NWX-DOC-NTIA-FIRSTNET (US)

Moderator: Karen Miller-Kuwana
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07:51 am CT

Coordinator: Thank you for standing by. Parties will be in a listen only mode for the duration of today's call. Today's call is being recorded, if you have any objections you may disconnect at this time.

I will now turn the meeting over to your speaker FirstNet Authority Board Chair Edward Horowitz. Thank you. You may begin.

Edward Horowitz: Thank you operator and thank you everyone for being here. Good morning and welcome to Indianapolis, Indiana.

We're very excited to be here and for the opportunity to preview the frame work of the FirstNet Authority Roadmap and Public Safety's feedback to it. And in the racing capital of the world where we did have the opportunity yesterday to visit the track and it is really - pretty awesome place.

You are going to hear today about the roadmap that FirstNet is developing in concert with the Public Safety Community. And the thing I will note about it is that it is a living document. It is an evolving document. So we've-we've taken in the input from Public Safety, we are using that as a guide to both direct AT&T on their public safety's needs and influence the industry to innovate and collaborate with other government agencies as necessary.

The Roadmap will be informed by industry trends and driven by the needs of public safety communities that we serve and will be the central aspect

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of advancing FirstNet and delivering a differentiated broadband communications network for the public safety community.

Public safety's input and collaboration is vital. Through their feedback they are shaping their network for the biggest influence and the biggest impact.

Today's Board meeting is important in that it's the next step in the development of this roadmap. It's an opportunity for us to weigh in and discuss the Roadmap framework and to hear more about what public safety has told us over the past several months.

With that introduction let's move forward to the business of today's Board and Combined Committee meeting. So today's agendas include a reports - report out by the Governance Personnel committee, which I will provide, FirstNet User Spotlight, which will be provided by Tyler Clements, I will introduce him shortly. The Public Safety Advisory Committee update by Todd Early. And then we'll have committee read outs from both the Public Safety Advocacy and Technology Committees in addition to the FirstNet - specifically on the FirstNet Authority Roadmap and then a Finance Committee update and then we will have closing remarks.

I also want to take a moment to note some people in the audience here today. David Vice is a former SPOC (Single Point of Contact) for Indiana and was really helpful in getting Indiana to opt-in. We talked this morning, it's number 26 to do so. Thank you very much for that.

Kelly Dignin, who I will talk a little bit about later, was with us yesterday. She's the Executive Director of Indiana's Integration of Public Safety Commission – Integration of Public Safety Commission - and she gave us a presentation yesterday also about all the activities that she's doing.

Sally Fay, who is a Statewide Interoperability Coordinator, is here with us today. And Dewand Neely, who is the Chief Information Officer and Director for the State of Indiana, and we really do appreciate you all being here with us today. Forgot I have to keep my finger on the mic otherwise…

Okay. So to kick off today's meeting let me ask the Board Secretary to call the roll for the entire board and confirm that each committee has a quorum.

Karen Miller-Kuwana: Thank you Chair. Beginning with Edward Horowitz?

Edward Horowitz: Here.

Karen Miller-Kuwana: Rich Stanek?

Richard Stanek: Here.

Karen Miller-Kuwana: Richard Carrizzo? *Richard Carrizzo was present, but inaudible.*

Karen Miller-Kuwana: Welton Chase?

Welton Chase: Here.

Karen Miller-Kuwana: Neil Cox?

Neil Cox: Here.

Karen Miller-Kuwana: Brian Crawford?

Brian Crawford: Present.

Karen Miller-Kuwana: Billy Hewes?

Billy Hewes: Here.

Karen Miller-Kuwana: Ron Hewitt?

Ron Hewitt: Here.

Karen Miller-Kuwana: Tip Osterthaler?

Tip Osterthaler: Here.

Karen Miller-Kuwana: Paul Patrick?

Paul Patrick: Here.

Karen Miller-Kuwana: Christopher Piehota? *Christopher Piehota was not present.*

Karen Miller-Kuwana: Richard Ross?

Richard Ross: I'm on the line.

Karen Miller-Kuwana: Thank you. Welcome Commissioner. Teri Takai?

Teri Takai: Here.

Karen Miller-Kuwana: Dana Wade? *Dana Wade was not present.*

Karen Miller-Kuwana: David Zolet?

David Zolet: Here.

Karen Miller-Kuwana: Thank you Chair. We have a quorum for the Board and all four committees. I would like to take a moment to also note that prior to participating in today's Board meeting the Board members have received the agenda as well as their conflict of interest guidance provided by the Ethics and Law Program Division of the Department of Commerce Office of General Counsel regarding the

conflict of interest standards that apply to the FirstNet Board members.

All of the Board members have responded that they do not have a conflict and will not need to recuse themselves from participation in any portion of this meeting today. Thank you.

Edward Horowitz: Thank you Madam Secretary. Each member of the committee has before him or her the minutes of our March meeting. Are there any additions or corrections to those minutes at this time? (Pause) Seeing none, I will take a motion that we accept these minutes.

Brian Crawford: So moved Mr. Chair

Teri Takai: Second.

Edward Horowitz: Thank you. All in favor say aye.

Group: Aye.

Edward Horowitz: Oppose indicate by saying, "Nay." No nays. Are there any abstentions? No abstentions. The minutes are accepted Madam Secretary please make the minutes available to the public following this meeting.

Karen Miller-Kuwana: Thank you. We will post them on the website.

Edward Horowitz: To begin the Governance and Personnel Committee update, I wanted to provide a quick leadership update on the status of the CEO hiring process. As we discussed in the March Board meeting, the process for the selection of the FirstNet's Chief Executive Officer is actively underway and remains a top priority of the Board, NTIA, and the Department of Commerce.

As of May 29th, Ed Parkinson's official detail assignment as acting CEO of the FirstNet Authority expired. Effective May 30, the duties and functions of the CEO were divided and assigned to Jeff Bratcher and to Ed Parkinson.

So until the process of selecting a permanent CEO is complete, Jeff is responsible for the budget and executive leadership of the FirstNet Authority, while Ed Parkinson continues to oversee the daily operations of FirstNet.

We are also looking for a new Board member. So I want to provide an update on that as well and also thank Teri Takai for her services. And we'll talk more about her in a few minutes.

In August of 2019, one of the 12 appointments of non-permanent Board members to the FirstNet board will expire, and the NTIA has initiated the annual process to seek expressions of interest from individuals who would like to serve on the Board.

At present the NTIA is in the process of interviewing Board candidates and is on track to announce the appointment by the Secretary of Commerce by the expiration of Teri's term, which is on the 22nd of August. That's the plan.

And as much as we look forward to the appointment of a new Board member, we would not be where we today without the commitment and hard work of Board member Teri Takai.

Teri [Takai] is a founding and the longest serving member of the FirstNet Board, serving from 2012 to the present. Pioneer, foundation. As a Board member, Teri's been an influential member

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of the Board's Governance and Personnel Committees and Public Safety Advocacy Committee, and has worked tirelessly to create the FirstNet network for public safety.

To honor her invaluable input and services as a Board member, the Board would like to formally recognize and thank her with the following Board resolution. Board Resolution 99, which is an expression of interest for the services of Teri Takai as a member of the First Responder Network Authority Board.

So before I ask Karen to read through the resolution I would like to open up the floor to anyone who wants to say anything they would like to about Teri knowing that this a - is her last meeting in person. So Neil [Cox]?

Neil Cox: Yeah. Mr. Chairman. Thank you. Teri [Takai], it really has been an honor to serve with you. I know when I – when I joined the Board we were doing some very critical decisions, and most people don't know that there was a lot of controversy on this Board concerning whether we would have one bid or we would have seven different bids to roll out this network.

There were some people that felt that one bid was too big. This was too big of a project for anybody to take and others said, no, we need to have one -one and then we were going to divide it up into several different regions and have different groups bid on it.

However Teri was very, very solid in her thoughts and her processes that we need one network - we need one national network and we will find somebody to bid.

She's been an inspiration on the Board. I really truly enjoy serving with her and I wish you the best in whatever you do. But having been here from the beginning you've seen it all. You've seen it from whether we stood a chance or not of making this happen to the point now where we have one of the most dynamic networks in the world and it works and it works and it's saving lives every day.

So again, thank you for your service.

Edward Horowitz: Thank you Neil.

Edward Parkinson: Mr. Chair. If you don't mind?

Edward Horowitz: Go ahead.

Edward Parkinson: I joined FirstNet back in July of 2013 and Teri and I met just a few weeks afterwards. At the time there was just a handful of staff, the more staff – beg your pardon more Board members than there were staff. And Teri was such an important part of establishing the management of FirstNet, ensuring that the network got up and running in terms of the – the skill sets and frankly the personnel we brought on Board.

The experiences that she brings as a former CIO in California, in Michigan and DOD allowed for public safety to know at the federal, state, and local level that they had a voice inside the management and operations of the system was hugely important.

When we went around to the communities across the country and we said we have Teri Takai people knew who she was and they understood the impact that she had on our ability to develop an RFP, engage with public safety.

And from a personal perspective, she really did act as a –as a sounding board and as a mentor to me especially as we were just starting our way and finding our way as an organization.

So, from the management and from me personally, Teri, I really appreciate everything you've done for the organization and for public safety across the United States. We would not be here without you. It's that simple.

Richard Stanek: Yes. Thank you Mr. Chair. Teri [Takai], it has been an absolute pleasure to serve with you. I had a chance to meet you in the summer of 2014 as I was coming on the Board. You interviewed me -wasn't quite sure what to expect but I knew from talking with you and the other two individuals that day, the other Board members, that this was something I wanted to be a part of moving forward.

You are universally respected across the board and we've been to Board meetings across this country, we have done a lot of things together and everywhere we go you seem to know someone, somewhere in that field. And that depth of knowledge and your passion for public safety comes out.

Even yesterday sitting in the Board briefings you were pressing the issues that were important to this Board looking forward and I appreciate that Teri. You - you know you have been a dynamic force to deal with truly and I don't – I don't say that lightly -- because if you think about all of the things that you have weighed in on, if you think about all the other Board members like myself

that you've been able to mentor and bring on over the years. You know, we can only hope that we can continue that - that standard. Teri, thank you very much and best wishes to you.

Welton Chase: Teri I first met you over at the Department of Defense as a Senior Military Officer and it was your strong leadership there that guided us through a very challenging time. Your service to the nation there and here on FirstNet Board is just great and it's something that as an American citizen – all citizens should take great comfort knowing that you've been here to guide us.

