

NWX-DOC-NTIA-FIRSTNET (US)

Moderator: Jennifer Watts

December 5, 2019

7:47 am CT

Coordinator: Welcome and thank you for standing by. Today's conference call will now begin.

All lines have been placed open for the duration of today's call. Please utilize the star 6 (*6) feature to mute and unmute your phone, or you may use the mute feature on your phone.

Today's call is being recorded. If there are any objections, please disconnect. I will now turn it over to Mr. Edward Horowitz. Thank you, you may begin when ready.

Edward Horowitz: Thank you operator. Good morning everyone and welcome to South Florida for our December 2019 Board Meeting. I will especially like to welcome Karima Holmes and Matt Slinkard, our newest Board members, to their first official board session. We will have a little opportunity to hear from both of them later on in the meeting.

Today's meeting focuses on the accomplishments of 2019 by the FirstNet Authority and outlines our priorities for 2020.

Each of the Board Committees will propose updates to their charters to align their work with the priorities for 2020 and the Committees and Boards will vote to amend these Charters and Bylaws to reflect these changes.

This meeting will provide an opportunity for us to reflect on the progress that there is a need to deliver public safety as broadband network, the network that is dedicated to public safety and is being built for them.

Let's not forget that less than two (2) years ago we were finalizing state plans and we were waiting for the last states and territories to opt in or not onto the network. I remember being in the December timeframe and every day was a new adventure, and of course by the end of that time period all 56 states and territories had opted in and it was off and running.

Earlier this year I had the opportunity to join public safety officials in West Virginia to announce our new FirstNet Safe Side in Preston County - quite a rural area. This was just one of a number of new network developments announced this year.

As the network expands, adoption is also increasing. Today we are going to hear from Chief Greg Rubin of Miami-Dade Fire and Rescue, and Chief Frank Kitzerow of the Palm Beach County School District Police Department on their experiences using FirstNet. We are honored to have you here and thank you very much.

Just as we've made progress with our network oversight and deployment, we continue to do what we said we would do and deliver the FirstNet Authority Roadmap.

The roadmap was developed from public safety, industry and government and our network contractors AT&T input. This is a very collaborative effort.

The roadmap provides a view of the public safety's opinion to what the critical communications needs and technology trends for mobile broadband communications over the next five (5) years look like. It is a living document and will evolve as time progress.

This was a key milestone for 2019 because the FirstNet Authority Roadmap is really designed to guide the growth, evolution and best advancement of FirstNet. It will and it is helping to charter a path for our program's activities and investment strategies to maximize the impact of the FirstNet experience.

You will hear during the session today on each of the Committee updates the progress being made to fulfill the priorities that public safety helped to lay out in this roadmap.

Today's agenda includes the announcement of our next Chief Harlin McEwen Public Safety Broadband Communications Award recipient.

A FirstNet user spotlight highlight with Chief Rubin and Chief Kitzerow.

A Public Safety Advisory Committee (PSAC) update from the PSAC Chair, Todd Early.

A review of the FirstNet Authority Board Committee accomplishments in 2019.

The identification of our priorities for 2020 as well as the Board Committee Charter Amendments that are being adopted.

A presentation of and a vote on the **Board Resolution 103** FirstNet Authority Bylaws, Committee Charter revisions.

Closing remarks from Edward Parkinson and Jeffrey Bratcher, then subsequently a vote to adjourn for the holidays.

Before we get started, I want to announce a recent addition to our leadership team, Ms. Lisa Casias. She has joined the team as Deputy CEO and comes to FirstNet Authority from the Department of Commerce (DOC) where she was Deputy Assistant Secretary of Administration within the Office of the Chief Financial Officer and Assistant Secretary of Administration.

She celebrated her 28th year in government service last week, so we are grateful for her being here.

She is not new to FirstNet. She was a Deputy CFO for DOC during the time when the work was done and approval was made for the MPSBN request for proposal in 2015 and 2016.

