstNet is saying that if the opt-out state is able to generate revenues beyond its cost, FirstNet can require that state to pay those revenues to FirstNet so FirstNet can use them to subsidize the rest of FirstNet's build out. We say in our response that Minnesota would be willing to negotiate the amount that it would share if it were to opt-out but there is no authority in the Act for FirstNet to require an opt-out state to do that. In order for an opt-out state to opt-out it needs to get a spectrum lease from FirstNet. What FirstNet says in the Notice is that it can require, in the spectrum lease, that the opt-out state commit to sharing its revenues. We make the point that the statute says if the governor decides not to participate how does FirstNet reconcile a decision not to participate with a requirement that the opt-out state still has to subsidize. That is point number three—that in order to maintain the meaningful right of the governor to opt-out FirstNet should not require an opt-out state to subsidize the rest of the national build out.

Risvold asks if the statute is silent on subsidy. Boley says it is. FirstNet put it in because they recognize the importance of subsidy for a nationwide program. He gives the example of rolling out electricity to rural states. The difference is that in this act there is an explicit option for states to opt-out. FirstNet is saying yes you have that option but we can require you to give up a lot of the benefit of that decision.

Key point number four --the mechanism FirstNet plans to use is its control of the spectrum. FirstNet controls an essential element to any opt-out state-- the spectrum. It has to give a spectrum lease to the opt-out state for that state to fulfill the purpose of the Act which is to build the network. By saying that it can require an opt-out state to provide cost subsidy as an element of the spectrum lease FirstNet is leveraging its outsized bargaining power. The

MN Supreme Court has ruled on this in the context of the oil company cases where an oil company tells a service station owner you have to agree to this term or we won't provide you with oil and we will kick you off the property (from the 70s energy crisis). The service station owner has no alternative but to sign. This is a similar scenario here. If an opt-out state were to enter into a lease negotiation with FirstNet and FirstNet were to say you have to subsidize the rest of the country the opt-out state couldn't say no because then they wouldn't have the spectrum. We say in our response that FirstNet can't use its outsized bargaining power to extract financial concessions.

Brandon Abley emphasizes that existing case law shows that it is not fair or acceptable to use outsized bargaining power and that kind of contract is unenforceable. The state's right to opt-out is designed as an incentive to FirstNet to ensure that we build a good plan together. By undermining the state's right to opt-out there is not so much meaning to developing a plan together in the first place.

Boley continues that the key point number five is closely related. What FirstNet says in the notice is that the Act isn't explicit here to give us a certain authority and so we are going to interpret the act in a way that gives us authority through another mechanism. It boils down largely to the question of subsidy. One of their proposed ways of extracting concessions is through network policies and the other is through cost-effectiveness inquiry. The Act says FirstNet has to develop network policies, which are not terribly well-defined, but things like interoperability requirements, technical requirements, and operational requirements. Some of which make sense for everybody—including opt-out states—to comply with and some of which probably don't. The notice suggests that those network policies apply to opt-out states just as to opt-in states and that they can be used essentially to impose upon opt-out states a requirement for the subsidy. Our response says that some of the policies make sense and some don't. FirstNet can't use the network policies to create an authority that Congress didn't include and that would trample on the governor's right to opt-out. Same is true of the cost-effectiveness argument. In the process of opting-out, a state develops an alternative plan and NTIA determines whether or not that plan is cost-effective. Even though a governor will interpret what is cost effective for the state, what FirstNet says is that cost-effectiveness has to be determined based upon whether or not it is cost effective for the country. If an opt-out state generates revenues but doesn't share 100% of them with FirstNet that would be less cost-effective from FirstNet's perspective than if the state was required to share all of them. We make the point that the governor's right to opt-out has to be meaningful and FirstNet should not interpret the Act to create its own authority to mitigate the value of that right.

Key point number six is about opt-out states that don't succeed. What if a state opts out and is not successful in making the showings it needs to make to the FCC for interoperability, and to NTIA for, among other things, cost effectiveness? What FirstNet says in the notice is if a state opts out within 90 days and if the state's plan demonstrates to the FCC's satisfaction that the network will be interoperable, then the state has officially opted-out. It is only at that point, after the FCC approves it, that the state has effectively opted-out. And at the point, according to the Public Notice, FirstNet no longer has an obligation to build out in that state. However, FirstNet recognizes in the notice that there are other places along the way that the opt-out effort may fail. For example, if an opt-out state gets past the FCC and then gets to NTIA and is trying to negotiate a spectrum lease and the spectrum lease effort fails. What happens? According to the Notice, FirstNet may build in that state but it doesn't have to. Our response says it is possible that an opt-out effort may fail after the FCC approves the plan and we say FirstNet MUST build in that state—even in a failed opt-out state—because its obligation is to build out to the whole country.

Brandon Abley adds that FirstNet is not saying it is going to do this but it is interpreting the law. The public notice says if a state opts-out and then isn't successful, FirstNet says under the act it would appear that they no longer have an obligation to ensure service in that state. Boley's interpretation of the law is that the act mandates that FirstNet ensures that service gets to every state and that the opt-out provision is there to as a tool to ensure that service gets to every state. Realistically it seems unlikely that FirstNet would abandon a state and Abley doesn't think FirstNet is trying to communicate any intent to do so, it is just interpreting the law to say that it would appear that it could.

Mines points out that it is important that the interpretation holds up long term and through subsequent administrations due to the length of time it will take to build out this network. Even if the assumption is that FirstNet would not do this, the interpretation should be very clear about what is and is not allowed.

Abley gives an overview of the last point. Key point number seven is that FirstNet's second public notice is bad for its brand. FirstNet has been doing much better recently with the perception of its brand. But we say that if you really read through the legalize of the Second Public Notice –it doesn't come across well. The general theme is that FirstNet is saying that a state's plan is not a guarantee and not a contract and that FirstNet can use its control of the spectrum to force some policies and ensure some consistency nationwide, and in some cases eliminate some of the states' bargaining power. They make the consultation process seem not very important because we are doing this consultation to develop a plan that the governor is supposed to make a decision about but the plan doesn't represent any commitments and it's not a guaranty. It raises the question what the consultation process is for if this is how FirstNet interprets the Act. That's not really good for the brand. Some of the authority that FirstNet is interpreting that it has--in some cases the legal reasoning is not good--but even generally by interpreting away some of its responsibilities under the act and its commitment to the states—that's not really good for FirstNet's stakeholders. And that's not really good for the relationships with state officials that FirstNet depends upon to build its brand. In Minnesota, for example, most of the impression you have about FirstNet comes from the state's team. The stakeholders have very little actual engagement with FirstNet. How the states' stakeholders interpret FirstNet's Public Notice is very important. We include words of caution about this at the end of our response in key point number seven.

Steve Bluml says he was very impressed by the document and thinks it could have gone even further in the strong opinion that having this all laid out in advance is important. Not just for the governor to make a decision but also for large law enforcement agencies that are going to make up a large percentage of the users. Before they know if they are going to sign on for this versus what they are using today they are going to have to have much better information. He was glad to see the detail in the report and thinks it is important for FirstNet to hear this and thanks the team for the work.

Mines also thanks Boley and Abley for the review. She states that she appreciates the legal understanding that Boley brings to the review, highlighting the inconsistencies of FirstNet's interpretation. Overall for this project to be a success and for people to have trust it is important for the state plan process to be viable and take into consideration the work we have done and the feedback we provide. She understands that FirstNet interpreted this as it did because of the need rural states have for the urban states to help fund this network but from a legal interpretation the inconsistencies are very important to highlight and could cause trouble down the line.

Abley says FirstNet says it is interpreting the act the way they are because they are concerned that the larger more urban states will opt out and not fund the more rural states. That's good intent but that is not what the law says. If you look at the legislative history you can also see that this is not what the members of Congress who wrote the law intended either. Minnesota is in a good position to comment because we are right in the middle in terms of whether we would be a good candidate for opting-out so we do not have an agenda for advocating for one approach or the other. That makes our interpretation significant in the grand scheme of things.

Chair Risvold clarifies that we are looking for a motion to approve this document to forward to the SECB for approval to submit to FirstNet.

Hegrenes moves to forward the report to the SECB.

Dave Deal seconds.

Motion carries.

- **MN SECB Resolution Language for Fees Collected from Public Safety Wireless Broadband Network**

Mines introduces the resolution as presented in the meeting materials. She says if MN were to opt-out, it would be important to dedicate the user fees back to the network. We would like to strengthen our Public Notice position with a resolution brought forward to the SECB that states that we would reinvest user fees back into the network. This is what we have done historically with 911 and ARMER fees. We would like to include this resolution with our Response to the Public Notice stating that the SECB would not approve of any opt-out plan that diverts opt-out revenues to any purposes except for sustaining construction, operation and maintenance of the nationwide public safety broadband network.

Bluml moves to adopt the resolution to forward to the SECB for approval.

Hurrah seconds.

Hegrenes asks about the last sentence—should it say “in Minnesota.”

Discussion about whether to add “in Minnesota.”

Bluml and Hurrah agree to accept a friendly amendment to add “in Minnesota” to the last sentence.

Motion carries.

DISCUSSION ITEMS

- MnFCP Status Report Week of April 13, 2014

Mines gives a brief overview of the report as presented in the meeting materials. Good progress is being made and significant information is coming in.