I appreciate your strong leadership. Thank you for all you've done in helping us. And on behalf of all of our Board members and team we wish you all the best with whatever comes next.

Jeff Bratcher: Thank you Mr. Chairman. Teri [Takai], it's been seven years ago August, right? So time flies. Thank you again for your leadership and guidance with the team, challenging the technical team and the outreach team on can we do better and let's get public safety's input on everything we do and we've held to that.

As I said last night you started here in a very - been through the highs and lows. There is a book in you. I expect a book at some point from you for serving on the Board here.

But thank you from the bottom of my heart. Thanks for your guidance and thank you for your service to the Board.

Edward Horowitz: Thank you all. Is there - do we have anyone on the phone who would like to make a statement?

My turn. So I, like Sheriff Stanek, first met you when I was being interviewed for the opportunity to be on this Board. What I found in you was a very direct, sensible approach to examining the person who is sitting in front of you, as well as to explain what the mission of FirstNet was and what we were trying to achieve without any fluff.

And I think that characterizes who you are. There's no fluff about you. You are very direct, obviously extremely knowledgeable on the subjects, well-liked and well-known.

And because you are well-known and well-liked there is no need to pussyfoot around. You are just the person you can talk to quite frankly. And I have also benefited from your counseling as I was easing my way into and onto this Board. So we have this resolution for you.

I would also note that you might be getting off the Board but we are instilling upon you an ambassador rank so that we can feel free to call you. Not pay you but call you any time we need some assistance and some introductions.

So with that if there are no other comments from anyone then I would like to suggest to Karen that you read through the resolution slowly.

Karen Miller-Kuwana: Thank you Chairman. So I will read - this is Resolution 99, and so I will read through the operative language and we will post this on our Web site as well once it's voted on. I'm assuming it's going to pass with flying colors.

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Whereas Teri Takai has served admirably as a founding and the longest standing member of the FirstNet Authority Board since its inception in 2012, and as an influential member of the Board's Governance and Personnel Committee and the Public Safety Advocacy formally known as the Consultation Outreach Committee.

Whereas Teri Takai has notably represented the state and local government communities and her expertise in government information technology and her extensive experience as the Chief Information Officer for the states of Michigan and California have been invaluable to the FirstNet Authority Board.

Whereas Teri Takai has contributed instrumental input and provided invaluable strategic expertise to the Board, as the FirstNet Authority created its formative roadmap to guide management from inception and startups through the release and evaluation of the RFP for the Nationwide Public Safety Broadband Network, to the contract award to AT&T and the successful opt-in decision from all 56 states, territories, and the district of Columbia. To the deployment of NPSBN and the deployment - development and implementation of the FirstNet Authority roadmap.

Now therefore be it resolved that the FirstNet Authority Board hereby extends its formal appreciation to Teri Takai for her extraordinary service and dedication as a member of the FirstNet Authority Board.

Edward Horowitz: Thank you, Karen. May I have a motion to approve Resolution 99 please?

Neil Cox: So moved.

Welton Chase: Second.

Edward Horowitz: Thank you. All in favor say aye.

Group: Aye.

Edward Horowitz: Thank you. I won't even ask. Is there anybody opposed? Nay. None. So no abstention so with that the resolution passes. Teri thank you so much for everything that you've done. [Applause]

Do you want to say something?

Teri Takai: Yes, Ed I would. First of all, it's been an honor to really serve on this Board since the beginning, number one. Secondly, I am so tremendously proud of the Board today but also all of the Board members that I have served with over the past. And I'm just excited because this is something I think all of us feel is a lasting accomplishment for each one of us. It's one of those once in a lifetime opportunities.

So first of all, thank you to this Board for the Resolution and I wish you all the best and you are absolutely right Ed, if there is anything you need in the future just let me know.

Edward Horowitz: Thank you Teri. The next item I would like to talk about is the Chief Harlin McEwen Public Safety Broadband Communications Award. The Chief Harlin McEwen Public Safety Communications Award is the FirstNet Authority's sole prestigious award. Established in 2017 the award – the award recognizes the spirit of

service, commitment and dedication that is a proud tradition among public safety.

The award was created in honor of Chief Harlin McEwen for his extraordinary expertise, experience and leadership as the founding Public Safety Advisory Committee Chair, and past recipients of the award include Chief Harlin McEwen and Tom Sorley.

The award honors an individual who has displayed remarkable leadership or made significant contributions in the field of public safety broadband communications.

Any sworn or civilian member of public safety, fire service, law enforcement, EMS, emergency management and 911 emergency communications is eligible for this award.

The FirstNet Authority is seeking nominations through the 30th of September and if anyone is interested in it and in nominating someone the nomination form can be found on the FirstNet.gov website.

Before closing on the Governance Committee let me welcome Tyler Clements, Field Coordinator for the State of Indiana, as part of our FirstNet user spotlight.

And I also want to thank the individuals for - who hosted the Board yesterday at the Indianapolis Motor Speedway. I think I have always thought that the center of the universe was in Times Square. I think I found another epicenter and that is here in Indianapolis at the Motor Speedway.

We did truly appreciate the opportunity to learn about the IMS and the Indy 500 and to be briefed on all the Indy 500's hazards and the FirstNet network performance at this race.

Bill Soards, President of AT&T Indiana; Michael Bates, Senior Director of Safety and Security of Hulman Motorsports; Kelly Dignin, who I mentioned earlier, who is Senior Director of Safety and Security - I'm sorry, who is Executive Director of Indiana Integrated Public Safety Commission; Fred Ogline, the Director of the Radio Access Network for AT&T FirstNet. I want to thank you all for hosting us yesterday.

With that, I'm pleased to introduce Tyler Clements, Field Coordinator Indiana Integrated Public Safety Commission.

Tyler Clements: Thank you Mr. Chairman. Good morning FirstNet Board. Thank you. It's such a privilege to be here to be able to speak to you today regarding some of our current activities and spotlights as you may have heard from our Executive Director Kelly Dignin yesterday.

So what I would like to do is paint a picture kind of augmenting some of the communication items that Director Dignin shared with you on where we are leading up from until now as public safety communications have and will continue to move forward through the Public Safety National Broadband Network.

So what I would like to talk about today is the inception to reality and kind of some of the progress that we have made. As the Chairman mentioned my name is Tyler Clements, I'm with the State of Indiana Integrated Public Safety Commission.

Along with my duties there I serve as an emergency response coordinator and field coordination to all 92 counties throughout the state. I'm also assigned to Indiana's Incident Management Assistance Team as their Type Three Communications Unit Leader.

So let's get started and move right on in. So in October, 2017, as we mentioned earlier, Governor Eric Holcomb opted into FirstNet.

Ever since we launched FirstNet from the beginning to our progression including current time it's been a very, very fast lane if you will and it's also been the fast lane that we have actually had delivered to us through the network in a quorum. We'll talk about that here in a little bit.

But what I want to do is be able to paint a picture for you speaking not only in physical pictures but I want you to be able to realize what tactical interoperable communication tools are out there serving not only state agencies, federal agencies, but all of our public safety communities and first responders far and wide across the state. And we'll go ahead and talk about that.

So we started with FirstNet our launch, winter of 2018, we began testing. We had a lot of testing that we completed throughout the state. We actually met with first responders at a lot of different state meetings here with us today as Chairman mentioned Executive Director - past Executive Director David Vice.

We were really championing FirstNet and what was going to come of the network. There were a lot of questions out there from first

responders on what could they expect. How would the system perform? And what would it really offer to them?

A lot of those unknowns I'm sure are something that's quite common throughout the nation, but this is something that we were able to share to our first responders that FirstNet was going to be able to provide them the interoperability tools for public safety broadband communications moving forward.

Our first deployment was spring 2018. This was a state agency deployment where we deployed to Thunder over Louisville. Many of you may be familiar with Thunder over Louisville, it's a large - one of the nation's largest firework shows along the Ohio River.

We have a lot of interoperability and communication needs as we're dealing with a lot of different agencies. We are working with over 78 individual agencies and several federal agencies. So communications is one of our biggest items there. But one of the other items that really standout is the need to be able to provide communications over a broadband platform.

So one reason that I'm showing this slide is because I'm going to show a second slide here with a current and past year. This is an annual event that leads into the Kentucky Derby, and as you can see here in the bottom left hand corner you are going to see a very large crowd.

The crowds here on an average year with good weather range anywhere from 250 to 300,000 people just on one side of the river. So we know that the ability for a mass casualty incident, maybe a

domestic terrorism incident. A lot of homeland security items arise.

And one of the issues we have here is so many civilians texting and on their cellular devices live-streaming and communicating, that first responders before FirstNet had no way to communicate. We had no lane that was ours. We had - one of the biggest issues that we dealt with was that the networks were so congested a simple text or a phone call were unable to be performed.

Our next deployment was July 2018. We have progressed a little bit. FirstNet has made its inception into the state. We have begun putting equipment in the hands of first responders.

What you are looking at here on this slide is a cradle point modem, router if you will, that is operating on FirstNet. The location that we were at during this exercise - this was a state level exercise at the Muscatatuck Urban Training Center that is located in Southern Indiana. A very rural area that relatively has no cellular network or service on a good day let alone a stormy week where we were providing the state level exercise communications.

One of the items that we were providing was communication for all first responders as this was an exercise recovery incident. So one of the big items that we had was that responders needed to send a lot of information back to the State Emergency Operations Center.

This is where several satellites failed on us. We had other communication items that we weren't able to put into place. We simply went into this gymnasium as you can see here in the left

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hand picture, plugged in a cradle point and within minutes we had FirstNet connectivity delivering to all responders.

At one point in time the National Weather Service come up and ask me and said, "Would there be any way that we could get onto this network?"

So of course, you know, including public safety this was where we started to see how FirstNet could deliver the tools that we needed. And this was just the beginning and we are just now getting ready to get rolling.

So August 2018 we had one of our largest responses and this is a - historically this is an air show in Terre Haute which is in the Western side of Indiana at the Illinois line. One of the issues that we had is that this air show had not performed in 8 to 10 years.

There were sold out tickets - a lot of VIP tickets to include 10,000 VIP tickets at that. And we received 2 to 3 inches of rain the day before the event. So as you can imagine that closed a lot of parking. We had a lot of issues.

As you look here at the slide in the bottom right hand side this was taken as our response in. This is 5:45 in the morning - actually it's getting to the six o'clock hour. You can see there from the fog rising and the sun just starting to come up. This is vehicles that were shutting down the interstate in the area as well as many state and county roads so we knew that our hands were going to be full that day.