She has a deep understanding of our mission and our unique public/private partnership business model, and also a strong advocate for FirstNet success within the DOC.

Lisa's financial expertise will serve us well as we move forward with our investment planning and other priorities particularly as it relates to communicating those things throughout the government oversight bureaus and she also will have oversight responsibility for the Enterprise Risk Management, and will report to the *Governance Committee* on that matter.

As a start to today's meeting I would like to ask our Acting Board Secretary, Jennifer Watts, to call the roll for the board and confirm that each committee has a quorum. Madam Secretary, please call the roll.

Jennifer Watts: Thank you. Chair Edward Horowitz?

Edward Horowitz: Present.

Jennifer Watts: Sheriff Stanek?

Sheriff Stanek: Present.

Jennifer Watts: Richard Carrizzo?

Richard Carrizzo: Present.

Jennifer Watts: Welton Chase?

Welton Chase: Present.

Jennifer Watts: Neil Cox?

Neil Cox: Present.

Jennifer Watts: Brian Crawford?

Brian Crawford: Present.

Jennifer Watts: Vincent Delaurentis?

Vincent Delaurentis: Present.

Jennifer Watts: Billy Hewes?

Billy Hewes: Present.

Jennifer Watts: Karima Holmes?

Karima Holmes: Present.

Jennifer Watts: Tip Osterthaler?

Tip Osterthaler: Present.

Jennifer Watts: Paul Patrick?

Paul Patrick: Present.

Jennifer Watts: Christopher Pichota? Matt Slinkard?

Matt Slinkard: Present.

Jennifer Watts: David Zolet?

David Zolet: Present.

Jennifer Watts: Mr. Chair, we do have a quorum for the board as well as for all four (4) committees.

Edward Horowitz: Thank you Jennifer. Each member of the committee has before them...

((Crosstalk))

Edward Horowitz: I have an administrative - after the roll call we have to adjust the report on Conflict of Interest. Jennifer?

Jennifer Watts: Prior to participating in the FirstNet Authority Board and combined Committee today, the Board members have reviewed the agenda as well as the Conflict of Interest guidance provided by the Ethics Law and Program Division of the Department of Commerce, Office of General Counsel regarding the Conflict of Interest standards that apply to the board members.

All board members have responded prior to today's meeting that they do not have a conflict and will not need to recuse themselves in participation in any portion of this meeting.

Thank you.

Edward Horowitz: Thank you, and thank you to everyone to making sure that you are able to participate in all aspects of these meetings. Each member of the board has before him or her the minutes of our September meetings. Are there any additions or corrections to those minutes at this time?

Hearing none I will take a motion that we accept these minutes.

Crawford: Motion moved.

Richard Stanek: Second.

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

Group: Aye.

Edward Horowitz: Oppose say nay. Hearing none no extension so I take it. The September meeting minutes are accepted. Madam Secretary, please make the minutes available to the public following this meeting.

The next item on our agenda is giving out the Chief Harlin McEwen Public Safety Broadband Communications Award. We are honored today to announce the 2019 awardee recipient. The award as you recall was established in 2017 to recognize the spirit of service, commitment and dedication that is a proud tradition among public safety.

It was created in honor of Chief Harlin R. McEwen for his extraordinary expertise, experience and leadership as the founding *Public Safety Advisory Committee* Chair.

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

It's with great pleasure that I announce this year's Chief Harlin R. McEwen Public Safety Broadband Communications Award Recipient, Sheriff Neil Miller, from Buffalo County, Nebraska.

Sheriff Miller's commitment to public safety and his community are evident in his career over the past 40 plus years as a dedicated public safety officer. He is born and raised in Nebraska. He started in law enforcement at age 19 as a Village Marshall in Clarks, Nebraska.

I read somewhere that in order to train up and go onto the Police Academy and firing range that he needed to be 21 and he was only 19. He had to call

somebody up when he went to the gun store to buy a gun and get his bullets so that someone could actually make the purchase on his behalf.