Abley adds that the user population survey is where we are getting a lot of information about the sustainability of FirstNet’s plan. There have been really good responses in some places and poor response in about half the state. He asks committee members to encourage their agencies to participate in the survey. There is only about another month to get the information and these numbers will be important for our sustainability recommendations. The map included in the meeting materials shows which areas have not had a big response.

- FAQ on the Use of State and Local Infrastructure, Rural Coverage, “Early Builders” and Pilots

Rubin Walker introduces the document as presented in the meeting materials. He notes Minnesota is doing its own pilot project in collaboration with the private sector and will give a demonstration at the Interop Conference.

Meeting adjourns at 11:14 am.

STATEWIDE EMERGENCY COMMUNICATIONS BOARD

INTEROPERABLE DATA COMMITTEE

May 19, 2014
Chair: Mike Risvold

ATTENDANCE

Jackie Mines	Dept. of Public Safety	Rubin Walker
Jim Johnson	MN IT Services	Ullas Kamath
Jim Mohn/Tim Lee	Dept. of Transportation	
Victor Wanchena	Dept. of Corrections	Cari Gerlicher
Thomas Humphrey	Metropolitan Council	Vince Pellegrin
Brian Askin	Dept. of Natural Resources	
Steve Bluml	Minnesota State Patrol	Tim Boyer
John Hyde	Minnesota Sheriffs' Association	
Michael Risvold, CHAIR	Minnesota Police Chiefs' Association	
Vacant	Minnesota Fire Chiefs' Association	
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Bruce Hegrenes	Northeast Emergency Communications Board	Monte Fronk
Brad Milbrath	South Central Emergency Communications Board	Andy Buckmeier
Rick Freshwater	Southeast Emergency Communications Board	Dave Pike
Stacy Tufto	Southwest Emergency Communications Board	Vacant

ALSO ATTENDING

Carol Salmon, ECN
Cathy Anderson, ECN
Rubin Walker, ECN
Rick Juth, ECN
James Jarvis, OEC
Brandon Abley, Televate
Rick Burke, Televate
Joe Reichstadt, Metro Council
Angie Dickison, Lake County (NE)
Diane Wells, MN Office of Broadband

CALL TO ORDER

Chair Risvold calls the meeting to order at 10:05 a.m.

APPROVAL OF AGENDA

Dave Deal moves to approve the agenda.

Bruce Hegrenes seconds.

Motion carries.

APPROVAL OF PREVIOUS MINUTES

Dean Wrobbel moves to approve the April meeting minutes.

Deal seconds.

Motion carries.

ACTION ITEMS

- **RFI (Rubin Walker)**

Brandon Abley presents the Request for Information (RFI), as submitted in the meeting materials. He says it is a companion to the informal RFI that was published last summer. The point of the informal RFI was to gauge the level of interest in the vendor community. There was a very positive response and a lot of feedback from providers. In this formal RFI we are looking for alternatives from the commercial community that we can use to build our business and sustainability plan.

Abley reviews the information being sought as listed on pages 5-7 of the draft RFI. The information requested is:

- 1) An Executive Summary which describes the overall proposed solution;
- 2) Coverage information. Some of that might be provided under a non-disclosure agreement (NDA). In a formal RFI, a cellular carrier can, for example, give GIS data about a planned expansion to help make their case but state that this is non-public and can't be shared.
- 3) Quality of Service (QoS) --what would be the proposal for providing priority service to public safety users.
- 4) Network reliability and availability, such as generators at sites. In a formal RFI, carriers can give us the maps showing us where they have generators on the condition that we don't share that information.
- 5) Band class 14 (BC14) devices. Abley says we are really interested in leading market devices. If we could get some kind of response from major manufacturers saying that they do or don't have any plans to build devices that support this class either way would be useful information to include in our planning.
- 6) Operations. What level of service agreements (SLA) would the plan offer to public safety?

7) Security.

8) Business Model/ Partnerships. The proposal asks about any straight out business models or partnerships.

9) What would be the requirements to establishing a partnership?

10) Assets. Anything that would aid in building the network.

Abley says the remainder of the document is instructions.

Rubin Walker adds that because this information will be used to help inform the governor's opt-in/opt-out solution and because it is seeking public-private partnerships, this is not supported by SLIGP grant funding. He says we hope to get responses back by June/July. We would like input from the committee and from many different providers, from municipalities, and from any entity with information or suggestions on how to best build a network not built directly by FirstNet.

Chair Risvold asks Walker if he has a more definitive timeline. Walker responds that it has to be reviewed by the financial services department first and that hopefully it will be published in two weeks.

Abley says he is assuming it will be 30 days for questions, 60 days for response. He adds that when it goes into the state's department of administration the final dates are when it gets published in the state's register.

Chair Risvold clarifies that the goal now is to get input and pass it through this committee to the SECB to be published in two weeks.

Abley adds that in several weeks following the end date for the RFI, Televate can author a report for the committee.

Chair asks for input from the committee. He was concerned in a couple of areas about the proprietary information but then it was clarified that if the submission is completed properly information is well protected.

Abley responds that that is the reason for doing this as a formal RFI. The process is a little cumbersome but it provides full protection under Minnesota state law.

Wanchena moves to approve the draft RFI and present it to the SECB for review and approval.

Thompson seconds.

Motion carries.

Discussion items: none

Other business: none

Announcements: none

Meeting adjourns at 10:20 a.m.

STATEWIDE EMERGENCY COMMUNICATIONS BOARD

INTEROPERABLE DATA COMMITTEE

June 16, 2014
Chair: Mike Risvold

ATTENDANCE

Jackie Mines	Dept. of Public Safety	Rubin Walker
Jim Johnson	MN IT Services	Ullas Kamath
Jim Mohn/Tim Lee	Dept. of Transportation	
Victor Wanchena	Dept. of Corrections	Cari Gerlicher
Thomas Humphrey	Metropolitan Council	Vince Pellegrin
Brian Askin	Dept. of Natural Resources	
Steve Bluml	Minnesota State Patrol	Tim Boyer
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ALSO ATTENDING

Cathy Anderson, ECN
Rick Juth, ECN
Brandon Abley, Televate
Joe Reichstadt, Metropolitan Council

CALL TO ORDER

Director Mines calls the meeting to order in Chair Risvold's absence at 10:03 a.m.

APPROVAL OF AGENDA

Victor Wanchena moves to approve the agenda.

Dave Deal seconds.

Motion carries.

APPROVAL OF PREVIOUS MINUTES

Wanchena moves to approve the previous meeting minutes.

Bruce Hegrenes seconds.

Motion carries.

DISCUSSION ITEMS

- **RFI (Rubin Walker)**

Rubin Walker reports on Minnesota's Request for Information (RFI) which follows the more informal RFI put out last August. The goal is to gather input from vendors and agencies on how a FirstNet public-private partnership might operate and what a business plan might look like.

FirstNet put out a draft RFP that we responded to. We delayed working on the build-out strategy to concentrate on the RFP review.

The build-out workgroup is looking at eleven priorities to help shape how to recommend that FirstNet deploy in Minnesota. Some things being discussed are FirstNet's baseline coverage, defining key terms for coverage objectives, in-building and rural coverage, defining local county level coverage priorities and establishing metrics on how we'll track success through each phase of the build-out.

There are seven upcoming regional meetings as follows: in the Southeast on July 16; in the South Central on July 8; in the Southwest on July 22; in the Metro on July 28; in the Central on August 14; in the Northeast on July 23; in the Northwest on August 12.

Jackie Mines and Walker thank those who have been doing this work. It's involved a lot of time and effort from many people. Concerns and feedback are always welcome.

Mines reports that FirstNet's third public notice was regarding FirstNet's interpretation of a public safety entity. If anyone would like a copy of that response, contact Mines or Walker. It is also on the ECN website.

Mines attended the Public Safety Broadband Stakeholder meeting a couple weeks ago. Before the meeting there was a meeting of the FirstNet board. FirstNet staff presented to the board on the second notice --the interpretation of statutory language-- where we were strong in our response and not necessarily in total agreement like we were with the interpretation of a public safety entity.

The feedback given to the FirstNet board was that there was a total of 70 responses received from public safety, utility companies, tribal, vendors, states, private citizens, local government, commercial carriers and telecommunications associations-- with predominantly vendors, state and telecommunications associations responding. There were less than 5 in the other categories but close to 25 for both vendor and state. Telecommunications was close to 10. The interesting thing was they interpreted a lot of what was stated by the

responders as either “agreed” or “neutral” and noted very few disagreements. They stated the disagreements were mostly around statutory interpretation. For example, FirstNet might have one legal interpretation and we might have a different one. They categorized the negatives or the disagreements not as disagreements but more as neutral. In the cases where there was disagreement, about 45% of the responders had disagreed. Some states shared our concerns, including Washington, Ohio, Illinois, Florida and some east coast states. Generally speaking FirstNet responded pretty favorably or at least the staff reported it in the best possible light to the board.

Mines adds that when she gave this update to the Legislative Committee concern was raised about the fact that FirstNet was perhaps not taking our comments very seriously since they are not looking at them as direct disagreement but more as neutral comments. The Legislative Committee would like to send a letter to Minnesota’s federal legislators informing them that we have responded to FirstNet’s public notices and sharing our concerns. Mines asks IDC members if there is agreement, disagreement or any concerns or input or support the idea.