One thing that we did prior to the event was worked with FirstNet to make sure that the network was optimized so that it could be

delivered as they didn't actually - the commercial carrier didn't see the need to deploy a COW or site on wheels.

So that being said almost 20,000 people were turned away, numerous people were making their own parking throughout the event. We had a lot of medical incidents as well as other emergencies that came in. FirstNet was the only carrier that provided us through that congest – excuse me congestion throughout that event.

These are several statewide events as Director Dignin spoke yesterday the Indianapolis 500 recently coming on board with the Indiana State Police working with their strategic operations and special operations teams. We've been able to get out and work with our first responders to incorporate FirstNet in the early stages of planning.

As you can see here not only does this picture or this slide if you will encompass the 500, but it also has other large events to include the mini-marathon and some other events throughout the state that offer large crowds where FirstNet is definitely in use.

So this is 2019 Thunder over Louisville that occurred just this April. One of the items that I wanted to talk about here is that we are moving from 2018 to 2019 so much progress with FirstNet has been made.

One of the biggest highlights is that FirstNet actually was in working with us throughout the 23 different individual planning meetings to make sure that the system was optimized not only to include the cellular sites as you can see there, the Band 14 sites

that are in the area -- but also to start providing us deployable site on wheels.

As you can see this year we did deal with a lot of flooding issues. The picture is pretty self-explanatory. Most of the civilians and the attendees make their way right down to the flooding zone to set up their camp.

We have had no issues whatsoever at this large event. FirstNet has been able to provide us interoperability straight through with no issues. So an amazing system for us here moving forward.

This year the 103rd running of the Indianapolis 500 as you may have learned yesterday our strategic planning leading up to this event provided interoperability on such a large scale with over thousands of first responders that needed to share relative public safety interoperability.

FirstNet definitely delivered to this event and we look forward to moving forward with the City of Indianapolis and other users as we plan to deploy FirstNet throughout events locally and throughout the state.

Preparing for the future, I have listed a slide here that actually showed the service that we were getting during the busiest time of the 500. This slide here shows that the carrier that we were using of course FirstNet, Band 14, a negative 61 signal and the neighboring site negative 71. So that's just outstanding in terms of communications and cellular coverage.

You will also see here some equipment that we have deployed on our hurricane deployments, as well as a new drop kit that we have

implemented here in the State of Indiana to include an emergency cellular drop kit. We now have two of these kits strategically placed here in the state so that we can provide first responders with quick, immediate access to FirstNet tools.

But in so many cases we are seeing first responders already implementing these so we can augment those that may need this during an emergency or a disaster.

So with that being said that is my presentation on where we are in Indiana. We feel that we continue to lead the way as far as public safety communications. We do know that we have a very robust Land Mobile Radio System. But what we have now is a new tool in our pocket and it's a new tool that we deploy to every incident today, tomorrow, and in the future. So thank you very much. Any questions?

Edward Horowitz: Well, first of all Tyler I wanted to make up for something I did not do prior to you starting out today, but you can hear it in your voice the enthusiasm that you bring to this position and the job and the mission.

And it comes from a family of first responders; your father and both grandfathers were - served as volunteer fire fighters and they passed - obviously passed along the passion for public service as they allowed you to tag along with them on the truck. I imagine that nobody told the insurance company about it.

But nonetheless, you know, what you have described is really the validation of FirstNet being the only certified public safety

network on a cellular basis. So it's a - certified cellular network, there is only one of them, and it's the FirstNet network.

And with that that last image that you had on those charts, you had signal strength on the left had side that shows a pretty hot signal. And yesterday when we were on the speedway we similarly observed because Jeff Bratcher brings his Band 14 phone wherever he goes and measures down links and up links. It's a similar hot environment there.

And what you have here is really the essence of what FirstNet is about, both in a large domain like the speedway and also in planned events as you just described. But also that you can depend upon it with the deployment of Band 14 equipment throughout the state in order to serve the needs that come up in an emergency situation.

So thank you for what you do. Don't stop. We need more of it. Bring more people into the network. We want more people like you out there in the fields working with public safety.

So with that let me turn over the table to anyone who has questions.

Welton Chase: Thank you Mr. Chair. Tyler, thank you very much for your service to your local population here and to the country and the nation. As you watched FirstNet evolve over a couple of years you have been using it, what do you think that we can do next to improve the service for you here?

Tyler Clements: You know, I think the biggest thing is that we need to still work collaboratively with the network, with AT&T moving forward. I

think that it's very important that we hold their feet to the fire speaking of that in a very passionate way because the system build out is well and above, you know, with the progression that it's made it's well ahead of everything else. But I think that we are going to see this expand to the rural communities.

And speaking to go on to what Mr. Chair was speaking of I think that it's important to know that this is an all hazards tool that we now have that we didn't have before. You know, the evolution of emergency responses evolving so much that we are actually beyond land mobile radios now.

As soon as we arrive in scene first responders are coming to us looking for that IT section. They are looking for a way to deliver that and this is a tool that we have immediately. So thank you.

Welton Chase: Thank you.

Edward Horowitz: Thank you.

Neil Cox: Tyler, again thank you for your service. We really appreciate everything you have done. If you look out 10 years what would you like this network to do? What would you like it to be -- because we've got a network here that it's still in its infancy, we are building out the Band 14, but what type of device or servers or application you see would be the killer app 10 years from now that would make first responders like it better?

Tyler Clements: Great. Thank you. Great question. I think that the most important thing here to keep in mind and you mentioned it by application, you know, we are moving into an app ecosystem here and we already have that with FirstNet. But being able to further these

applications so that we can streamline the multiple complexities that are out there and that exist today.

We know that there is a lot of different people coming to the table during a disaster, during an emergency response and has a lot of different ways to communicate and we need to come up with one way that can quickly through plug-and-play technology or through downloading an application that can share this across the board and even assist those that may not be on the network or the core itself.

So I think that's huge in terms of moving forward and looking into the future.

Neil Cox: So in the case of a secure application based on the situation at that need, getting in to the right databases where someone knowing that that's the instant you are going to that app pops up, push that app and all the information is available for all the first responders and so they all know that would be something that would be - save a lot of lives and help the first responders, correct?

Tyler Clements: Yep, you're exactly right. And that's exactly what's needed is development towards that they can have integration with just a push of a button or the push of an application click that information can be streamed back to the emergency operation center, the public safety answering point because time is critical.

And we know that when you have an overturned vehicle three o'clock in the morning or maybe pushing some type of an EKG result back to a hospital ER, that information needs to be shared and it needs to go immediately. It delivers today but to be able to

do that across different platforms is definitely looking into the future.

Neil Cox: So as the Chairman talked about we are the only network for public safety and we have cyber security standards that far exceed anybody else's. So we're able I think to develop those types of innovations because they would be secure only on this network and only for public safety.

Tyler Clements: Absolutely. Thank you.

Edward Horowitz: So I would like to encourage you to play a role in helping us develop a roadmap. Dave Buchanan is a couple of people over to your right - connect with him. Make sure you each have each other's contact information and we'll make sure to invite you to some of these forums that we are putting together that seek input from public safety. Thank you.

Dave is that okay with you?

Dave Buchanan: Absolutely.

Edward Horowitz: Okay. Well, you couldn't say no I guess. So anything else to Tyler - yes.

Richard Carrizzo: Tyler, thank you for all your support of FirstNet first of all. I very much appreciate it. When we go back to Neil's question on the apps how do we or you the state and others throughout the United States get more people involved in helping to develop the app with the users? Any ideas?

Tyler Clements: I think that the first thing the users that aren't using it today have to experience it in the field. You know, they have to actually physically be there when everything else is congested see what FirstNet actually offers and then you can go from there. I think that's the largest thing - we have noticed that that's been the largest item that's helped us advance here in the State of Indiana.

Edward Parkinson: If I can to - to your question is spot on true Tyler. One of the things that FirstNet AT&T is going to be working on in September here at the Indianapolis Speedway - I think it's on September 13, 14 there is a Hackathon and so I would really encourage folks who are listening in. We'll obviously be telling a little bit more about that in the coming months.

But we're excited to come back for that. We are excited to come back to Indiana in September and we very much look forward to that Hackathon. I think as I said it's in September 13, 14 so more information to come in then.

Tyler Clements: I look forward to it. Thank you.

Edward Horowitz: Thanks Ed. Anyone else? Terrific. You know, my colleague here says hold up the sign so everybody could see when the Hackathon is September 13 to 14 at the Speedway and there is more information…

Edward Parkinson: You have to be at the center of the universe, right?

Edward Horowitz: Yes. The second center of the universe. Its FirstNet.com/developer is the site, but I'm sure we will have promotions for it beforehand.

So thank you again very much for your service, for your devotion, for your enthusiasm, your youth is what is required to make sure that we are communicating effectively to the people that are coming into the industry. I think there is no better test than somebody actually using it. Once you have used it the ideas will fly and so don't be shy. Okay.

Speaking of not being shy let me turn the session over to Todd Early who is going to talk about - provide us an update on the Public Safety Advisory Committee and the work that they are doing.

Todd Early: Mr. Chair and the members, good morning and thank you for the opportunity to be here to brief you on the great work that the Public Safety Advisory Committee is doing. We have a great group of dedicated folks on there and – and it's very much a privilege to be able to serve in that capacity.

But I want to take a minute to thank the Board members and the FirstNet executive staff for the partnership that - that you each have with the Public Safety Advisory Committee. It's evident that you value the input of the subject matter experts on this committee.

It's evident in the amount of meetings that each of you take your personal time to attend and be there. And not only be there but provide input, and we greatly appreciate that partnership. So from each of us thank you.

And I also want to thank you for the chance to chair this group and work alongside each of these dedicated public safety first

responders and associations. I don't take that lightly and it's an honor to get to do that and I just want to say thank you for that.

With that being said I want to brief you on the work of the Tribal Working Group. We had our first in-person meeting in Nashville, Tennessee, on April 29th and 30th.

The delegates were joined by the FirstNet Authority PSA team David Buchanan and his team. We were honored to have Paul Patrick there as the Tribal Board liaison as well and myself.

We had a chance to discuss quite a few things but -but the use of FirstNet network in the tribal communities. We had the chance to discuss at length the roadmap that I know I'm going to talk about here in a minute and Dave is going to get further into it as well and the Tribal Working Group and what they are working on.