I discussed this with him yesterday and said, “Well, why didn’t you call your dad in?” He said, “Well, I called the Mayor and the Mayor came down and took care of this for me.”

And that’s I think, you know, a pragmatic approach to pursuing a career that you ultimately fell in love with and still are today.

He has some strong principles. One of them is related to money, and I’m going to pull a quote from an article that says, “If the taxpayers are paying for it, he is going to make sure that things in his department cruisers, equipment and a new jail are taken care of well. I don’t think I have to - I think I have to lead by example and that’s what the public expects of us and I don’t want to disappoint the public.”.

Second, he has a good understanding of technology and using it where it is a strategic opportunity and not because it’s assigning new object. His view there is, technology is great, as long as it does something for you. If you can implement technology to save on personnel cost or improve public safety, then I think it’s great.

That’s the essence of what his approach has been in Nebraska as it relates to FirstNet, and I understand that he has done some very creative things and has on the drawing board some great things to do with FirstNet in the end.

I’m delighted he is a strong proponent of mobile data access for officers and help launch E-911 and text 911 in Buffalo County. He has served numerous times as President of Nebraska APCO/NENO Associations.

Has been instrumental in bringing FirstNet to Nebraska as Chair, co-chair and an active member of the Nebraska Broadband Working Group since its inception. Sheriff Miller, we are very honored to have you and your wife here with us today.

Thank you for your dedication of your life's work to protecting others and to driving innovation to keep communities safe.

Congratulations. This is a well-deserved award.

At this point I suggest we go stage left where I'm able to hand you your plaque. They are going to take some photographs of you and your family and some other people up here on with the board. Then I'm going to ask you to say some words please.

Sheriff, perhaps you might want to say a few things. Don't take more than 20 or 30 minutes please.

Neil Miller: I can assure you that I will not. Good morning. I want to take this opportunity to thank you very much, the Board for everything you do for this award. I'm humbled and, very honored to be able to receive this award.

I wanted to make sure I mention that Lisa Dickson and Kyle Richardson are the face of FirstNet for Nebraska and they spend a lot of time coming out there. I want to thank them for their efforts and everything that they do FirstNet for Nebraska. You are blessed to have them. They are wonderful people.

Harlin McEwen, you know, I remember going to IECF and NSA and every time we went Harlin was there leading the charge for public safety broadband and he was - he would tell us in a very firm way that we needed to support this and this was being built for us. Harlin was always the one that made sure that we understood the reason that FirstNet - now FirstNet was going to be coming to us and that we needed to be very involved.

I really want to thank Harlin for everything that he did because he started us down this road. It's very important that we remember him for all that - he was just tireless in his efforts to promote this.

Yesterday's meeting - sitting on at the board meeting and listening to the discussion with the floor and the group, you know, that's a familiar discussion because Nebraska had some similar ones.

One of the things that I was very pleased at the board meeting yesterday was listening to the passion that Neil Cox had for what you were all trying to do.

It may not be there yet but it's coming and we are early into a five (5) year build and I think we have got to keep that mind on the public safety side. We're very early into this. This is something that we are going to use every single day and we are very lucky to have it and I feel we have a duty and obligation to embrace it.

It's not quite there yet and I get that. It's not there yet in Nebraska either. I can tell you that the East end of the state was the only AT&T curve region the whole state. I get emails every day of new sites coming up in Nebraska (Band 14 sites), and we've been given some great spectrum that works well for public safety.

This group, you are kind of our guardians for FirstNet. You are the ones that make FirstNet different from the other carriers because all the other carriers want a triangular business. They all tell us the things they are going to do and they are doing those things because FirstNet forced their hand.

I was at this meeting where there was this discussion that we - Priority would never and Branch would never come to law enforcement because we were just another customer. That's all changed. It's changed because of everything that's happened with your board.