Consensus that there is support. Comments are:

I agree that it sounds like they didn’t take our concerns seriously, listing them as neutral – this should be brought to their attention. How this statute is interpreted will have a huge impact on our state and how beneficial the system will be to us. It sounds like a good starting point to send a letter to the legislators.

I agree and concur they need to be made aware of how grave the implications of some of this will be to the states participating.

In light of the fact that the some of the language got softened before it was submitted it’s important to follow up.

Mines says that the proposed letter will go in the SECB meeting packet to be considered by the SECB this week. She suggests that committee members might want to show their support by coming to the meeting or sending a note to Chair Dunaski. Sheriff Stanek who sits on the FirstNet board has resigned from the SECB in part due to our response to the second notice – he feels there is a conflict of interest. The Minnesota Sheriff’s Association will be assigning a new sheriff to represent the metro area. Not every board member was in approval of our public notice responses.

Mines adds that we have a responsibility as a board and as ECN to respond to FirstNet’s interpretations when the opportunity arises. Not everyone will agree to with everything we do. It was good to see that there were other states responding similarly. Only close to 25 states responded and about 24 vendors responded. We really need to be responding as states. Part of the problem is that there is not much time to respond. We’ve retained the staff of Televate and Ken Boley, their lawyer, is very familiar with the statutory language because he was involved with it when it was going through congress. Not everyone has that same level of support within their state. A lot of states are just hiring firms now for Phase 2 data collection.

Brandon Abley adds that not many states even have structured projects or a structured team or dedicated staff for this effort. Years after the grant funds went out we are still seeing states just starting to establish a formal office and project. To have an attorney file a legal brief, you need to have an attorney that’s knowledgeable and interested. Minnesota’s governance and stakeholder involvement is much better than anywhere else. A lot of states are not comfortable responding on behalf of stakeholders that they don’t have much engagement with. A number of states ask Mines what Minnesota plans to say. There are some states that are just not going to file on this anyway. He thinks 25 states is actually a pretty high participation rate.

Walker adds that short turn-around time given by FirstNet is a big impediment.

Abley agrees. We have an attorney that worked on this from a legal perspective but if you don't already have one on staff or that you can pay who specializes in this area, you don't have time to get one. FirstNet doesn't give people much notice.

Mines thanks everyone for their support and says she realizes we are engaging a lot of people in a short time and we are trying to figure out the best ways to do it. If you can participate here and there that is better than if you can't participate at all and we appreciate what you can contribute.

Discussion items: none

Other business: none

Announcements: none

Meeting adjourns at 10:31 a.m.

STATEWIDE EMERGENCY COMMUNICATIONS BOARD

INTEROPERABLE DATA COMMITTEE

July 21, 2014
Chair: Mike Risvold

ATTENDANCE

Jackie Mines	Dept. of Public Safety	Rubin Walker
Jim Johnson	MN IT Services	Ullas Kamath
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Vacant	Minnesota Indian Affairs Council	Vacant
Jake Thompson	Metropolitan Emergency Services Board	Rod Olson
Kristen Lahr	Central Emergency Services Board	Dean Wrobbel/Paul McIntyre
Brian Zastoupil	Northwest Emergency Communications Board	Beryl Wernberg
Bruce Hegrenes	Northeast Emergency Communications Board	Monte Fronk
Brad Milbrath	South Central Emergency Communications Board	Andy Buckmeier
Rick Freshwater	Southeast Emergency Communications Board	Dave Pike
Stacy Tufto	Southwest Emergency Communications Board	Vacant

ALSO ATTENDING

Rick Juth, ECN
Jim Stromberg, ECN
John Vavruska, Hennepin County
Joe Ross, Televate
Jeff Chandler, Televate
Brandon Abley, Televate
Mike Fink, Motorola

CALL TO ORDER

Chair calls meeting to order at 11:00 a.m. A quorum is obtained a short time later.

APPROVAL OF AGENDA

Bruce Hegrenes moves to approve the agenda.

Victor Wanchena seconds.

Motion carries.

APPROVAL OF PREVIOUS MINUTES

Approval of previous minutes is deferred to next meeting.

DISCUSSION ITEMS

- **Draft RFP (Joe Ross)**

Jackie Mines says the workgroup, ECN and Televate have been meeting each week and working diligently to put the finishing touches on the draft RFI comments, and the PowerPoint slides are being sent out now. Joe Ross will handle the presentation. He has been leading the group thru the various items in the FirstNet draft RFP, as well as Minnesota's proposed FirstNet phased buildout approach. There is not enough time to dive into every aspect of the draft RFP, so the workgroup focused on items that they deemed most important. The workgroup helped define and redefine those items over the last few weeks. Mines turns it over to Joe Ross for the presentation.

Ross says the RFP was 500 pages, and they encouraged everyone in the working group to read it all. They tried to strike a balance between providing comments that would add the most value to the FirstNet process and results for the state of Minnesota. Second page has an agenda.

Draft Notice and RFP overview, page 3, there are eleven separate documents that comprised this draft RFP. It is hard to read as an RFP – more like a collection of appendices that would be part of an RFP. Special notice document tells the public and industry how to comment on the draft and RFP. Statements of objectives highlights high objectives of FirstNet, which are largely high-level aspirational goals. There are coverage maps associated with FirstNet's initial proposal, but we know FirstNet is expecting our strategic buildout at the end of September. We've heard that if those are reasonable coverage objectives, they will use those and not FirstNet's initial baseline. The minimum technical requirements are from the FCC – FirstNet has no latitude with those. The FCC has mandated that FirstNet and eventual partners meet those requirements. The Quality Assurance surveillance plan talks at a very high level about how the system and service is going to maintain high quality, but it falls short in many ways.

There are use cases – some 30-odd use cases that are defined, of which only five or six are really detailed. In the operational architecture, FirstNet defines 600 roles and responsibilities of all different players – FirstNet, private partners, and public safety. Reassigns responsibility to only 20 percent of those players, so roughly 120 of the 600 were assigned, but FirstNet has asked for feedback on all 600. We've spoken with workgroup about that body of work and with limited time, it was going to be too much to go through all 600 and propose a response for all 600. We're going to see if anything rises to a high level on Thursdays' call.

FirstNet left a pricing concept document that talks about how FirstNet expects to get sustainability from a financial perspective. There's an interim operating capability/final operating capability document that establishes what achievements they expect the vendor to have at various milestones in a five-year contract period. They left placeholders for RAN integration, presumably for states that would opt-out, for the vendor to be responsible for integrating those other RANS into the nationwide network and also the cyber hardness requirements are left out.

The special notice seeks input from public safety and industry on all these documents.

Workgroup Make-up and Schedule: There were over 30 participants in the workgroup, and all regions were represented. There were also state and tribal representatives. The meetings began June 11 and had weekly calls on Thursdays. Those calls were shared with strategic build-out discussions. We provided a draft yesterday. The final meeting is this Thursday.

Comments are due next Monday at noon to FirstNet. We asked for an extension for filing the comments, but FN declined that request.

We have four workgroups that had previously been set up: device workgroup, applications workgroup, systems workgroup, and coverage workgroup. Those started from the NPSTC Statement of Requirements. Through that process, we now have a draft launch requirements document that will be sent to this committee as well.

These are documents and requirements the four working groups have already blessed. Don't believe this committee has not blessed the document as a whole so they are calling it draft launch requirements. Only System and Security requirements documents are left to be drafted.

It's important to include these because there are a number of assumptions and requirements that FirstNet has made that conflict with the state's requirements. It is important for FirstNet to see these requirements in their entirety because it's important for FirstNet to know where the state stands, at least preliminarily, regarding a lot of the requirements of the system and the service.

In addition to that, we have this ongoing, parallel effort of the strategic buildout strategy. We leverage the contents of the strategic buildout in the draft RFP where appropriate.

There were a total of 43 working group members that contributed to these launch requirements, a large number cross functional, local, county, city, state, tribal representation in this entire process. We will be taking the strategic buildout concept to the regions for their feedback, as well.

We will have more time with the strategic buildout to refine exactly what it is we're going to give to FirstNet that, and by virtue of this draft RFP, we are making it clear to FirstNet how we are expecting them to reference our strategic buildout in the formal RFP to be released in December 2015.

Joe continues walking through PowerPoint and the processes used to gain input on the RFP

There is a short break taken from Ross' presentation to see if there is a quorum yet. Mukhtar Thakur, Mike Fink, and Brandon Abley have joined the call, but there is still no quorum.

Slide 8 – Ross continues. In terms of the overall organization, the comments overview sets a collaborative tone so we make clear to FirstNet these are our initial comments to their RFP that we want to have a dialogue about and be involved as FirstNet further develops their RFP.

Slide 9 is evaluation criteria. FirstNet draft RFP identifies 16 objectives in their Statement of Objectives document. Of those 16 objectives, the workgroup mapped them into eight major categories. With one exception, which is security, the major categories were subdivided into minor categories.

The importance and weight of each category and subcategory was established using survey techniques so we had everyone rate each of the categories. We received 11 responses and averaged those and turned those into percentages. On the last call, we made some modifications to shift some weights around to things the workgroup felt were more critical.