We were honored to have Tim Zientek the Emergency Manager for the Citizen Potawatomi Nation. He provided the tribe's experience utilizing the Sat Colt during their FireLake Fireflight Balloon Festival in August of 2018. And he gave a lot of input into that and their use of that.

And overall the crowd was very happy in the use of that. There was a lot of discussion back and forth on it and they communicated lessons learned and best practices and in their after action report to the FirstNet Authority. This was the first use case in instance of a FirstNet deployable utilized in Indian country that we are aware of so great input in that as well.

Tribal delegates also had the opportunity to provide the FirstNet Authority feedback on the FirstNet Roadmap presented by Dave Buchanan and the team.

And I want to say thank you to Dave and his team. You know, it's very evident that the input of this Board, the input of the executive leadership of the FirstNet Authority, wanted public safety input into that roadmap. And Dave and his team worked tirelessly in obtaining that from the working groups, from the public safety community across the nation. The amount of time that they spent on the road is enormous, and so I want to say thanks to Dave and his team for providing that chance.

But we really had the chance to throw that out there and provide input. It went really well very well that the Tribal Working Group members received it and provided a lot of great information to that roadmap during that session and we received a lot of great information on that as well.

The Tribal Working Group also continued to support the FirstNet Authority Tribal Consultation Policy. And continued to advise the PSAC, the Authority, and AT&T on travel engagement and outreach tools.

These engagements are critical as they codify an educational feedback mechanism for use in the tribal nations.

So a lot of great work going on in the Tribal Working Group.

I want to thank Danae Wilson for her leadership and the chair of that Tribal Working Group. She does a great job in leading that group and very appreciative of that.

Jumping into the PSAC webinar series and strike teams as you know we took a little different direction in the PSAC over the past year and we began having monthly webinars where we receive a lot of great information.

And then we also decided to start the formation of what we are calling strike teams that we have discussed in the past Board meetings.

And we began in January in the webinar series of discussing mission critical video. A great opportunity to really take a deep dive and get great information and feedback from the public safety community on mission critical video and the future use of video over FirstNet.

In February we really jumped into start providing input into the roadmap and working with Jeremy and Dave and the teams on providing that input from the PSAC on the roadmap.

We began with a prioritization survey and then discussed the results and the analysis of the priorities in the different disciplines of public safety and technology areas into the roadmap that you all are very familiar with. And again just appreciative of the opportunity to provide that into the roadmap.

I think it's really critical to get that feedback from the public safety community to know what they deal with, the gaps that they deal with and how this network and technology is really going to feed into the innovation of really providing what these public safety entities and first responders deserve and need.

And in March we - the roadmap team walked the PSAC through the results of the nationwide survey that had been attained and really set the foundation of the roadmap.

In May we got the opportunity to really have one of our first strike teams, and that was really centered around the FirstNet Experience Center in Boulder. We met at the facility in Boulder. And I want to thank Jeff Bratcher and his team they're doing a great job out there in what they are doing to set that up. And really had a great day of knowing and understanding what they are looking at doing but then having a chance for the members to provide the feedback into the FirstNet Experience Center and what's critical to public safety.

I appreciate that opportunity and not only the plans for the lab there but also the experience program on the road. I think it's critically important to not only have that there but have the ability for Dave and his team to for when they go out to public safety to show that capability so that they understand and know what they are actually utilizing and I-I think it was a great thing.

One of the things that they asked was for us not to dissolve that strike team but to continue it to provide continuous feedback into the build out of that Experience Center so we are appreciative of that as well.

I'll go into more detail on our in-person meeting that we held earlier this month but - but we would - the executive team and I had a few topics that you see here on-on future webinar series and things that we are looking at – at establishing and having webinars and - and briefings on.

But one of the strike teams that we had a discussion on where you are standing up is telehealth use and policies. We're going to establish a telehealth strike team. We think that that feedback is critical.

Our Executive Committee member John Olson is going to chair the team and Chief Mike Duyck is going to be the vice chair of that. We also will have the input of-of Paul Patrick and other Board members that you have, Kevin McGuiness, that you are aware of really excited about this. We think that this is really going to provide a chance to really explore and provide critical input into how this is going to really just explode the use in telehealth and allow those critical components to be utilized over the FirstNet network.

Edward Parkinson: Todd, if I may. And Mr. Chair and the Board, this aligns very nicely with the MOU that we signed with the University of Mississippi Medical Center in Jackson, Mississippi, when we were down there last month. In fact Damon Darcey and his team were in Boulder, Colorado just this week working with Jeff's team and identifying areas for coordination and cooperation.

So that effort plus obviously the work that PSAC is doing it really does marry up very nicely and shows that we're really trying to make a big push in this space. We really feel as though telemedicine, telehealth is frankly an area that we could do a lot of strategic work on and we look forward to those efforts.

Todd Early: Thanks Ed. And lastly one of the other strike teams that we are looking at possibly formulating is a strike team centered around ID

credentialing and access management, which we think is going to be as critically important use of this network so…

Lastly I would like to brief you on our in-person meeting that we held in June. We had a 2-day in-person meeting that we held in New Jersey at the AT&T Global Network Operations Center. And I will say if you have not had a chance to see that GNOC it is – it is an outstanding and really a site to see when it comes to the operation of that network, the security of that network.

And I wanted to say thanks to Fred Scalera and his team for setting that up for us and for allowing us to come to the GNOC and really have that meeting. We had about 25 Public Safety Advisory Committee members who took the time out of their busy schedules to attend and provide input.

But I also wanted to say thanks to Ed Horowitz, Rich Stanek, Tip Osterthaler, Billy Hewes, Neil Cox, Paul Patrick and Brian Crawford. The Board members who joined us at that meeting and provided critical input. We appreciate you all taking the time out of your busy schedules to do that and thank you for that.

On day one we- we participated in breakout schedules centered around the roadmap provided really kind of a final discussion into the roadmap that was presented to-to this Board and appreciated the opportunity to do that.

We also toured the Global Network Operation Center, again it's a site to see if you hadn't seen that, and it really just shows the outstanding power and operation of this network and the security

of this network to public safety. It was really a highlight of our trip; also had a chance to see one of their Sat Colts.

On day two, we hosted Chris Sambar from AT&T and also Dereck Orr from PSCR. We heard updates from each of those organizations and what they're doing to further the innovation of this network and appreciate that very much.

We also had lengthy discussions from Dave and the PSA team on their engagement calendar and strategies moving forward.

And then also had an out-brief from the Tribal Working Group and the strike teams and had further discussions on those.

So again that sums up the work of the PSAC, Mr. Chair and Board members and again we thank each of you for your partnership and allowing us from the public safety community to have input into the build out of this network.

Edward Horowitz: Thank you Todd. And I think your reflection on the enthusiasm of the PSAC members is accurate. They are engaged. They're not just showing up and sitting back. They are showing up and they are contributing.

The staff of FirstNet Authority is also appreciative of the input but also we use you as a sounding board to try out things that - to try out ideas that we are not really sure - have legs and you provide valuable input to us as well. So I really do appreciate all of the things that you do. And I agree that that GNOC tour in addition to the in-person session was extremely valuable.

Paul Patrick: Mr. Chair?

Edward Horowitz: Yes?

Paul Patrick: I just want to take a moment to thank Todd for the work he is doing with his leadership and also with the executive team and moving the PSAC forward. As was mentioned the GNOC tour was amazing and I have heard a lot of feedback from attendees of how that's kind of changed their focus in what they thought and how they are now thinking moving forward with that and the strike team. So Todd, thank you so much for what you are doing and as a Board member I just want to let you know how much I appreciate that as well.

Todd Early: Thank you.

Neil Cox: Yes. Todd, I want to thank you for what you are doing running the organization. I would also like to thank you for inviting the Board members to the PSAC meetings.

                      There isn't one meeting that I don't go to that I don't come back learning something new. You know I'm not a first responder. I build networks and services and when I go and listen and I listen at some of the, you know, what – what people are talking about, what's on their mind. And one that stuck with me from New Jersey was a simple fact and I did not know this that, you know, EMS don't get paid unless they transfer – transport a vehicle - a person to a hospital.

                      And the trials that you are going to do now to do the telemedicine and video it so that they don't have to transport and they could still get paid for that service is phenomenal -- because you free up so many resources all the way from the hospital to the vehicle being

ready for another emergency and the –and the patients are being treated better.

But its - that type of innovation using technology, using video, sending it to the cloud everybody can see what was done, all the insurance companies are happy. But that's the kind of data that we get for those of us who aren't first responders when we go to these types of sessions and listen. So it's phenomenal, you're doing a great job and, you know, the PSAC is absolutely a gem for the FirstNet network.

Todd Early: Thank you sir.

Edward Horowitz: Thank you Neil. I just would like to add a little bit to what you said. So you may not be a first responder and understand kind of the dynamic but you are a business person and do understand that if you can come up with a method to provide a service in which a party can get reimbursed for their work you have got a business case.

So the contribution that yourself and other members who have a business orientation adds to the PSAC membership is a business component. And I'm really looking forward to the strike team and its development not just of the operational requirements but also how does one create a compelling business case so that this could go from a pilot to a policy?

So that's, you know, what I'm looking for.

Brian Crawford: Mr. Chairman if I could too. I want to just echo on both your Neil – Neil and your comments. Coming from an EMS and a fire service background, tele- telemedicine can be a game changer for

EMS. Fire service and EMS tried to implement and are still implementing community paramedic programs.

And some of those program were curtailed - are cut short because of the lack of funding. And so those programs provide EMS professionals and fire service professionals to go to the homes of those individuals and provide preventative care rather than waiting until they have an emergency and need to access 911.

And so those are all the things that the CSM and the Centers for Medicaid and Medicare are trying to implement with our managed care models to pay better for Medicaid reimbursement.

So this is a perfect example that plays right into the hands of the federal government what they are trying to do in preventative care. There is no – there is no better model to deliver that care than the first responders that are out there every day in those communities and know where those places of need are.

So I applaud you for what you are doing Todd out there and I look forward to participating in that and seeing the results of that action. Thank you.

Toddy Early: Thank you sir.

Edward Horowitz: Thanks Brian. Anyone else? Thank you. So before we move on to the reports of the Public Safety Advocacy and the Technology Committees, I want to just take note that we have changed in this instance the traditional report out of these Committees because both of them focus their activities on the roadmap program that you are going to hear about today.

And so there is an equal interest between the input that comes from the first responder community into the roadmap and the technologies that will be required to support the roadmap.