So I wanted to say thank you. I want to let you know that I'm very proud to be a part of this and Neil Cox and other board members keep up the good work because I appreciate that true passion -- its what's going to make the deputies that work for me safer doing their job. Thank you.

Edward Horowitz: Thank you Sheriff. What Sheriff Miller is referring to is a briefing session that we had yesterday and a presentation from Law Enforcement and public safety in the Miami-Dade, Broward County area. It was during that that it truly reinforced this to the fact that coverage is critically important and that when the coverage is there it's almost a duty and obligation for first responder to be on the FirstNet network because it is being built for first responders.

We will have niches and functions associated with - that are unique to Band 14 and to FirstNet. It's through that enthusiasm as you will hear from Neil Cox later that the entire board shares that enthusiasm, the entire organization shares that enthusiasm, the DOC shares that enthusiasm because we understand the need to provide solid communication, devoted and energized on behalf of public safety for now.

As we follow this roadmap going forward that we have an investment strategy that goes towards making sure that the network is fresh and refreshed.

Sheriff Miller, on behalf of the FirstNet Authority and this board and our entire organization, thank you for your service to the public safety. Thank you for committing to improving broadband communications in Nebraska and you will be a reference site for us as we go to the rest of the country. Thank you.

Edward Horowitz: Now it's my pleasure to introduce representatives from two (2) public safety agencies to share with us their experience using the FirstNet network. I don't know (Dave) has - okay. We had on the list to attend is Chief Greg Rubin who is with us. He is from Miami-Dade Fire Rescue and Chief Frank Kitzerow of Palm Beach County School District Police Department.

It sounds to me like Frank is delayed in traffic or something going on at the office. That's not a good thing. Not a good thing because his area of jurisdiction is this are schools - 187 schools in the district.

This gives us an opportunity to let Chief Rubin take twice as long.

I want to indicate that Chief Rubin is one of our newest members to PSAC. Next week he is going to join Todd Early and the team out in their in-person meeting. Take it away.

Greg Rubin: Thank you very much. Good morning everyone. As its been stated I'm the Communications Chief for Miami-Dade Fire Rescue and I also serve as the International Association of Fire Chiefs Communications Committee Chair.

As it was stated - mentioned a few minutes ago by Sheriff Miller, I want to echo that sentiment that the Board hosted the - a public safety roundtable yesterday. There was law enforcement, fire and EMS disciplines that were present.

As stated, it was a very passionate discussion at times and I felt that it provided both sides of the table to get an understanding of where our current state was and the discussion of what the priorities are.

I look forward to continuing that energetic discussion and hope that moving forward that the board takes an opportunity when appropriate to reach out to local providers and solicit that information -- because I think everyone present would agree that that was a very beneficial discussion.

Just to tell you a little bit about Miami-Dade Fire Rescue and to tell you how we are handling communications today and what we look forward to tomorrow.

Miami-Dade Fire Rescue operates a dedicated fire rescue dispatch center that handles over ¼ million incidents annually spread over 2,000 square miles. With just under 2,100 firefighters responding with over 150 frontline units from 70 fire stations that includes three (3) airports and the Port of Miami.

We have a dedicated hazmat and technical rescue teams. We have a 200-person Urban Search and Rescue Team using four (4) helicopters and marine services that include fire boats that cover 84 miles of ocean side. Coastline that includes 810 miles of intercoastal water ways and navigatable channels.

The communication devices that we use primarily today are like most public safety are LMR but we transitioned into and use a significant amount of LTE including FirstNet.

We operate the largest municipal Fire Rescue LMR system in the country with over 50 sites and our design build is a significant - is designed specifically for strong and building penetration.

All frontline units have Sierra wireless devices that are utilized for GPS, LTE and Wi-Fi. All of our frontend - those frontline units have mobile computer terminals such as like a Panasonic Toughbook which is primarily used for CAD connectivity as we dispatch by closest unit AVL.

All of our units also carry a Panasonic tablet, in this case for EMS patient care reporting. That tablet itself also has a separate LTE card in it, which is FirstNet, and we can connect locally to the track when necessary.