One of the main things we wanted to do for each category was determine the minimum acceptable requirements. What is required at a minimum in order for FirstNet to be able to get adoption and then the goals for each category, which was defined as what we should aspire to achieve. What should we incentivize all the vendors to achieve and what should the vendors have to compete against each other to try to achieve.

Slide 10 – The first and largest category is Coverage, which became 20 percent of the overall weight, is divided into 4 categories. Category 1 is Band 14 Coverage. Category 2 is Quality. Category 3 is Growth and Deployables. Category 4 is Net Coverage.

One of the things workgroup discussed was the fact that you don't necessarily have to have all the coverage using Band 14 in order to be successful. More important was more coverage. The workgroup understands that band 14 comes with certain advantages like FirstNet having more control, we definitely get priority preemption, and we have more influence over hardening and things of that nature. The quality of the coverage is all about indoor coverage, outdoor coverage, and throughput levels.

Growth and Deployables is about sustaining additional coverage. One thing the workgroup talked about is the fact that carriers are not going to be stagnant. They will continue to grow their networks, and if FirstNet wants to continue to have public safety adopt, FirstNet will have to continue to have comparable coverage with the carriers in some way, shape, or form. From a net coverage perspective, that's the combination of Band 14 and roaming. If a vendor comes in and can have some novel approaches to satisfying coverage in a global perspective, that was an acceptable solution to the working group.

From a minimum acceptable perspective, the working group wanted FirstNet and the vendors to focus on the critical and extended service areas. Critical areas are those defined to be of high importance to public safety, and the extended service areas are areas where commercial coverage is non-existent or unsatisfactory.

In terms of a goal or objective for amount of Band 14, it was all of the areas – the area the carriers serve, critical areas, and the extended areas. Goal should be to do it faster than a 5 year period.

One of the things you should know about the goal or objective, if we took the critical required and extended service areas at present, there's some coverage sessions that need to occur, we're at almost 96/97% of the state. It's substantially higher than what is thought to be the commercial coverage today.

One of the things you'll hear throughout this discussion is that the carriers create the baseline or benchmark for public safety across the state.

In terms of quality of coverage, the carriers establish that as well – the amount of indoor coverage and the amount of throughput - the working group wanted at the minimum acceptable level as that which the commercial carriers provide.

In terms of the goal or objective, we would define in the strategic buildout the capacity needed in an emergency, and FirstNet would deliver that capacity everywhere we might have that kind of an incident. From an indoor

coverage perspective, we said the in the strategic buildout how much indoor coverage and exactly where we need it, and we presume it will be going farther than what commercial carriers are offering today.

Growth and Deployables: We ask as a minimum that the vendor needs to add coverage to maintain equivalence with the commercial carriers and that they would offer COWS and deployables with preplanned events that were equivalent to the carriers.

From a growth perspective, we ask FirstNet to allow and come up with a plan or program that allows for state, local, or tribal funding of additional buildout so if a county, city, or town felt it wanted to help finance additional cell sites to cover part of its area, they could. We would like to see a specific metrics for growth each year. From a deployable perspective, we request a four-hour response time for any incident that occurs within a state.

From a net coverage perspective, the minimum acceptable should be better than commercial. Our requested goal is two major roaming partners for redundancy and to get the net aggregate coverage that would fill in a lot of the existing coverage gaps. From an objective perspective, we want 95 percent coverage on a per-county basis.

Slide 11 – Service Availability has a 16% overall weight and is comprised of physical hardening, priority preemption, and service restoration. Physical hardening has 5% of the weight, and minimum acceptance was something above commercial grade, which is 99.9% service availability. On goal objective, we wanted to achieve public safety grade, which is five 9's availability.

Priority/preemption: Carries 6% of the weight. The draft RFP talks about incident commanders and dispatchers being involved in capacity and trying to manage congestion and shutting certain users down and shutting consumers down. We briefly talked about that and established that an easy to manage automatic solution is the minimum acceptable.

Another short break as two more join the call – Paul McIntyre and Tim Lee. One more needed for quorum. Rick Juth says Paul represents Central region and is Chair of the User's group, so he could be counted as an alternate. There is now a quorum.

Priority/Preemption is mandated by law, so at a minimum, FirstNet has to provide public safety priority access. The group said ideally, they would like to have priority on roaming networks as well. FirstNet would add value if they can achieve a roaming agreement with a partner that's going to give some kind of priority on commercial networks.

Service Restoration: Weight of 5 percent. Minimum acceptable is best in class among commercial providers. We are encouraging FirstNet to have metrics wherever possible. A lot of the FirstNet employees and contractors come from commercial carriers and should be able to help define this. The workgroup said we need more specificity from vendors. The document talks about this, but it will be harder to get a contract that has specifics if the RFP is not specific.

Goal or objective is to have additional resources to provide high availability or service levels that are comparable to public safety systems.

Cost: 16 percent of overall weight. It was split between two categories – cost of services, which was 11%, and cost of devices, which was 5%. The minimum acceptable for cost of services is competitive with commercial carriers in both price and plan. There should be broad offerings from FirstNet and its partners regarding bulk plans, unlimited plans, etc. Volunteers were mentioned and Bring Your Own Device (BYOD), so FirstNet will need family plans and individual plans in order to get those individuals to subscribe to the service. Family plans would have individuals that were not public safety but somehow those individuals who are on family plans would need to be considered in order to get them to join the service.

The cost needs to include roaming. Today in the US, there are no roaming costs for public safety and that's the minimum acceptable criteria that they're modified to remain competitive, so we suspect that prices will continue to go down, and the partners will have to continue to modify their rates to make sure we're going to be able to have public safety adopt the service.

A goal of the group was for the partner to absorb international roaming fees, and this may not necessarily translate into something that FirstNet passes on to the vendor, but we're encouraging FirstNet to develop a roaming agreement with our Canadian counterparts, as there is a FirstNet equivalent underway in Canada. This would encourage FirstNet no-cost roaming agreements both ways so especially border counties would be able to migrate back and forth. Traffic going out of the country is not CJIS complaint, so we need to make sure we can turn that on a per-user basis.

Workgroup also encouraging discounts to incentivize adoption. We are asking for in the proposal requirements is that vendors provide specifics with regard to their plan and tell us exactly what discounts will be offered and how they will carry out the discounts.

Cost of devices. Again, competitive and need to be subsidized like the carriers offer. That is minimum acceptable.

Goals and objectives. Device discounts and tiered pricing to stimulate adoption. Bringing on 100 extra devices should be cheaper than buying two or three.

Slide 13. Devices weighted at 13%, split between commercial and specialized devices. Previous workgroups on devices were adamant that Apple IOS and Android operating systems are mandatory. We need a selection of devices, at a minimum.

Goal objective to a device portfolio that's identical to the tier 1 commercial carriers. From a specialized device, there has already a lot of work determining what devices were wanted and what we're not interested in, and that has been referenced in the launch requirements. We want to make sure there's an opportunity for third-party suppliers to come in and provide and source new devices.

Proximity services would enable data communications on a unit-to-unit basis. That's being worked on by the international standards bodies so we asked for two smart phones with proximity services.

Slide 14. Security is weighted at 5%. Working groups that were established on security focused on what they are currently receiving from commercial carriers which they think is sufficient. There is concern if FirstNet establishes lofty security requirements. Locals law enforcement are going to encrypt their traffic anyway, so we didn't put a goal objective for this item and only had minimum acceptable. We initially had a goal objective of all the federal certifications that FN is eager to use, but we eliminated that because essentially the group wasn't convinced we should even ask for that.

Slide 15. Marketing and Customer Care is weighted at 10% of the overall score. Minimal acceptable is providing tech support live response during business hours, and the goal objective is 24x7x365 support and portals to view and track the trouble tickets. Billing was a critical identified need, and they wanted detailed billing equivalent with commercial carriers to show usage for each device. From a training perspective, they wanted to have new device and service training and train-the-trainer programs. Need retail customer support for Bring-your-own-device (BYOD) and volunteer support. The vendor needs to provide at least some level of sales and service to bring those volunteers and BYOD users on and provide order fulfillment for them. Ideally, there would be a physical retail presence for fulfillment so you could look at a store for devices FirstNet had if you're a volunteer of BYOD user.

Slide 16 – Application weighted at 10%. Typical cell phone applications were important. We don't think FirstNet

should be asking vendors at this point to do the application ecosystem, so we de-accentuated the development of an ecosystem and feel FirstNet should focus on the kinds of services the state is getting from the carriers – cell phone voice, text, location, services, etc. For a goal objective, there is much better voice quality now called HD Voice, and we said they should offer that. Another application to be interwoven with the LTE network is group communications. The international standards bodies are working on that. From a minimum acceptable perspective, it should be interworked with ARMER, delivered in 60 months, and the goal or objective would be to provide it earlier.

On the NG911 video and other apps, there were a lot of details worked out in the launch requirements about the things FirstNet should deliver and what they must deliver.

Slide 17 - Quality and Features - System Performance weighted at 6%. The minimum acceptable is performance comparable to commercial carriers, and that's on a nationwide basis, so we think FirstNet's probably going to establish goals and availability from a nationwide perspective, so the goal for a commercial carrier should be statewide measurement.