And so we have basically joint committee sessions and so when we report out I'm going to ask Rich and Neil to report out together. But just so you understand and there not "separate reports" it's a combined committee session. Sheriff Stanek.

Richard Stanek: All right. Well, thank you Mr. Chair. I'm excited to be here today to talk about the unique role that the FirstNet Authority plays in seeking and channeling the needs of public safety into the network. We've heard a lot of comments this morning.

The Public Safety Advocacy Committee though has been working very hard. The members of that Committee have been travelling across this country in tandem with PSAC and others in order to be at these different sites and locations. And the work they have done is nothing short of amazing.

Dave and his team have been there every step of the way and as we look at the roadmap a little later this morning you'll see exactly what I'm talking about.

The FirstNet's Authority goal is to serve as a catalyst for public safety innovation, educating and of course advocating for public safety needs. And to do this we need strong relationships at all levels as I just mentioned, and public safety engagement will continue to be integral with success of everything we do here at the FirstNet Authority.

As you are going to hear from Dave a little later he's going to discuss the Public Safety Advocacy Team and as I said we have been busy with the critical engagements with public safety and the goal of capturing public safety's operational needs. Developing the FirstNet Authority Roadmap, and of course investing in the future of public safety communications.

As Chair of the Public Safety Advocacy Committee, I recently had the chance to personally participate in many of these critical engagements as have other Board members with the PSA team. I can't stress enough how important these engagements are to continue to increase awareness of FirstNet and to solicit public safety's feedback to incorporate into the roadmap.

I want to turn the meeting over to Dave Buchanan, the Executive Director of the Public Safety Advocacy Division, and Jeremy Zollo, the Executive Director Enterprise Strategy Division to introduce the FirstNet Authority roadmap and update. Dave and Jeremy?

Dave Buchanan: Thank you Sheriff Stanek. I want to start today by looking at a slide that we actually ended the March Board meeting with in Jackson and Ed Parkinson concluded the meeting with this slide. It's really the areas of focus for the First Responder Network Authority for this next quarter and we talked at that meeting about the things we would be doing between the March meeting and the June meeting and I can tell you, you're going to hear a lot here in the next session here about what we've been doing to engage public safety, how we've been building this roadmap and what it's going to lead to ultimately with –with – with looking ahead towards investment.

I'm going to share the time today with Jeremy and Ed and Jeff and we're going to do really three things with you today. One is describe why do we have a roadmap, why is it important, why is this important to the First Responder Network Authority, why is this important to our partner, but most importantly why is it important to public safety?

Second, I'm going to talk to you about how are we producing this roadmap? How are we getting the critical inputs from first responders and how are we integrating their needs into the roadmap? And then finally what is it for and what does it say and how are we going to use that roadmap going forward?

That's how we're going to use our time and I'm going to now share the screen with Jeremy Zollo.

Jeremy Zollo: Thanks Dave. So what we wanted to do is really take a look at the opportunity that we have. The opportunity to continue to be a catalyst for public safety, to continue to engage across a diverse set of stakeholder groups that have something to offer to helping us advance and push the network to the next level.

Public safety being at the core of that, understanding their needs, their drivers - we've heard a lot of that already today and over the last few days and over the engagements that Dave will take us back into in a couple of minutes, but public safety being at the center, we have to understand what they need.

We have government counterparts that are focusing on broadband related activities that affect the network: policies, standards, they have dollars that they could bring through grants. We need to be

more proactive and collaborate with them and find a way to speak the same language on what we want to accomplish for this network.

We have industry where we've already done an incredible job of getting our partnership with AT&T to deliver the network. From Day one, starting with a nationwide footprint and having AT&T pour their own dollars and invest into the network, has been invaluable, and it's really given us what I like to call three strategic assets for us to be a differentiator in this community.

One is it's the only network dedicated to public safety. You've heard that before today and it is the truest thing we can ever say. We have dedicated spectrum. We have dedicated dollars to putting back into the network through this partnership and this contract that we set up with AT&T. And on top of that we have at the foundation a committed organization with deep expertise.

We have public safety representatives, we have engineers, business folks, finance, legal - all these people at FirstNet come to work every day trying to figure out what we need to do to understand what public safety needs in the network and then how are we going to take it to the next level and continue to enhance that experience they have on this network.

So the way we wanted to start the dialogue out there was we had to come up with a transparent way of talking about what we envisioned in the network. What is the network? What do we want to accomplish? Where do we need to target our dialogue?

So the roadmap has been our way to express how FirstNet the Authority is going to commit to work to advance this network. It's going to look at a technology framework based on domains that we have set up that's driven by public safety's feedback, understanding their needs, how they operate, what they need out of the network and then analyzing where industry is going with technology around the advancement.

And then setting us up with priorities and programs that we have to launch as FirstNet the Authority to continue and guide our investments in how we spend our dollars and we apply our resources as an organization. So the way we did it is we broke the roadmap into six domains: the core, coverage and capacity, situational awareness, voice communications, secure information exchange, and user experience.

These domains were represented by 33 individual technology areas where we began engaging public safety across the country. We sent a survey out to over 250 agencies who would prioritize and look at these domains and these 33 technology areas. This became the foundation for us to begin to engage public safety.

Then we went out, and Dave will walk you through this, and spoke to over 600 public safety agencies. We collaborated with them, we asked for their feedback, and we started to create a vision for what we expect out of each of these domains for the network. But right now, Dave is going to walk us through what we do at public safety and the results that we got as an organization.

Dave Buchanan: Thanks - Thanks Jeremy. So I'm going to take a few minutes and really share with you Mr. Chairman how we are engaging public

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safety, who we're getting to meet with while we engage with them and what -what we're learning from them.

On this slide it really shows the process we've used starting in January of this year to use public safety's input and use public safety's feedback to help us begin to narrow this roadmap into the six domains that Jeremy just shared with you.

When we first uttered the word roadmap at the December Board meeting, we quickly and swiftly recalibrated the way we were going to engage public safety going forward. The kind of topics we wanted to share with them, here Jeremy describe the surveys we were able to put out in - in January to help us begin the narrow what literally could have been hundreds of topics that could've been the titles of these key areas of focus for a roadmap to begin to narrow those down.

You heard Todd mentioned the work we did with the PSAC in January and February to again survey them, to use their advice and counsel on what topics should be focused on. We convened focus groups in March and - and again made available to first responders in all 56 states and territories the opportunity to engage us in January, in February, and March as we began to narrow those topics.

And Jeremy in - in the next session is going to go into more detail about what is inside each of these, but for me the most important part is - is where we are now. We've got the six domains. We have this process by which we're engaging public safety. We're going to continue, as the slide demonstrates ,to provide draft materials and in – and – and written materials to public safety, get their feedback

on it, to help us refine it, revise it and improve it as we continue to bring that forward.

What I like best about this process that we're doing here in 2019, and the feedback we're getting from public safety about what they like best about it is really the same model we used since the beginning of FirstNet - since 2012. We're engaging public safety, we're getting their inputs, we're using their inputs to then improve deliverables that are going to bring the network to - to first responders.

We use that same process 2012 through 2016 to and - and Dave Vice was one the leaders here in Indiana as we did initial consultation 2013 and 2014 to get public safety's inputs on what should be in that first RFP. We brought a draft RFP forward, we got first responders in the 56 states and territories - inputs on that produced the RFP.

We used that same process then in 2017 as we brought draft state plans to first responders, to states, and public safety, got their input and were able to then improve on that draft and ultimately bring a final state plan that all 56 governors in the 56 states and territories opted into.

And now in 2019 we're going to use that same model in 2020 and beyond - engaging public safety to get their input and this time it's to produce this roadmap. We think this critical document that's going to be the guiding light for what we're going, where we're going to direct the network in the future and make sure that we're bringing the network to where public safety needs it to be.

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So I want to talk a minute about sort of who we've been meeting with and what we've been talking about and these slides, this slide in particular on the right-hand side, shows you really the breadth and - and the different types of disciplines, organizations, and people we've been able to meet with during our – our 606 roadmap engagements here in 2019, from January 1st through May 31st.

As Jeremy mentioned over 600 engagements ensuring we're hitting a variety of, not only disciplines, which you see here in the pie chart, but making sure we're hitting federal, tribal, state and local public safety, making sure we're hitting urban, rural and suburban, Western, Southern, Eastern, Northern states, to get that variety of inputs and make sure that our team that's spread across five time zones is touching with the right first responders.

On the left-hand side what you see is since we identified the six domain topics in mid-March, used public safety's inputs to narrow those topics, what – what this shows is we've really been hitting the roadmap hard. Those are the numbers, the percentage of engagements that have touched those roadmap topics.

So since – since – since we identified the roadmap domains, 82% of our engagements have touched on coverage and capacity, 74% of them have been at user experience. Every one of our engagements we're doing and we worked very hard to ensure that we're prioritizing this topic and prioritizing this conversation.

So as I round out the dialogue here about how we are engaging public safety, I wanted to call out just four specific events and a number of you here on the Board were helpful in – in providing inputs and delivering content at these meetings.

On the far right you see we spent a day in Windsor Locks, Connecticut having a state roadmap engagement with first responders from the State of Connecticut. Three dozen first responders representing all of the – all of the key disciplines, able to dialogue with us primarily about coverage and capacity and their needs for the network going forward. And - and helpful for us it's helped us begin to think about what criteria and data we should be using as we think about how to prioritize additional investments in coverage going forward, that's been a key contribution in all of our roadmap engagements and we got a good dose of that in Connecticut on June 6th.

As Todd mentioned we were in Bedminster, New Jersey, on June 4th, spent a day with - two days with the PSAC but a day dedicated to roadmap engagement to get the feedback from the 43 members of the PSAC on the six domains.

We dedicated time, breakout sessions and small groups, again very helpful as we get the feedback and bring additional operational context to this roadmap so we can continue to refine it and improve it. In May, at the end of the month after Memorial Day, we spent two days in Iowa. Tom Lampe, the single point of contact and – and a longtime friend of FirstNet who's a member of the Iowa State Police led a Region VII roadmap summit. We had 120 first responders from Missouri, Kansas, Nebraska and Iowa. We had breakout sessions on the six domain topics. Again to be able to get precision and details from those first responders on those topics, help us better understand their needs for the network going forward, and be able to allow us to bring more definition and refinement to the roadmap going forward.

And last but not least, I want to call out our nationwide Public Safety Roadmap Summit we hosted on June 12th in Phoenix, Arizona. We had 100 first responders from 39 states and territories that joined us in Phoenix. We had dedicated time on the six domain topics again continued refinement, details, feedback from first responders. What made this one different and I think is a model for us going forward, is that we're able to identify and invite first responders who are really super users on the network and can give us I think the very best feedback.