We are currently working with FirstNet and AT&T for testing Sonim devices for push-to-talk capabilities at the Super Bowl. The Super Bowl is coming up in South Florida, Miami-Dade County on February 2, 2020.

Our experience in the past with FirstNet decides our standard every day that we utilize. I can tell you that some significant highlights come from our Urban Search and Rescue Team.

Our Urban Search and Rescue Team has had multiple incidents over the past 18 months that we have responded to where actually in some cases the FirstNet deployables were onsite before our team arrived, which is very impressive. Aiding our guys and gals to a disaster is some feet, and having that connectivity stood up when we arrive or near when we arrive has been

significant for our folks not only from an operational perspective but a personal perspective for our people.

As stated a minute ago, we are working with FirstNet and AT&T on the Super Bowl. We in addition to our LMR - our radio system that we will be using all of our teams will be carrying push-to-talk devices during the event too so we can use them concurrently.

What came out of yesterday's discussion also is that public safety realizes that the path for FirstNet as Sheriff Miller alluded to a second ago is not immediate. It's more of a marathon than a sprint, and we look forward to the broadband evolution that's in front of us.

It's changed as recently as in the past 24 months since this has gotten started and we look forward to it.

Thank you very much.

Edward Horowitz: Thank you Chief. I'm going to open up the floor. Are you willing to take questions from the floor? Okay, Dave or Rich?

Richard Carrizzo: No. I just wanted to compliment Chief Rubin and you can see why the International Fire Chiefs have put Chief Rubin as the Chair of the Communications Committee which is one of our largest committees and very important to us and brings so much to the FirstNet board and looking forward to him being in the PSAC finally. You can see his passion not just for the fire service but for public safety, so thank you very much.

Greg Rubin: Thank you. I appreciate it.

Edward Horowitz: One of the things that were discussed yesterday were the development of the tough devices or rugged devices and the requirements that are somewhat unique between the services but yet really the result has to be the same which is absolute communications when you need it and how you need it. I'm wondering if you could take a moment to talk about kind of the ruggedizing criteria that you mentioned yesterday which is not far down.

Greg Rubin: Absolutely. What we have learned over time is that a radio LMR device as we use it today, the end goal is for the person on the other side to be able to hear the communications part, but how it gets there and the device itself is another story.

Police officers - law enforcement typically, want a smaller device, because they wear it on with a lot of other equipment on a belt which needs to be streamlined, and its need to have a lot of different functionality.

Whereas firefighters need ruggedized devices that have larger knobs, larger buttons, larger screens. We are typically in hazardous environments that affect our vision and our hearing. Having the different devices designed for what we need is very important.

A radio isn't necessarily a radio, or a communications device isn't necessarily a communications device that is acceptable for both police and fire.

One of the discussions that was mentioned yesterday regarding operational need was how we use them differently. Law enforcement, at least in South Florida typically moves their discussion to an open environment, if possible outside, of that type of thing.

Whereas fire typically handles insider structure and in building penetration is very, very important to us. Not to suggest it's not important for law enforcement but the majority of our times, a lot of our times in an urban environment we are working indoors.

A system designed to communicate for the fire service must be able to penetrate inside a building to the point where if the radio, in this case a communications device is attached to the firefighter let's say on their chest and they are lying face down with an air pack attached to them and inside a building. It needs to have the communications, the capability, the network behind it to reach back to the incident commander, the dispatch so to call for help or whatever is necessary. From the fire service perspective in an urban environment in-building communication is extremely critical.

Edward Horowitz: And ruggedized devices.

Greg Rubin: And ruggedized devices too. Absolutely.

Neil Cox: I would like to make a comment. First of all, thank you for yesterday. It was really educational to me. I think the whole members from my *Technology Committee* got a lot out of it yesterday. We really appreciate that. What we are doing and things that we look at as to what you told us yesterday have a whole new set of engineering guidelines that will be doing for RF and RF building deployments when we go to 5G.