Last is Innovation – upgrade to 5G technology within 12 months of Tier 1 carriers and have a sustainable program to meet or exceed public safety needs for innovation/unique needs.

The Proposal Requirements are what Minnesota would want to see in the final RFP released and what FirstNet would need to see in the proposal in order to score the proposals. One of the things we recognize is that FirstNet could have very different bidders, so they need way to compare apples and oranges. Having clear proposal requirements and evaluation criteria will help that.

The document requires elements that bidders would need to include in their proposal relative to each of the eight categories and then suggest that FirstNet specifically address how their solution is sustainable, how the time to market is fast, and how it stimulates adoption.

The proposal requirements in combination with the evaluation criteria provides valuable tool to assess the bidders responses.

Other key feedback – there is some concern over the acquisition approach. There's a nationwide category and a regional category, with a region being a number of states grouped together. We don't have a solution but expressed concern for how FirstNet would piece together all the different bids from different vendors and select a vendor using standard government procurement mechanisms. We also expressed concern about how FirstNet would be able to enable regional participation (regional meaning sub-state); i.e. what if a Tribe has its own wireless broadband system and wants to be the operator in that area? How would FirstNet make that happen? There's a lack of clear, key measurable performance indicators, and we felt they should be specific to the extent possible.

Sustainability of FirstNet, Service and Growth, was a key point of feedback. FirstNet's draft RFP says that the vendor should propose how much money they're going to give FirstNet on a quarterly basis. FirstNet needs to think about what its costs are and tell the vendor they have to give at least that much in order for FirstNet to be sustainable. There are limited requirements in the document, there's no reference to the NPSTC statement of requirements, and we think they code use the Minnesota's statement of requirements in lieu of or in addition to NPSTC. Another key point is that there is no avenue for asset sharing.

MNIT has endorsed this response to the FirstNet draft RFP.

**Wanchena moves that we approve this and move it forward to the SECB.
Thomson seconds.**

Hegrenes still has concern over the coverage issue. Ninety-five percent on a county-by-county basis should be a minimum requirement rather than a goal.

Chair officially calls the meeting to order at this point.

Someone asks for clarification as to whether it was 95% at initial versus a goal.

Chair defers to Hegrenes for an answer.

Hegrenes says we've been through this in Minnesota, and until we had a minimum requirement of 95% county by county coverage promised on ARMER we weren't assured of having a full build-out or participation among agencies. With ARMER, equating that with a buildout of FirstNet, we thought that a minimum requirement of 95% coverage on a county-by-county basis would assure enough participation of agencies to make this a success.

Chair asks if that is opposed to the current minimum acceptable in the document, which is better than commercial.

Hegrenes says right, but that's not really quantified, because there's a discrepancy between what is claimed to be commercial at this point and what's actually out there.

Rubin Walker says that ARMER coverage is based on mobile and inquires what we are referring to this coverage as.

Ross says that would need to be determined in the strategic build-out process – indoor/outdoor/mobile/portable. He thinks this is talking about the area and the quality of the coverage, and the quality of coverage would address what type of coverage we have in each different area.

Walker says we aren't comparing apples to apples when we're talking ARMER versus LTE, and this will be a misnomer until we cover that part of it. Ninety-five percent mobile coverage might be attainable, but 95 percent coverage without context leaves it open-ended as to what we constitute this as.

Ross says attainability is a financial question. None of this is impossible; it's just a matter of money and a matter of economics. In order to go from 95% of the state to 95% on a county –by-county basis, we need an extra 300 cell sites. One thing the committee needs to remember, you need a lot more LTE sites than ARMER sites, even if it's mobile. You're still talking 200 milliwatts. There is the potential for higher power devices, as high powered mobiles are going through the standardization process for the global standards body —that is going to help a bit but it's not going to compare to a mobile that's ten times stronger for LMR, and the base station is another three to four times stronger comparing it to ARMER. You're still going to need a lot of new sites in order to service that area, which means towers, and towers in more remote areas that are harder to build because of less infrastructure, so getting fiber is not going to be much alternative there. It will be a matter of whether or not we can get microwave connectivity among all those sites. It will be an operationally sizeable expense.

Mines says a goal of 95% county-by- county coverage is a good goal, but it is also an expensive one. We have to balance cost, which is a priority among users, because if cost isn't where commercial carrier costs are, people have said they won't sign up for it. We want top-of-the-line carriers to respond as opposed to people who don't have as much experience in the field. We think the service they would provide is much better. If your goal is the thing you want to attain, and minimum acceptable is already better than commercial coverage, we already know it would be better than what commercial providers would give today. We have to have better than what commercial carriers provide today and the goal and objective should be identified as what we are trying to achieve. If we're trying to achieve better than 95% coverage, then we need to identify that under the goal and objective and balance that against the other primary concern, which is top-of-the-line carrier. We may not be able to achieve low cost if we're

if we ask for this type of coverage. Chances are if carriers don't have tower sites in those areas today, it will be at least a two-year buildout, so we expect 95% coverage on day one.

Nate Timm says he thinks as a cost saving measure with this technology, we could have access points in the squads and fire trucks. That's affordable and an option we can't do with ARMER.

Hegrenes adds with that metric, the perspective bidder would only have to provide one more site than what is currently out there to meet the metric of better than commercial. There are no specific metrics on specifying minimum requirement percentage wise, the winning bidder could have no LTE sites in the state. We may not have any input as to who the successful vendor is – it would be FirstNet negotiating with a perspective vendor and we can't veto it.

Joe Ross says what we said was that we would leverage the strategic build out, the combination of critical desired and extended service areas, which is about 97% of the state. It wouldn't be expected on day one and it would be from a net perspective, so if a vendor were to offer some areas with roaming and some areas with Band 14, the net aggregate there has to be per the strategic build out areas, where we have already defined on a per county basis - - critical areas that are currently not served by the carriers. The amount of Band 14 coverage includes all extended service areas, and basically it says from minimum perspective, they have to serve all the extended and the critical areas and roam on the commercial everywhere else.

Risvold says when you combine some of the minimum acceptable categories that generally meets that goal.

Ross says Hegrenes is right. Better than commercial is vague, but we tie it to the strategic buildout with the intent that we get the net aggregate equivalent to the goal objective (on slide 10,) so the goal/objective is for all of it to be Band 14, so essentially it's kind of the same thing on net coverage perspective – the minimum acceptable is critical required extended but using commercial roaming in parts of the state.

Dave Deal asks if it would it help if we added to the better than commercial a qualifier that says, “as defined in the strategic buildout.” That would give a reference point rather than just a blanket statement, “better than commercial.”

Wanchena says he would accept that as a friendly amendment to his motion.

Thompson accepts the amendment, as well.

Chair says the language will be added to the net coverage category of “better than commercial, as defined in the strategic buildout.”

No further discussion.

Chair calls for vote on the Minnesota response to the Draft FirstNet RFP as amended.

Motion carries with one descent from Bruce Hegrenes.

Discussion items: none

Other business: none

Announcements: none

Meeting adjourns at 11:16 a.m.

STATEWIDE EMERGENCY COMMUNICATIONS BOARD
INTEROPERABLE DATA COMMITTEE

Chair: Mike Risvold
September 22, 2015

ATTENDANCE

Jackie Mines	Dept. of Public Safety	vacant
Jim Johnson	MN IT Services	Ullas Kamath
Jim Mohn/Tim Lee	Dept. of Transportation	
Victor Wanchena	Dept. of Corrections	Cari Gerlicher
Thomas Humphrey	Metropolitan Council	Vince Pellegrin
Brian Askin	Dept. of Natural Resources	
Steve Bluml	Minnesota State Patrol	Tim Boyer
John Hyde	Minnesota Sheriffs' Association	
Michael Risvold, CHAIR	Minnesota Police Chiefs' Association	
Vacant	Minnesota Fire Chiefs' Association	
Mary Borst	Minnesota Ambulance Association	
Vacant	League of Minnesota Cities	
Tina Lindquist	HESM Region 4	
Dave Deal	Association of Minnesota Counties	Nate Timm
Vacant	Minnesota Indian Affairs Council	Vacant
Jake Thompson	Metropolitan Emergency Services Board	Rod Olson
Kristen Lahr	Central Emergency Services Board	Dean Wrobbel
Brian Zastoupil	Northwest Emergency Communications Board	Beryl Wernberg
Bruce Hegrenes	Northeast Emergency Communications Board	Monte Fronk
Brad Milbrath	South Central Emergency Communications Board	Andy Buckmeier
Rick Freshwater	Southeast Emergency Communications Board	Dave Pike
Stacy Tufto	Southwest Emergency Communications Board	Vacant

ALSO ATTENDING

Carol-Linnea Salmon, ECN
Cathy Anderson, ECN
Marcus Bruning, ECN
Joe Reichstadt, Metropolitan Council
Dan Swiderski, CenturyLink
Nate Timm, Washington County
Mark Navolio, Televate
Elizabeth Herring, Televate
Joe Ross, Televate
Brandon Abley, Televate

CALL TO ORDER

Chair Risvold calls the meeting to order at 10:04 a.m.