Seventy percent of those that attended are already FirstNet users, 80% of them had already been to roadmap engagement, 98% of them said that they used LTE every single day as part of their public safety operations. And so we were – we got - I will go ahead and say the very best feedback to date was from that group.

And so we're going - as we think about the roadmap going forward and we think about what we're going to do between now and the next Board meeting, Mr. Chairman, we're going to continue to find ways to put ourselves where first responders are, we're going to continue to bring this dialogue to the first responders and public safety agencies so we can again continue to get their feedback to help us ensure that this roadmap reflects their needs as we think about how to use that roadmap to guide our investments going forward.

Jeremy Zollo: So as a result of those engagements what you see here is we're going to go through a sort of sneak peek of how we begin to develop the roadmap and create vision and expectations for what we want to accomplish in each of those domains.

At the foundation, the feedback we got the core being the most important thing. We need to make sure that the core is technology current, it possesses a necessary set of the features and enablers to support all the mission critical services and applications, the performance, the security of the network - all is driven through the core. So our vision is to make sure that we keep that core technology current, we make smart investments in the core, we make sure that it's generationally ready based on the standards that are put out by industry.

Edward Parkinson: Yes. I mean one of the things in terms of the core that we're really focused on is to ensure that the network is 5G ready. FirstNet is going to be ready for 5G. We're going to be able to offer 5G services to public safety and just as FirstNet has been the leading edge of technology and offering the best services to public safety in a 4G LTE environment, FirstNet will be at the cutting edge of 5G. We're going to be able to provide those type of services, be at the forefront for public safety to ensure the capabilities that these evolving technologies will be able to provide. FirstNet will be at the forefront of that too.

Jeff Bratcher: And I would just add Chairman Stanek and Chairman Cox, again the core is one of the key differentiators. We have a dedicated network as Tyler explained earlier for first responders, dedicated network identifier, dedicated spectrum.

The core is the brains of that network and again we signed a five-year contract to get the core built in the initial phases back on March of 2018, I'm sorry, March of 2017, so we're 27 months in to the core and where it's at now. We're excited about the features and

capabilities over the next couple of years to round out that first initial five-year phase.

But we can't stop and wait for the end of that five years to then decide what next? As Tyler mentioned there's applications and things they're using now. We want to continue to drive that to meet those public safety needs and communication needs for this network. The…we have teams focused on this 5G initial capability, how we're going to start working that into the FirstNet core as well going forward. So really excited on this, again this is one of the foundational elements of the roadmap. We have teams focused in this area working every day on how we're going to improve this and expand it over the coming years based on the public safety input that we're getting.

Edward Horowitz: If I can just…build on both your comments on the core, you're going to be 5G ready - 5G has got a lot of different routes it might take, but the core has got to be ready. So it's not like we're going to decide where 5G is going, we're going to be able to capitalize on what we think are the best ideas and build to it.

Jeff Bratcher: Absolutely Mr. Chairman. The feedback you know and the discussions we've had with the Executive Committee and the Technology Committee and the Board yesterday, definitely that 5G ready, the industry has - has accelerated that deployment and - and generational shift. We don't want to be, you know, behind the curve on that for the FirstNet network either. So we have teams working right now with AT&T on that as we speak.

Edward Horowitz: Correct, yeah - thank you.

Edward Parkinson: And Jeff just on that, having a physically separate core, that too is a differentiator for public safety adding things such as additional security, redundancy and so on isn't that right?

Jeff Bratcher: Absolutely. As the PSAC we're able to see the GNOC we also have the dedicated security operations center that monitors everything for the FirstNet network and that public safety traffic to ensure it is one of the most secure networks in use today by public safety I would say worldwide.

So that's definitely a key differentiator in what the not only the legislation, but those that provided input in developing the legislation that created FirstNet and our mandates. They recognized that need of a dedicated core network for their user traffic to ensure it's protected and to also be able to advance their capabilities and features to support the mission critical needs.

Jeremy Zollo: So as we look at this domain it was important for us to make sure that when we spoke to public safety that we didn't forget about it, right. The core is vital to the success of the entire network and we need to make sure we apply the right resources and dollars.

And then on top of that that we have the right conversations with public safety about their expectations on the mission critical services and the priorities and how they are experiencing it today and what they expect out of it tomorrow. As we build on that the other foundational element and the domain we had was coverage and capacity, and simply put and I think we heard a lot of it today, particularly from Tyler, which was we need to make sure that it is available when and where public safety needs it and that can mean a lot of different things.

It's not just the physical RAN that is built out and deployed and producing access to the network through Band 14. These are the deployable elements that are out there and other unique platforms that we have to start looking into to help public safety have access, additional capacity, and coverage when and where they need it.

So our dialogues will now be more focused on a set of priorities based on these technologies, based on this vision where we will continue to have dialogue with public safety, industry, and our government counterparts on advancing the network and advancing access to the network.

Jeff Bratcher: And I would just add on this one, I talked about the core and where we are at contract-wise, I've got some updates - an update slide later, but we're only 15 months in to that Band 14 build. Tyler, I was really excited to see you use the same app I use to see what band I'm on wherever I'm out at meetings. That Band 14 build is ahead of schedule. AT&T is pushing that hard, but we're only 15 months in to a five-year build.

So that's supposed to run through 2023, but now we want to start understanding okay we know what will be built out but what are areas we can start looking at investments to enhance coverage, further coverage, bring more deployables to market for FirstNet focused on those public safety needs across the U.S.

So we're really excited to get another key foundational element of a network was the radio access network, the cell sites and all the activities we're doing with that and the core network. So these are

two of our key focus areas, especially in this first year with some of the investment dollars we do have now moving forward.

Jeremy Zollo: As we move through to the next domain, this is situational awareness, right? So how do we get real time access and distribution and collection of information out there for hazards, threats, and conditions on the network in a manner that is tailored specifically to public safety's operations? Location based services was one of the biggest topics that we talked about here - mapping, GIS. How do we get that information? How do we create the secure access to that information in a timely manner for public safety is where we envision taking this domain and our dialogue with public safety as we move forward?

Additionally, voice communications, that domain is really focused on providing high-quality, reliable voice, including push-to-talk, and all of the available voice related technologies that are needed to integrate and get voice communications in a manner that public safety has the most advanced feature sets that are available for first responders on the scene.

So how do we complement that LMR world, right? We can't just do it with voice anymore. LMR is an incredibly reliable tool, and now we are creating another incredibly reliable tool that just doesn't rely on voice, it gives you different features, different sets and access to voice communications in a way that we've never had before.

Edward Parkinson: You know I think what's also important about this too, push-to-talk is going to evolve into mission critical push-to-talk, and ensuring

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that these are built upon global standards that are adopted through GPP - 3GPP, and then ensuring that there's choice on our system.

You know we're never going to be dominated by just one application or one service. We have to ensure that there is competition in the market even on our platform and I think this is a tremendous opportunity for the mission critical push-to-talk capabilities that will hopefully be coming sooner rather than later, to ensure that as public safety leverages push-to-talk solutions and then in time mission critical push-to-talk solutions.

The voice communications piece of this domain is really going to be frankly I think a potential game changer in the tools and services that we can provide on FirstNet.

Jeremy Zollo: Secure information exchange - this is envisioning how we enable secure, reliable and easy to access information, critical information on the network and across a variety of resources. How do we look at cyber? When -when we took a look at a lot of these domains, it wasn't just about the technology that was there, but it's our ability as an organization to collaborate with government and public safety and industry around policies, procedures. How can we affect positive change not just through the network and the physical devices, but the policies and procedures that we have to start taking a look at as an organization where we can affect the way that you access information in a secure manner and easy and available and reliable all the time.

So, it's more than just dollars back into the network to advance it, it's resources that we can apply through FirstNet the Authority and collaborate with our government counterparts and really start to

make a difference on the things that public safety thinks is important to them.

And then finally, our user experience domain, which is envisioning an experience on the network that's really driven by public safety's operational needs. How do we allow users to stay focused on their primary mission? These are the applications that we were talking about earlier. These are the devices, specialty devices. How do we get that unique differentiated set of services and platforms and solutions out there that public safety needs to access and how do we prioritize our resources to make an effective change in the community?

Edward Parkinson: So - so what we're seeing really here is this holistic view and I think that's incredibly important. One can't look through public safety broadband, public safety communications through a myopic approach, you've got to look at the entire ecosystem and that's how we are really approaching this.

You have to understand where public safety is. You have to understand the trends and frankly the evolving threats that public safety have to face. Then to complement that one has to look at industry, where are we seeing the market move and how can we take advantage frankly of solutions that are being adopted in the commercial space and provide public safety applications as a spinoff to that.

I think having that complementary vision is so, so important so that when we do move through this roadmap and as we do work towards investments and provide those type of solutions to public

safety, we're looking at this through this holistic lens that I mentioned.

Jeremy Zollo: So as a next step as you've seen the visions for these domains, our continued commitment is to work through the roadmap and identify priorities, opportunities, programs, and activities that we want to take on so that we can have much more targeted dialogue with you about each of those domains and the vision we set.

So over the summer, we will be refining, working, and releasing the roadmap that's going to identify the priorities that we want to take on as an organization and then the programs and activities that we're going to put in place to continue to engage with public safety and then transform the network and transform the way that public safety operates and leverages the network and its services.

So that is our commitment to public safety, it's our commitment to continue to go out there and advance the cause with industry to get the best out of them and use public safety as a nationwide platform, not just an individual agency or discipline, continue to drive the value we got out of this network and this deal that we made and this partnership we've created with AT&T and use the roadmap to advance the network and work together with all of our stakeholders.

Jeff Bratcher: Mr. Chairman, I would like to close out this briefing to the combined committees on just a network status update based on publicly released information.

As of May 2019, we have more than 7,250 public safety agencies that have adopted and are using FirstNet, with over 600,000

connections on the FirstNet network now. AT&T, as I mentioned earlier, is actively deploying our dedicated spectrum, Band 14, and as of the same timeframe in May, AT&T as stated it's deployed that in more than 600 markets across the United States.

AT&T continues to drive their vendors and hit the ground running with this deployment. Again, it was a five-year task order for the radio access network deployment. We're 15 months in, but AT&T is well ahead of schedule, and they've stated they've already hit that halfway point of that Band 14 buildout.