This is very important information for us because in the old realm of 1 through 4G it's been blasted into the building with interference and speed and latency that we are looking at with 5G. A lot of the RF architecture, RF engineering is to keep the outside RF out and develop a whole new network inside the building.

These are the techniques that we look at in part of the *Technology Committee* to say when we look at these forward looking architectures to solve the very problems that you talk about yesterday.

I want to give you assurance that we at FirstNet, as we evolve this network, we will be deploying these types of innovative RF mechanisms that we learn as we go into the next generation.

Again, yesterday was very important for me to listen. I got a lot out of the different types of devices. I do appreciate the whole group yesterday coming in. It's good for us to hear and how you use it because it enables us to then go back as we go into the standards arena and as we work with our partner on RF architectures on how we are going to deploy this next generation -- because part of this is keeping this network on the leading edge, because what you will see with 5G will be unbelievable.

Jeff, I thought maybe you might want to comment on the process of getting the devices ruggedized and how we are working with AT&T and with PSCR looking at the future -- and it's really about 4G deployment first and then in-building penetration and making sure the devices meet the needs of the customer.

Jeffrey Bratcher: Absolutely, thanks again Chief Rubin for the discussion yesterday. It was fantastic, and I think you have reaffirmed as we were developing the RFP and the objectives that public safety told us match exactly what you said yesterday. There is no one-size-fits-all for all disciplines in public safety because there is such a broad array of use cases for that, but what we are happy with and very proud of is driving that Band 14 Spectrum, the public

safety spectrum, into a broad array of devices that are now over 100 plus, you know, listed through the NIST process for FirstNet.

We are also working closely to your point on ruggedized devices. We did have some new entrance into this field that have some ruggedized devices. We know there are more coming, so that's in my opinion a key challenge that we will continue to face especially the fire service and a few others that need those type of devices.

The PSER program at NIST is also providing RND funding to companies in this hardening area and we look forward to seeing the outcomes of their push for vendors that may have not thought about public safety as a key component of their portfolio, but with the power of FirstNet and what we are able to do with consolidating this as a nationwide platform, we are seeing new entrance to that space all the time.

Thanks again for your comments and we take those to heart. Thank you.

Edward Horowitz: Thank you and I look forward to working with you on the PSAC as well. I will turn it over to Todd Early, who is the PSAC Chairman for an update on what's going on at the PSAC.

Todd Early: Mr. Chair, board members, good morning. I'm Todd Early Chairman of the *Public Safety Advisory Committee*. It's an honor to serve as the Chair of the *Public Safety Advisory Committee* and I appreciate the opportunity to give you a very brief update on the great work that the *Public Safety Advisory Committee* and the Tribal Working Group (TWG) have been doing over the last several months.

First I would like to update you on then TWG. Since our last meeting the TWG held an in-person meeting in Anchorage, Alaska on September 10 -11, 2019. During that meeting we received updates from the FirstNet Authority's product team.

This group discussed use cases from delegates which was extremely important and gave us the opportunity to hear of the true need of FirstNet in tribal land as well as proposed updates to the FirstNet Authority Tribal Consultation Policy and really develop the framework for tribal specific preparing for public safety broadband documents which was really important.

There was a lot of discussion centered around the roadmap that was just released by the FirstNet Authority in the six (6) domains within that roadmap.

This group is going to resume their monthly teleconference schedule in January 2020 and will hold another in-person meeting in February 2020.

I would like to update you on some of the work that full body of the *Public Safety Advisory Committee* has been performing.

As you know during 2019 we continued our webinar series that begun in 2018. We shifted to a bi-monthly cadence to help us incorporate the two (2) yearly in-person meeting that we had.

These webinars are really important and I appreciate the board's participation in those as well when you can. It really provides a great avenue for a stakeholder engagement and an opportunity for us to provide feedback into the work that the FirstNet Authority do, and the FirstNet AT&T, really give information and findings back from our operational and technical best practices.