APPROVAL OF AGENDA

Thomas Humphrey moves to approve the agenda.
Victor Wanchena seconds.
Motion carries.

APPROVAL OF PREVIOUS MINUTES

Humphrey moves to approve the July meeting minutes (there was no meeting in August).
Wanchena seconds.

Chair Risvold notes that it is not necessary for the meeting minutes to provide as much detail as the August minutes did and that summary is sufficient. His intention is that it be less work for the minute taker.

Director Mines responds that the ECN team is working on finding the correct balance of summary and detail and going forward the minutes will have more summary.

Motion carries.

ACTION ITEMS

- **MN Response FirstNet Data Collection (Mines)**

Director Mines reports that the various workgroups have been collecting data as requested by FirstNet for phase I and phase II. The majority of this data collection is due on September 30th. A report summarizing the data was submitted in the materials for this meeting for approval. We will also review a little detail about the regional buildout strategy. Finally, there were some minor changes to the Minnesota Launch Requirements report for approval, as submitted in the meeting materials. Mark Navolio from Televate will review this information for the committee's consideration today to recommend to the SECB for approval to submit to FirstNet.

Navolio gives a presentation summarizing the items committed to FirstNet for phase 1 and phase 2 data collection, as submitted in the meeting materials.

Brandon Abley from Televate presents changes to the Minnesota Launch Requirements document, as submitted in the meeting materials. He notes that the key changes being presented today are on pages 28 - 38. The remainder of the document has been reviewed by the committee previously. At this point the document is considered complete. The key findings are included as headings in the table of contents.

Navolio gives a brief description of all of the deliverables being presented. He calls attention to the published sheet "2a" which lists every public safety entity in Minnesota.

Chair Risvold asks if there are questions.
There are none.

Chair Risvold comments on the 100s or even 1000s of hours of work which volunteers and ECN have committed to this project and thanks everyone.

Humphrey moves to recommend to the SECB for approval and submission to FirstNet the State of Minnesota Response to FirstNet Data Elements Request and the State of Minnesota Launch Requirements for Minnesota Public Safety Broadband Network as submitted in the meeting materials.

Bruce Hegrenes seconds.

No discussion.

Motion carries.

Humphrey moves to adjourn.

Wanchena seconds.

Meeting adjourns at 10:51 a.m.

STATEWIDE EMERGENCY COMMUNICATIONS BOARD
INTEROPERABLE DATA COMMITTEE

Chair: Mike Risvold
October 20, 2015

ATTENDANCE

Jackie Mines	Dept. of Public Safety	James Stromberg
Jim Johnson	MN IT Services	Ullas Kamath
Jim Mohn/Tim Lee	Dept. of Transportation	
Victor Wanchena	Dept. of Corrections	Cari Gerlicher
Thomas Humphrey	Metropolitan Council	Vince Pellegrin
Brian Askin	Dept. of Natural Resources	vacant
Steve Bluml	Minnesota State Patrol	Tim Boyer
John Hyde	Minnesota Sheriffs' Association	vacant
Michael Risvold, CHAIR	Minnesota Police Chiefs' Association	vacant
Wayne Kewitsch	Minnesota Fire Chiefs' Association	vacant
Mary Borst	Minnesota Ambulance Association	vacant
Vacant	League of Minnesota Cities	vacant
Tina Lindquist	HESM Region 4	vacant
Dave Deal	Association of Minnesota Counties	Nate Timm
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Brad Milbrath	South Central Emergency Communications Board	Andy Buckmeier
Rick Freshwater	Southeast Emergency Communications Board	Dave Pike
Stacy Tufto	Southwest Emergency Communications Board	Vacant

ALSO ATTENDING

Carol-Linnea Salmon, ECN
Cathy Anderson, ECN
James Stromberg, ECN
Rick Juth, ECN
Randy Donahue, ECN
Tim Pierce, FirstNet
Steve Ouradnik, Dept. of Corrections
Brent Christensen, MN Telecom Alliance

CALL TO ORDER

Chair Risvold calls the meeting to order at 10:07 a.m. with no quorum.

DISCUSSION ITEMS

- FirstNet Operational Architecture Response (Mines)

Jackie Mines introduces the FirstNet Operational Architecture Response as presented in the meeting materials. Mines thanks all who have participated in the conference calls. The spreadsheet lists things FirstNet is talking about providing such as user management, user security administration, user fraud management, customer service, process development, customer service for tier two support. The team reviewed the items and responded whether we think this is the responsibility of the local entity or FirstNet or both owner and has provided comments.

She adds that there is a lot of good user experience informing this feedback. Some of the information that FirstNet has not provided is essential but they will probably won't be able to answer some of that until they have hired a company. We hope our feedback now can help them score the RFP responses they receive.

Mines says that last month we presented the Phase II elements to the board and this document was not yet ready. We provided a summary of the information. We haven't brought forth each and every document involved in the data collection to the board but she thought that this was a good one because it gives a sense of what we are asking FirstNet to do at a user level.

Discussion about whether it should be submitted to the board for approval or information only. Agreement that it could be an action item if the meeting reaches a quorum and if not then it could be submitted as informational.

- FirstNet Public Notice on Cyber Security (Mines)

Mines says this will probably be the final response. The workgroup met last week and had a good discussion. Dave Deal was very informative. They discussed what kinds of things will need to be decided at the local level versus the national level and what kinds of things will we have to consider with using applications. She draws attention to 2.2.4 which talks about public safety requiring flexibility for buying apps but also having some sort of certification process in place that could protect the network from any app being used.

Victor Wanchena says he thought the beginning could have been worded a bit stronger regarding some of our needs. Specifically the line that says the state understands the fine balance between being too restrictive with requirements versus being perhaps too prescriptive. He feels we need to be very clear and plain about it and that being too soft spoken won't help in the long term.

Mines responds that she appreciates Wanchena being forthright and asks him to send his comments to her.

Mines adds that there is not the flexibility to get the approval from the board before submitting this to FirstNet and asks the committee if it is comfortable with this being submitting to FirstNet with a final version to be brought back next month for the formal process.

This has been reviewed and vetted by the workgroup and there is agreement to go ahead and submit it. Mines says if anyone has any changes or comments to please send them to her as soon as possible.

- SLIGP Metrics (Mines)

Mines introduces a report of State and Local Implementation Grant Program (SLIGP) metrics that was presented in the meeting materials. She says she thought it would be interesting to take a look at our progress in terms of outreach materials distributed, stakeholders engaged, governance meetings held. Minnesota is at the top in all areas except staff, if you exclude contractors, although we do a lot of work with contractors on this project. There are also metrics about the SLIGP grant draw down. It is hard to get approval to use the SLIGP grant funds. She suspects our spend down will increase quite a bit this last quarter because most of the billing for most of the projects Televate was hired to do are coming due this month. She knows that regions want to spend down their SLIGP grant money but the regulations are very strict about what is allowed. We are very cautious about what we approve for the regions. She suspects there will be some auditing with this grant.

Mines reports back from a FirstNet meeting she attended. FirstNet is going to focus on education and outreach going up. They are already going out with a letter to the governor in all states. FirstNet board members are going out to make presentations. For example, Sheriff Stanek is making presentations to sheriffs' conferences around the country. The mayors are sending letters to their associations. There is a big push to convince every state official that they should opt-in to FirstNet.

At the meeting there was a very positive perspective on FirstNet; more so than in the past. It was also very apparent that FirstNet wants a decision from the governors in early 2017. She says we are keeping the governor's staff educated and engaged.

She said we may also see some requests from FirstNet to have workgroup members help them with different items such as what is in the operational architecture. For example they might create a workgroup nationwide for things like Cyber Security and then they may like to have members of our work group participate on that. Hopefully we will be able to provide our workgroup and committee members with an opportunity to weigh in on a national level.

Mines invites Tim Piece from FirstNet, who is on the call, to comment.

Tim Pierce says we started the process two weeks ago. They have many ideas about methods they might use to gather input on various topics such as cyber security needs, resiliency, hardening, features, and

desires--things not directly contingent upon the output of the acquisitions. Once the acquisition is complete then we can have the conversations on those other items.

Mines asks Tim Pierce to continue to keep us updated if FirstNet is reaching out to local legislators. This governor will be relying on this board for a recommendation. We want to request that FirstNet be really in sync with letting us know who they are talking within the state.

Mines says at the upcoming board meeting there will be a report on the LTE pilot and afterwards vendors who participated in the pilot will have booths and will demonstrate devices that were tested. The point will be to focus on the learnings and what was the value of the exercise.

Chief Cunningham will focus on the table top exercise and the aha moments that were going on around the room on using data and the lack of interoperability a lot of these applications have today and some of the concerns we have to be thinking of at the very local level. How we are going to manage that data, what will we do about interoperability and how will we adjust long term planning for the types of to the experience and knowledge people will have when it comes to supporting these types of interfaces. She thinks it will be a very educational opportunity and she encourages everyone to participate who can.

The meeting adjourns at 10:36 a.m.