By the next contract milestone, which is the 60% of the Band 14 buildout, that is contractually due in March of 2020, but AT&T has already publicly stated that they're well on track to reach that by later this fall of 2019. Again, keeping that six to eight month ahead of schedule pro - progress on track.

So we're very excited about the activity with that. As of June, we've got over I believe over 40 now different applications within the catalog on the FirstNet catalog, and more are being added every month, and there are now more than 100 unique devices on the NIST list of certified devices for the FirstNet network.

Recent speed tests have shown - we had a briefing on that from AT&T with Ookla and some of the others that do this across the country, that the FirstNet network is 25% faster than any of the other commercial networks, and again that's really showing the dedication of that spectrum and the use of that Band 14 spectrum for those FirstNet users.

I wanted to - Tyler mentioned earlier, we have to hold AT&T feet to the fire, I think is what you said and we're absolutely doing that. We have a dedicated staff with Richard Reed and our Network Management Office that analyzes hundreds of deliverables every week on what this contract is paying for and what we're receiving for that from AT&T as we build this out - this network based on public safety's needs.

Our feet are also held to the fire. We have several different audits that Erin is very familiar sitting next to you there with the Government Accountability Office, the Office of Inspector General - they're ensuring we're doing the right things as well. So we're very confident in the approaches we've taken.

Again the next phase of this is leading to that investment. Again driving back into this network, what public safety needs to communicate and save lives every day? Thank you again Tyler for your service. I want you to know we are holding their feet to the fire, you have our commitment on that. With that Chairman, that wraps up my update.

Edward Horowitz: Thank you David, Jeff, Jeremy and Ed. Terrific. I think we're going to turn this over to Neil in a second. I guess I wanted to comment on something that Dave, you led off with, which is the methodology that you're employing here, and that it was successful at the foundation of the enterprise, the FirstNet had used it a number of times.

I've witnessed it by participating in some of these meetings on how you're able to capture the information and then set a priority and Jeremy, you just described how we're going to use that as a basis

of determining where we're going to put our investment dollars based on the priorities.

And one thing you didn't describe Dave, is that when you had this list of potential possibilities in each of the domains, that you had a graph which – which charted what is the you know because the best understood or highest need versus the highest impact division of this and so there's detail behind this, which is extraordinarily valuable as well, and I compliment you and the entire team for what you are doing. Neil?

Neil Cox: Thank you. First of all thank you Jeff [Bratcher] it's really, really pleased to hear that AT&T is far ahead on their Band 14 deployment. This is what public safety fought for to get this spectrum and its public safety spectrum and knowing that we're ahead of schedule on the build makes me extremely happy.

Also, all of the apps that we have in the app catalogue and all of the approved devices now that we have that are Band 14 compatible that can be used on the network is – is really good to hear. But I also wanted to comment a little bit on the roadmap before I turn it over to Tip and - because I think the roadmap has made it very simple for us to see the vision ahead for the FirstNet and what this network can do.

Chairman Horowitz talked about the core. The core is one of the domains in the roadmap and we will be 5G ready and we'll be 6G ready and 7G ready and 8G ready whenever they come - come aboard.

But I think the important thing is the foresight of everyone at FirstNet to essentially demand a separate core, so we have our separate network. This is not a network shared with anybody else, it is a separate network, and as Jeff mentioned, you can run speeds on this network, it's a separate network and it flies compared to other networks out there.

So the core is – is key and the core will always be next generation ready when that next technology is ready to be deployed. There's a lot of things that go on. There's no sense of having a technology deployed if there's no devices deployed. So we've got to do it in a timely fashion and by having our own core we can do that.

We talk about coverage and capacity. It's more than just getting signal into an area, it's how we use that signal, how we're going to use technologies to get into buildings, how we provide coverage in the case of emergencies. Now I was so pleased to learn that when AT&T showed the FirstNet deployable trucks lined up behind those vehicles that were used to clear the roadways after a hurricane.

That the network comes in on wheels and is back up and working right after a major disaster and they've learned how to do this. There's no sense of trying to get in there before the roads are cleared, but we're right behind the bulldozers and everything else and then the network comes in on wheels.

So it - the coverage and capacity goes way beyond - and they'll be other technologies developed. Knowing that that technology works so well for public safety, it won't be the technology - I mean we've been using COWs for 20 years, believe it or not. But there will be

other types of technologies that will be used - there will be blimps, there will be aerials, there will be other types of technologies that now that entrepreneurs know that we use this and first responders will use it, that's why they will go out and develop things.

Voice communications - you know unfortunately we speak analog and we hear analog but we've got to convert all of this to digital in between and we're able to do that and those technologies will do that.

Situational awareness - this is the one I get really excited about and I get excited about it, because Tyler when - when you talk about you carrying this Band 14 phone, we've made you a Java browser on two legs walking around. That phone has so much power in it and what we can do with situational awareness by putting certain sensors and things - that that information could be shared with those who need to know.

So we don't want to limit ourselves to this is what we're going to do and it's going to be a push-to-talk or whatever, we don't want to limit ourselves. We've got to think outside the box and it goes into the next one, which is user experience.

I remember in 1986 I took a picture of a payphone to the Board of Directors of Ameritech, which I was an officer of, and the sign that I took a picture of this payphone above that payphone had a sign that said you wouldn't be standing here if you had a cellular phone. That was in 1986. Right.

So, 14 years later - it took 14 years to get out of that technology, but at one point it became no value at all. We gave the whole

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payphone division away to somebody that would take it, but again it went back that you wouldn't be standing here.

So when somebody - when I always hear mission critical push-to-talk I always say in my own voice replacement at the end and I tell you I always say the word replacement because I still don't know 20 years from now people will want to be pushing buttons like they did since 1933. So there are other technologies that can do the same things and we see if - as technologies evolve.

And then the other thing about this network that is so important that nobody else can do in this space and that is the fact that we do have our own security metrics on this network. Nobody else can do this and this is security metrics for first responders. This will be the most critical wireless network ever built in the U.S., maybe in the world and we will keep it that way.

And that's one of the things and with some of my Board members that are - committee members on the Technology Committee they're going to ensure that we do that. So it's - but I'm just so impressed on how simple we've made the roadmap. It's something that entrepreneurs, business people, everyone can understand how simple we did this.

So on the behalf of the whole technology committee, Jeff and everybody on your team, we thank you for your work and I'm just really pleased to where we are at. Thank you.

Edward Horowitz: Thank you Neil. Any comments from anyone? Okay with that can I - anybody? I turn it over to Tip.

Tip Osterthaler: Thank you Mr. Chairman. Thanks for the update on the roadmap. I've been watching this evolve as everyone else has and it's gotten to the point I think where it makes sense, it does lead very well into the discussion we're going to have now - a brief discussion about financial management.

Not the most exciting topic we talk about at Board meetings, it is essential though because…

Kim Farrington: Sure it is.

Tip Osterthaler: …it underpins, except for Kim, the CFO, it does kind of underpin everything we do and we owe a transparent and compliant financial management regime to our stakeholders, the first responder community, but also the taxpayers and the public that are served by the first responder community.

The roadmap does underpin everything we're doing and it in particularl informs the investment decisions that we'll be making going forward and that is really something we're going to dig into a little bit more deeply here during the remainder of this discussion.

Fundamental to the evaluation of investment opportunities are the FirstNet Authority's investment principles, which were adopted by this Board in March, and which require investments in the FirstNet network to meet four criteria. First it must be derived by - derived from and benefit public safety. Second, they must maintain and advance the foundation of the network.

Third, they must consider a balanced approach and provide value to public safety. And fourth, they must be fiscally responsible and reflect strong financial management.

Building on these principles today, the Finance Committee is voting on a Finance Committee Resolution 22, which is entitled Financial Responsibilities for Reinvestment. The resolution recommends that all investment - all amounts of funding obligated from the FirstNet Authority Reinvestment and Network Enhancement Fund be approved by the Board.

The resolution establishes a transparent process for the Board's approval of investments in the FirstNet network and further ensures the investment principles articulated by the Board are met. Before we move to formal consideration any other members of the Finance Committee wish to comment?

(No response)

Okay not hearing any further comments, we are prepared for the Finance Committee to vote on a Finance Committee Resolution 22, Financial Responsibility for Reinvestment. Madam Secretary would you please read the operative language.

Karen Miller-Kuwana: Yes I will. Before I begin I just wanted to identify that in addition to yourself, Chair, Brian Crawford, Paul Patrick, Dana Wade and David Zolet are on the Finance Committee and will be voting on the finance committee resolution. We'll then turn it over to the Board for a formal Board resolution that mirrors the language and that will be a full Board vote.

So with that said, the operative language which the entire resolution will be posted on our website after the vote. But the operative language, now therefore be it resolved that the Finance Committee recommends that the Board - recommends to the Board

that the delegation set forth in Resolution 78 do not apply to funds in the reinvestment and network enhancement fund - funding category.

Now therefore be it resolved, that the Finance Committee recommends to the Board that no funds may be obligated from the reinvestment and network enhancement fund funding category for the purpose of investment without Board approval.

Now therefore be it further resolved that the finance committee recommends to the Board that Resolution 78 Delegation of Finance Responsibility remain in effect to the extent that it does not conflict with this resolution or subsequent Resolution 100 that the Board will vote on following this one.
May I have a motion?

Paul Patrick: So moved.

Brian Crawford: Second.

Tip Osterthaler: So, I guess to complete the consideration of this formal consideration by the committee, any opposition or any abstentions?

Karen Miller-Kuwana: I apologize. I took out part of your role Tip. I did it to recall for a vote.

Tip Osterthaler: I jumped back.

Karen Miller-Kuwana: Yes. You were supposed to do that. But we need to call for a formal vote.

Tip Osterthaler: So we do now call for a formal vote. All in favor please say aye.

Group: Aye.

Tip Osterthaler: Opposition? None. Any abstentions? Hearing none the Finance
                                Committee has approved the resolution and thank you Madam
                                Secretary. Will you please make the resolution available to the
                                public following this meeting?

Karen Miller-Kuwana: Yes. And again apologies.

Tip Osterthaler: It's quite all right. And we also need to pass now to the Chairman
                                an opportunity to present the resolution to the entire Board.

Ed Horowitz: Thank you Tip, and thank you Finance Committee for crafting and
                                approving this Resolution 22. We now have to look at this from a
                                complete Board perspective, and have the Board, based on the
                                recommendations from the Finance Committee, also vote on it. So
                                Karen can you please read the operative language here.