This year during those webinars the PSAC discussed mission critical video. A lot of discussion centered around the FirstNet Authority roadmap. We appreciate the opportunity to provide input into that roadmap on where these public safety first responders and associations or what they are dealing with, and what they value and feel is extremely important in that.

Had discussions centered around standards. A lot of discussion around telehealth that I will discuss here in a minute, as well as the Disaster Response and Deployable Program.

The *Public Safety Advisory Committee* as I discussed earlier meets two (2) times each year in person. During those meetings we hear updates from the FirstNet Authority and AT&T leadership. We held a meeting in June 2019 in Bedminster, New Jersey. During that meeting we got to get updates from the Authority from FirstNet AT&T.

We also got to tour the Global Network Operation Center in Bedminster. If you have never been at that network operation center, it's a great place to go and really see the true value and the focus on secureness network that's being built for public safety. It's something to really see and it was really a great meeting.

We also during that meeting had a lot of breakout sessions really centered around the roadmap and validating the input that David Buchanan and the PSA team have been out there working extremely hard to seek that input from public safety and validate that before it went to the board for vote and release. As you know it was just released.

New to the *Public Safety Advisory Committee* this year is we formulated what we call Strike Teams and those Strike Teams a very valuable as it allows us the chance to pool a group of subject matter experts together -- really focusing on a task and have a quick turnaround and great input from a small number of PSAC members to really validate or focus on the need. Whether it comes from the FirstNet CTO team, whether it comes from AT&T, FirstNet, and turn those around.

A couple of the Strike Team experiences that we had just here recently we formulated a group in May went in the FirstNet Experience Center in Boulder, Colorado its being stood up. We had 15 members of the PSAC there for that and really appreciated the opportunity but it allowed us to really understand what is being built at the Experience Center in Boulder.

We appreciated the opportunity to provide the input and feedback into that experience program to hear from the members on what they thought was important from a technical and an operational standpoint into that experience center and it was really good.

We also formulated a Strike Team on telehealth later this summer. We had input from the FirstNet Authority's subject matter experts and 5 PSAC members on this team. I want to thank my colleague John Olson from the Executive Committee for leading this. They held several teleconference meetings and developed a paramedic chief language to examine telehealth in the context of the emergency triage, treat and transport initiative as introduced by the centers for Medicare and Medicaid services.

This work and the work that was done resulted in the development of a sleek sheet that was used at the EMS World Expo 2019 in New Orleans, and most recently has been posted on the [.gov](#) blog website. A lot of great information

into how this network is really going to advance telehealth in the years to come and the value that it brings. We are excited about the work that that group has done as well and appreciate all their hard work on that.

Lastly, we are holding our next in person *Public Safety Advisory Committee* meeting in Austin, Texas next week. I look forward to many of you here in the room being in Austin with us and look forward to our new members being there. Chief Rubin, glad to have you as the newest member of the PSAC on there as well.

During this meeting we are going to hear updates from FirstNet Authority leadership, also from the Chief Technology Office and PSA teams on the great work that they are doing and what's being done ahead in the year and what that looks like.

We are going to have AT&T FirstNet leadership there with us to discuss their roadmap and what they are doing in the TWG activities.

Then we will be having some discussion on the future of the webinar series and the Strike Teams that we are going to formulate for the upcoming year.

Then there will be some discussion also centered around the roadmap, so I appreciate the opportunity to provide the update and I will answer any questions that you may have.

Edward Horowitz: Thank you Todd. Any comments or questions? Paul?

Paul Patrick: Yes. I just want to take a moment to congratulate Todd for his great leadership of the PSAC. As you know I was the Acting Chair and I was heavily involved in that before I was appointed to the board. Todd has taken

it and just moved in directions much further and grander than I had ever even anticipated. Thanks Todd for doing that and to your team.

Todd Early: Thank you.

Edward Horowitz: Richard?