STATEWIDE EMERGENCY COMMUNICATIONS BOARD INTEROPERABLE DATA COMMITTEE

Chair: Mike Risvold
November 17, 2015

ATTENDANCE

Jackie Mines	Dept. of Public Safety	James Stromberg
Jim Johnson	MN IT Services	Ullas Kamath
Jim Mohn/Tim Lee	Dept. of Transportation	
Victor Wanchena	Dept. of Corrections	Cari Gerlicher
Thomas Humphrey	Metropolitan Council	Vince Pellegrin
Brian Askin	Dept. of Natural Resources	vacant
Steve Bluml	Minnesota State Patrol	Tim Boyer
John Hyde	Minnesota Sheriffs' Association	vacant
Michael Risvold, CHAIR	Minnesota Police Chiefs' Association	vacant
Wayne Kewitsch	Minnesota Fire Chiefs' Association	vacant
Mary Borst	Minnesota Ambulance Association	vacant
Vacant	League of Minnesota Cities	vacant
Tina Lindquist	HESM Region 4	vacant
Dave Deal	Association of Minnesota Counties	Nate Timm
Vacant	Minnesota Indian Affairs Council	vacant
Jake Thompson	Metropolitan Emergency Services Board	Rod Olson
Kristen Lahr	Central Emergency Services Board	Dean Wrobbel
Brian Zastoupil	Northwest Emergency Communications Board	Beryl Wernberg
Bruce Hegrenes	Northeast Emergency Communications Board	Monte Fronk
Brad Milbrath	South Central Emergency Communications Board	Andy Buckmeier
Rick Freshwater	Southeast Emergency Communications Board	Dave Pike
Stacy Tufto	Southwest Emergency Communications Board	Vacant

ALSO ATTENDING

Carol-Linnea Salmon, ECN
Cathy Anderson, ECN
Rick Juth, ECN
Tim Pierce, FirstNet
Joe Reichstadt, Metro Transit
Dona Greiner, Stevens County
Judy Diehl, Stevens County

Elizabeth Herring, Televate
Mark Navolio, Televate

CALL TO ORDER

Chair Risvold calls the meeting to order at 10:07 a.m. with a quorum.

Thomas Humphrey moves to approve the agenda.

Victor Wanchena seconds.

Motion carries.

Humphrey moves to approve the September meeting minutes.

Wanchena seconds.

Motions carries.

Humphrey moves to approve the October meeting minutes.

Wanchena seconds.

Jackie Mines notes some spelling errors that need to be corrected.

Motion carries.

ACTION ITEMS

- FirstNet Operational Architecture Response
- FirstNet Public Notice, CyberSecurity

Chair Risvold introduces the two documents, as presented in the meeting materials. He reports that they were not approved at the last committee meeting due to a lack of quorum. The Statewide Emergency Communications Board approved them at its October meeting, pending approval by this committee.

Wanchena moves to approve the FirstNet Operational Architecture Response and the FirstNet Public Notice, CyberSecurity.

Kristen Lahr seconds.

Motion carries.

DISCUSSION ITEMS

- MnFCP Task 17: CAD Analysis for FirstNet Capacity Planning

Jackie Mines reports that Televate has been asked to report on Task 17, Computer Aided Dispatch (CAD) Analysis for FirstNet capacity planning.

Televate will analyze CAD data to determine how often services have been needed in a particular area, the number of responders needed, the time and duration of incidents and other details to determine how much capacity is needed. The task will endeavor to geo-locate the areas of high capacity events to

help determine where towers should go. She introduces Mark Navolio from Televate to report on the project.

Mark Navolio presents a power point presentation, as submitted in the meeting materials. He reports that the project team will look at three years of CAD data, will collect new data where possible, and will aggregate the data. They will create a matrix to give a more accurate description of where events occur.

The purpose is to respond to FirstNet's request for data that "show the variance in usage ranging from day-to-day type responses up to multi-discipline, large scale responses."

Navolio reports that instead of having the users distributed equally over the entire county, we would distribute the user population based on historical CAD data; thus providing a more accurate description of where capacity is needed.

The task description includes:

- develop usage and traffic profiles based on the historical trends derived from CAD data;
- analyze CAD data (2011-2013) collected over the course of Phase 1 and collect 2014 data where possible;
- create proxy data from secondary sources for agencies unable to provide calls for service (CAD data).

The deliverables include trends analysis, usage map and user distribution map.

OTHER BUSINESS

Jackie Mines reports that work continues with MnGeo for a Phase II item to properly document the boundaries of all the PSAPs and emergency services agencies with a December 1st deadline.

On November 12, a regional tribal meeting was held. It was hosted by the Shakopee Mdewakanton Sioux, with invitations to the Upper and Lower Sioux and the Prairie Island tribal communities. The goal is to set up a meetings with the Chippewa tribe and the Red Lake nation next.

The MnFCP newsletter will come out in a couple of days and the final exercise with the LTE pilot project will be held on November 24th.

We did not get a lot of response back on our RFP from large companies like Verizon and ATT. We have asked Televate to reach out to the big providers and also to report to our SECB executive team on what it would realistically look like if we were to opt out. We are also working with MnDot to see what our tower capacity is like in underserved areas.

Risvold thanks those who were on the call today so we could make a quorum.

Meeting adjourns at 10:38 a.m.

STATEWIDE EMERGENCY COMMUNICATIONS BOARD
INTEROPERABLE DATA COMMITTEE

Chair: Mike Risvold
December 15, 2015

ATTENDANCE

Jackie Mines	Dept. of Public Safety	James Stromberg
Jim Johnson	MN IT Services	Ullas Kamath
Jim Mohn/Tim Lee	Dept. of Transportation	
Victor Wanchena	Dept. of Corrections	Steve Ouradnik
Thomas Humphrey	Metropolitan Council	Vince Pellegrin
Brian Askin	Dept. of Natural Resources	vacant
Steve Bluml	Minnesota State Patrol	Tim Boyer
John Hyde	Minnesota Sheriffs' Association	vacant
Michael Risvold, CHAIR	Minnesota Police Chiefs' Association	vacant
Wayne Kewitsch	Minnesota Fire Chiefs' Association	vacant
Mary Borst	Minnesota Ambulance Association	vacant
Vacant	League of Minnesota Cities	vacant
Tina Lindquist	HESM Region 4	vacant
Dave Deal	Association of Minnesota Counties	Nate Timm
Vacant	Minnesota Indian Affairs Council	vacant
Jake Thompson	Metropolitan Emergency Services Board	Rod Olson
Kristen Lahr	Central Emergency Services Board	Dean Wrobbel
Brian Zastoupil	Northwest Emergency Communications Board	Beryl Wernberg
Bruce Hegrenes	Northeast Emergency Communications Board	Monte Fronk
Brad Milbrath	South Central Emergency Communications Board	Andy Buckmeier
Rick Freshwater	Southeast Emergency Communications Board	Dave Pike
Stacy Tufto	Southwest Emergency Communications Board	Vacant

ALSO ATTENDING

Cathy Anderson, ECN
Rick Juth, ECN
Duane Oothoudt, Leech Lake PD
Brandon Abley, Televate
Marcus Bruning, ECN
Joe Reichstadt, Metro Transit
Randy Donahue, ECN

CALL TO ORDER

Chair Risvold calls the meeting to order at 10:07 with a quorum.

Victor Wanchena moves to approve the agenda.

Jake Thompson seconds.

Motion carries.

Wanchena moves to approve the November meeting minutes.

Kristen Lahr seconds.

Motions carries.

ACTION ITEMS

- LTE Pilot Project Summary Report (Brandon Abley)

Brandon Abley presents a summary of the Minnesota Public Safety Broadband Pilot Project through a power point presentation, as provided in the meeting materials. He reports that the purpose of the project was to explore a private-public partnership to deploy a Public Safety Broadband Network in Minnesota. One finding was that a partnership with Minnesota-based entities can be successfully leveraged to provide Public Safety Broadband service and the chief accomplishment was that we built a Band 14 Public Safety Broadband Network.

Stakeholders included DPS/Emergency Communications Network (ECN), Elk River Fire Department, Great River Energy, New Core Wireless, Motorola/Ericsson, Sonim, OnCall, nMotion, and Lociva. The contribution from the commercial partners in equipment and personnel time was easily in the tens of thousands in savings. Motorola and partner Ericsson provided the LTE site equipment and subscriber devices at no cost. Sonim provided the handheld devices. OnCall provided body worn cameras, nMotion provided an unmanned aerial system (drone with camera), and Lociva provided some test equipment – a deployable LTE network in a box that we used as test equipment. Other accomplishments include an extremely successful tabletop exercise and a successful functional exercise on a live dedicated public safety broadband network. The project served to provide more outreach and education on what FirstNet is and what it can offer, maintaining interest and building support for the Public Safety Broadband project. We also hosted had an extremely successful industry day showcase at the SECB meeting.

Abley talks about the process to get authority for FCC licensing, which is a lengthy and was a significant accomplishment. This was complicated because this is a special case. FirstNet has a license to the FirstNet spectrum nationwide in law, and FirstNet can enter into a lease, but in order to have access to spectrum, you need a lease from FirstNet, along with special authority from the FCC. That goes through a special agency at the FCC for special projects that's set up for experimental types of projects which takes even more time.