Karen Miller-Kuwana: Yes and apologies so much of the duplication that in addition now
                                that the Finance Committee has recommended that the Board
                                approve this is the language that allows the board to approve.

                                So again, now therefore be it resolved that the delegation set forth
                                in Resolution 78 do not apply to the funds in the reinvestment and
                                network enhancement fund funding category. Now therefore, be it
                                further resolved that no funds may be obligated from this fund for
                                the purposes of investment without Board approval.

                                And now therefore be it further resolved that Resolution 78
                                Delegation of Financial Responsibility remains in effect to the
                                extent that it does not conflict with Resolution 100.

Edward Horowitz: Thank you Karen. So, may I have a motion to approve Board
                         Resolution 100?

Richard Carrizzo: Motion approved Board Resolution 100.

Ed Horowitz: Thank you. Second?

Neil Cox: I'll second.

Ed Horowitz: Thank you Neil. All in favor say, "Aye".

Group: Aye.

Ed Horowitz: Opposed nay. Hearing none. Any abstentions? Seeing and hearing
                         none. So the resolution passes. Madam Chairman will you - would
                         you Madam Secretary, would you please make this - I'm thinking
                         Susan, Madam Secretary would you please make the following
                         resolution available to the public following this meeting?

Karen: I will do. Thank you.

Ed Horowitz: Okay. Tip let me turn this back to you for the completion of the
                         Finance Committee update.

Tip Osterthaler: Okay thank you Chairman Horowitz. The last quarter's been a
                         typically busy one for the financial management team and there are
                         number of - of issues that have taken a good bit of staff time
                         though, but I'm happy to report that the finance team did achieve
                         during the last quarter another clean financial audit.
                         Congratulations Kim to you and your team for that. It's no small
                         accomplishment.

Kim Farrington: Thank you Tip.

Tip Osterthaler: In addition, we've been spending a lot of time talking about
                       enterprise risk management, and we're making a lot of progress in
                       the implementation of our enterprise risk management program.
                       Again, it's not one of the most exciting things to talk about for a lot
                       of people, but it does - it is extremely important from a
                       management standpoint and a fiduciary responsibility standpoint
                       for the Board as well. So thank you for your hard work in that area
                       Kim.

                       And finally, the 2020 budget formulation process is well
                       underway, and happy to report it's also a little bit ahead of schedule
                       and I'll turn it over to Kim now so she can fill in some of the
                       details on these issues. Kim?

Kim Farrington: Thank you Tip. Good morning everyone. I'm going to start today
                       with talking about our cumulative operations for fiscal year '19.
                       Although financial management might not be as sexy as the
                       roadmap, the technology, the innovation that we've been talking
                       about this morning, it actually is a good news story in the financial
                       management arena at FirstNet.

                       And to begin that first good news story is related to our cumulative
                       operations for fiscal year '19. As you can see from the slide, we
                       actually are - we have utilized about $45 million of our total $81
                       million of obligations budget, and this is represented by the blue
                       bar that's at the bottom of the graph and the $81 million red line at
                       the top of the graph, that represents the Board approved budget for
                       fiscal year '19.

This means we are actually executing about 50% - 56% of our total obligations budget for the fiscal year. From an expense standpoint, we have utilized about $39.2 million of our total $76.5 million expense budget. This is represented by the orange bar that you see and the green bar that you see at the top of the graph representing that Board approved expense budget.

This puts us at about 51% utilization of our expensed budget for this fiscal year through May 31st. But this is actually a good news story, because unlike most federal entities, the funding that we do not utilize this fiscal year actually we will invest or put into that reinvestment fund for future use in - for FirstNet. So this is a really good news story that all of the money that we have not executed and will not execute this fiscal year due to the good financial stewards across FirstNet, we actually can reinvest those funds into the network for future years.

The next item I want to talk about, the other good news story as Tip referred to, is our fiscal year '18 financial statement audit summary. For the sixth year in a row, we have received another clean or unmodified audit opinion according to our independent auditors Harper, Rains, Knight & Company.

We are very proud of this clean audit opinion and the accompanying accomplishments. We have no material weaknesses, we have zero significant deficiencies, and we had zero internal control management level findings. So from an audit standpoint we are as clean as we can possibly be, and I thank the CFO team for their hard work in obtaining this accomplishment, and also the support that we get across all the business units at FirstNet.

But you might ask what does this mean to a person who's not a CPA, who doesn't really care about these words, these are new terms to you. This basically means that for first responders, for any taxpayer, you can rely on the financial standing of FirstNet, and this is especially important as we move forward in making investments back into the network in support of public safety.

So again good news story on the financial front. If there are no questions, that actually concludes the financial update.

Tip Osterthaler: Thanks very much Kim. Any members of the Finance Committee have any additional comments or any questions from anyone? If not, then I'll turn it back over I think to Jeff and Ed for closing remarks before they turn it back to the Chairman.

Jeff Bratcher: Great. Thank you Tip. So just one thing as we wrap up today's Board meeting, I was looking back through the last couple of public Board meetings and I you know I personally want to thank all of the FirstNet staff and all the public safety responders that we've worked with over the last year. We've really accomplished a lot since the December Board meeting.

If you recall, we brought forth the strategic plan for FirstNet 2.0 and how we're moving into the next phase. In March, we had the investment principles approved as Tip mentioned earlier in the Finance Committee. We also recognize the need to develop a roadmap and understand those public safety needs, not just for the initial five years of what we are building now, but what this network needs to look like over the next 20 years, 23 years remaining under contract.

So lots of effort across all the teams. Thanks to Jeremy and Dave and all the teams across FirstNet that have been working on this nonstop to get us where we need to be.

As mentioned in the last Board meeting, we do have investment funds available this year. Our goal is to target investments for this fiscal year. The Chairman has challenged us to make that happen. We've accepted the challenge and we're pushing hard to make that happen soon, later this summer and into the September Board meeting. That's really what we've been focused on.

There's five domains within the roadmap, four investment principles, and five objectives in our strategic plan. So that at a high level, I'll keep saying that until at least seven times, Mr. Chairman to meet your - you've got to hear it seven times goal to capture it, but that's what the team's really been focused on, as well as keeping, you know holding AT&T accountable as Tyler mentioned, building what we've paid for and what we will be paying for over the next several years with additional milestones.

But I'm excited and looking forward to the future. I know the team's excited and thank you again to all the Board members for your service and participation and guidance to the not only senior managers but your involvement with the staff means a lot to them as well. They truly appreciate that and having that interaction with you directly is invaluable.

So thank you very much and I'll turn it over to Ed for some final remarks and then back to you Mr. Chair.

Edward Parkinson: Thanks Jeff. I would also like to thank our host chair in Indiana. I've been fortunate to have traveled the majority of the 56 states and territories, from American Samoa to Maine, and I always enjoyed my time in Indiana. And I think it's amazing to see the great work that Tyler and the team, Kelly and others have been working on, because the State is really at the forefront of what we can only envisage and you guys are the ones actually taking it to that extra level.

Twenty-six states I believe to opt-in at the very, very forefront of the work we're doing, and the update that Tyler provided I think while it's only just a glimpse, it really does show frankly, the art of the possible. And I think it's that art of the possible that we really heard of today when Jeremy and Dave were reviewing the roadmap, identifying the needs of public safety, have been able to work on for us.

Reiterating our commitment to public safety because we cannot do this in a silo. It has to be a collaborative approach from the federal, state, tribal, local perspective ensuring that the market comes into play so that public safety can take advantage of the interesting and fascinating opportunities that are coming down the line.

Ensuring that the FirstNet team, as well as the Board is heavily involved in the development of the roadmap, and it's that cross collaboration that you can see there in the middle also with our partner AT&T to ensure that we can provide the very best network in the world for public safety.

And ultimately all of this leads towards investment and the challenge that Jeff referenced, that Ed and the rest of the Board has

given to the management to ensuring that we do hit those investment goals by the end of the fiscal year is certainly one that is at the forefront of everything we're doing.

And so, as always, our commitment is here to serve public safety. Our commitment is to ensuring that we provide the very best network for public safety, and as we start looking towards a 5G environment, we will be FirstNet ready. We will be making investments in that space in the coming months and years to ensuring that the system is the very best anywhere in the world for public safety and remains public safety's only dedicated network.

There's no other organization that has a FirstNet Authority to which acts as that voice to and from public safety into our partner and I think that differentiation is something that does make FirstNet unique and does add extraordinary value to what we're trying to achieve. So, thank you Mr. Chairman, I appreciate the time.

Edward Horowitz: Thank you everyone, and I just want to add my thanks to the team from Indiana who made our visit here warm and comfortable and interesting and so informative and I - you are champions of FirstNet. It is the certified network that is devoted to public safety. You are the tip of the spear, making it happen here in Indiana.

I would just ask you don't take the foot off the pedal. You might - I mean you're not going to crash on the motorway, but just don't take the foot off the pedal. Make it happen. Keep pushing it, keep pushing us with new ideas.

We will push you with ideas to try out and I just again want to thank you for everything that you've done in the opt-in process, in demonstrating how FirstNet actually will save peoples' lives, and can be a useful tool in accomplishing the missions that you've got in front of you.

I also want to thank our team for the work that has gone into crafting the roadmap, the Board's involvement in it, the PSAC's involvement in it, there's a lot of work that goes behind it. And while these charts are - tend to show a road that kind of got curves and turns in it, the reality is that it's really meant to be a living document.

There is no straight line from here to there that defines where that investment dollars are going to go to. The roadmap will evolve. There will be other turns. There will be interesting things for us to look at, technologies that we should figure out how to incorporate into the network - have AT&T incorporate into the network as their service - as they are a service provider and we will put all of the investment dollars to work.

There's not a question of that. So I appreciate the organization's stewardship on running the place with you know, under budget, if you will, and the money is going to go into the investment fund, and then again as I said will be completely put to work.

So with that, I want to thank everybody and the Board as well, the people who have organized our presence here. Karen and the team for all the prep work that you do, and Teri Takai this is your last physical Board meeting, but we have other opportunities for you to

call in and participate. So with that, may I have a motion to adjourn please?

Tip Osterthaler: I move to adjourn.

Edward Horowitz: Second?

Teri Takai: Second.

Edward Horowitz: Okay. All in favor?

Group: Aye.

Edward Horowitz: Anyone want to stay longer? Thank you. Bye, bye.

Karen Miller-Kuwana: Thank you, Operator we are adjourned.

Operator: Thank you. That concludes today's conference. Thank you for participating. You may disconnect at this time.

END