There were some technical difficulties experienced at the functional exercise. One major goal of the project was to demonstrate the capability of keeping a small piece of the bandwidth for a public utility company during a public safety incident. However, due to a number of factors this was not accomplished. Mines asks Abley to elaborate on Great River Energy inability to perform this test. Abley says guaranteed bitrate is an

LTE feature that allows you to set up certain devices or applications with a guaranteed amount of throughput. Great River Energy wanted to set up some sensors and elements of their SCADA network to always have service no matter what was going on in the network. It would be a very small amount, but they wanted to test it live during a real exercise with lot of traffic on the network. They were not able to include that in the exercise and test the feature. Due to Later in the project when they were getting prepared to set this up there was a feature that was not enabled on the equipment provided by Motorola, and we weren't able to get that activated within the time frame of the project and within the time frame of the legal authority to operate on the network. He adds that it is not that uncommon to get equipment that doesn't have a feature enabled, you need to get a software license, a technician to install it, etc. It just didn't come together in the timeframe available. Mines adds that when doing a test or pilot like this you can have all these different factors. Everyone is volunteering time, energy, and resources. We had this long lead time with the FCC waiting for approval. She says the vendors really couldn't or didn't dedicate their time until there was a deadline. Creating those deadlines for industry day and the tabletop exercise really moved along this volunteer activity. That's something to consider when asking companies to volunteer their time. Until there's a specific deadline, they won't fly people in and effective testing won't happen until right before the deadline is due.

Abley says that's a good point and uses Motorola as an example. They had support from their Government Affairs people, but they couldn't get permission to send us the equipment until we had the license in hand. During the first part of the project, there was a lot of waiting around because everything was contingent upon the license. He adds that the technology solutions demonstrated at the functional exercise required further testing and configuration. A lot of equipment was pre-market and not ready for primetime. We also learned that consistent and effective project management is crucial; for example, each time a new person took over the project, it was disruptive to the project. Originally, Great River Energy was managing it then asked if ECN could project manage it. ECN project manager left state employment, then a new employee was assigned but did not continue through probation and ECN requested that Televate complete the assignment. Abley goes through the timeline of major events, which originated with the project starting in July 2014 and ending with the November 2015 functional exercise. As of December 2, 2015, the network has been turned down and is no longer broadcasting as of today.

Abley showed a simplified diagram of the LTE core network architecture. He went on to describe technical issues experienced with interference on the network.

An issue that impacted our Wi-Fi on exercise day is that one of our command trailers was aluminum, and you are not going to get a signal into an aluminum trailer, or not a very strong one anyway. That is probably the main reason dispatch had poor service in there. Wi-Fi uses unlicensed spectrum, so if you have a whole bunch of hot spots or Wi-Fi signals, you'll run out of channels and they will interfere with each other. That happens commonly in places like high-rise apartments.

Rod Olson says he noticed the benchmarking tool was an html-based tool and asked if he was able to do anything with the VPN – anything encrypted? Abley responds that we didn't do anything over encryption, and we didn't use any diagnostic tools. We were just trying to test under different scenarios how the throughput would be affected, so we would take a number of samples at each location.

Abley discusses fleets that were at the exercise – different pieces of hardware and software. The more interesting part of the fleet was a Push-To-Talk service that was operating over a broadband network provided on a hosted basis by Motorola. We also had body-worn cameras that were provided by FireCam, a

drone provided by nMotion and Toughbook computers provided by St. Cloud. We ran the exercise off of Elk River Fire Department's CAD system with client software and a smartphone to dispatch people and send updates back and forth.

The Industry Day in October 2015 at the SECB meeting included a panel presentation and a mini-conference by vendors and providers, which made the technology showcase beneficial and more effective, and it was very well-received by Board members and guests.

Mines says quite a few Board members remarked at the Industry Day that now FirstNet and what it can provide seems real and they were excited. That is one of the things we wanted out of the pilot was to demonstrate what a public safety dedicated broadband could do and to make it seem more real to people.

Abley reports on the tabletop exercise, which was held on August 26, 2015, with support from the US Department of Homeland Security. This is an activity that was not part of their program – staff had never done an exercise of this type before. We had to work together to create the exercise, and it was a challenge. The premise of the exercise was a train derailment near Elk River, with hazmat situations as a result. Cellular networks were down because of media activity and the general public, but first responders had a dedicated broadband wireless network to work with. The tabletop was well attended. There were 72 participants from 43 different agencies, which included federal government, all disciplines of state and local government and the army. The facilitator was excellent. It was a very successful event, and participants had a really good experience.

Mines says the tabletop yielded the most valuable information for us as to what we need to focus on in the future to prepare for FirstNet. We had a great advocate in the facilitator, who came up with an exercise focused on the fact that whether FirstNet comes into existence or not, they are using this technology today. We have to start looking at the future for what kind of changes we have to make in hiring, what kind of skillsets people need, what we have to communicate better about who's managing this data during and after the event, what role does dispatch play, how to engage emergency managers more in this process. There are a lot of takeaways from the tabletop to consider.

Abley says that the OEC has a report with recommendations. Many of the points came down to expanding outreach efforts related to public safety broadband. An interesting insight is that agencies that do use broadband should mentor other agencies that are just beginning to or don't today. They recommended establishing a working group to develop data sharing standards. They recommended including some specific technical proficiencies to support broadband in future hiring profiles, like modifying your job descriptions now to think ahead a few years about the people you want in those environments. Also to investigate opportunities to work with educational institutions to mentor students who can support public safety broadband in the future, and to provide training to agency IT staff on public safety technology so they can better understand responders in the field.

The functional exercise was held in Elk River on November 24, 2015. It was a live, functional exercise that used pilot network and demonstrated our technologies. It was originally envisioned as a culmination of all other project efforts. There were dozens of agencies in attendance, including law, fire, EMS, the US Army, and FirstNet. We had technical support provided by Washington County, Douglas County, Sherburne County, and St. Cloud. In particular, we had a lot of support by Washington County, with Nate Timm putting in long hours to get things set up. Participants were not allowed to use radios. They could communicate

with push-to-talk but only over broadband. There were some complaints about the audio quality, but that was probably the device and not the technology. We had streaming video via a body-worn camera (it was spotty during the exercise because the client software kept crashing but we could demonstrate how it worked) and streaming video by an aerial drone, which was not very reliable through the exercise. We could appreciate the novelty but couldn't include it as an effective part of the exercise, because the video was just not available. We used CAD terminals, and we sent some emails, as well.

The exercise was divided into four stations: field personnel, field dispatch, field EOC, and field incident command post. We operated out of trailers onsite, and participants completed two exercise rotations communicating only over the broadband network.

Successes of the functional exercise included demonstrating a dedicated broadband network to participants and new devices unfamiliar to many participants including apps that might be used in an emergency event. People were really interested in the cameras.

We had some challenges including significant technical issues, which made the exercise less effective than it could have been. A lot of this was driven by low throughput on exercise day, especially in command posts. There may have been increased interference on that particular day that they did not have on previous days. Again, one command post was in an aluminum vehicle, which they had not noticed until well into the exercise, which is why it was difficult to get Wi-Fi. Video feeds from body-worn camera and drone were sporadic – frequent software freezes/crash.

After the exercise, we issued a feedback survey. The majority said the exercise met or generally exceeded their expectations, but we didn't have the same enthusiasm as we did at the tabletop. Everyone said they learned something – nobody said they learned nothing, so it wasn't a waste of time.

Mines said the exercise was the hardest to pull off, partly because you don't know what you don't know. There was a lot of preparation dependent on volunteer time and personnel and time constraints. It was hard to envision how to make it work, and unfortunately, we did not have enough money to hire the tabletop facilitator to do the exercise. Then we could have had Abley working on technology in the background and troubleshooting and the facilitator in the foreground walking us through. It was a lot on Abley to make both work. Overall, it gave people a good perception of what could be different.

Mines adds that she appreciates all the hard work command staff put forward in providing their materials and also thanked Nate Timm for all his time and hard work over the course of the exercise. She thanked Brian Zastoupil for his hard work on the technology side, as well. It demonstrates over and over again that there is so much cooperation among all the public safety community and the stakeholders trying to make it a success and work together. That is a huge takeaway that we can be proud of in Minnesota.

Abley says to conclude, the project team feels the project was generally a success. It allowed project team members to evaluate and demonstrate public/private partnership opportunities. Outside of labor, the state didn't really need to invest much money. Most of the work and value was contributed by other people at their own cost. It was interesting to work with a small rural cellular carrier and utility company. The project team did deploy a Band 14 public safety broadband network, which is a significant undertaking.

Despite technical challenges, the functional exercise participants rated the exercise fairly well. Over 90% of participants reported they were satisfied or better, and 100% had learned something. Industry day and the table top exercise were big successes. The tabletop was also beneficial for communications in general.

Mines thanks Abley and says she really appreciates his dedication and effort throughout this whole process. She knows he's been moving on to other projects, and he has been very gracious to continue on with this and make it work with his schedule. She says we benefit quite a bit from his knowledge and experience and she relays her gratitude.

Mines adds that for the tabletop exercise, we received an After Action Report. She would like to do a strategic planning session around it and will send it out to everyone. She wants to dedicate one of the next meetings to that report and how we might achieve some of the outcomes.

Chair Risvold entertains a motion to approve the report and move it forward to the Board.

Wanchena moves to approve the LTE Pilot Project Summary Report.

Jake Thomson seconds.

Motion carries.

Meeting adjourns at 11:16 a.m.