Richard Carrizzo: Todd, I know that you mentioned Chief Rubin. Do you have a couple other additions to PSAC new members, who are they again?

Todd Early: ICP has just proposed a delegate that has been submitted for Chair Horowitz's consideration as well. I believe there is one other but I don't recall.

Edward Horowitz: I would like to echo Paul's comments with Todd's chairmanship, and also the rest of the Executive Committee, other PSAC and their dedication and devotion but also to the whole PSAC for their activity.

lastly, to the board itself, because the board gets a lot. If you have the opportunity to join the webinars, you will learn something. If you have an opportunity to go to the in person meeting, you will learn something, as well as be able to contribute to their direction.

I would like to continue to encourage the board to do so. The board has been quite active in its engagement. I think it goes above and beyond, kind of a normal boards, to show up to four (4) meetings a year, is not what this board is about. This board is about advancing a mission and in order to advance that mission you have got to get close to the subject matter experts and the PSAC is a terrific way to do that. So thank you Todd.

Edward Parkinson: Mr. Chair, if I may.

Edward Horowitz: Yes, you can.

Edward Parkinson: Jennifer, if you don't mind going back one slide please. One of the things that makes the PSAC so important it's the strategic direction that the PSAC provides to FirstNet Authority in the direction, the focus and the prioritization of the respective range that the roadmap has provided us.

If you look at the Strike Team on the right hand side of telehealth, you recall we signed a Memorandum of Understanding with the University of Mississippi to focus in on telehealth - rural telemedicine. It's not only those strategic partnerships that we plan to make with others around the country, but it's the expertise that the PSAC does provide the authority in understanding where are the areas that we should be focusing on and how do we get there.

I think that's just the clearest indication of the close working relationship that the Authority has not only with the PSAC in particular, but with public safety. its public safety that is driving the strategic direction of the Authority and that's something that we certainly Jeffrey Bratcher and I share in terms of our vision of where we need to go from the management perspective.

I just felt that would be an important piece to rise. Thank you.

Edward Horowitz: Thanks Edward. That's - you can't say it enough times. Seven (7) times is what I believe the cadence needs to be to really get a message understood and heard. That's number four (4).

Edward Parkinson: Yes.

Edward Horowitz: Three (3) more to go. I'm going to turn over to our discussions to the accomplishments for 2019. As Chairman of the *Governance and Personnel Committee*, I'm pleased to introduce our two (2) newest members to the Board, Ms. Karima Holmes and Chief Matt Slinkard.

Ms. Holmes is the Director of the Office of Unified Communications in Washington D.C., and takes the place of former Board member, Tera Tekai.

Chief Matt Slinkard is the Executive Assistant Chief of Police for the Houston Police Department, and will complete the term of the former Board member, Commissioner Richard Ross.

Karima, would you care to say a few words?

Karima Holmes: Sure. First it's an absolute honor to be here. I'm really excited as a new Board member and just found myself in this - this meaningful mission. In the short time that I have been on the board I'm really excited because as I expected the partnership with the Board, the Authority and AT&T is priceless to the public safety community and the communication needs and stability of a broadband network that we have longed for.

I just want to say that the board and the Authority, you have a right to be excited and celebrate the accomplishments that have come to fruition, and I'm really excited to be a part of the dynamic accomplishment that I know is coming. Thank you.

Edward Horowitz: Thank you Karima and welcome. We look forward to working with you, but not only working with you, but sucking everything we can out of your brain so that we have a good understanding of what we need to do in an emergency communications perspective.

Chief Slinkard, would you care to say a few words?

Matt Slinkard: Yes. Thank you Mr. Chair and good morning everyone. I want to first thank everybody for the warm welcome of the board members. The communication this far has been outstanding. It's been great. Even better than I expected and I think it's a testament to all the work that you've put in thus far.

Very excited to be a part of this journey, you know, for somebody that's dedicated their entire professional life to law enforcement and public service, going on 26 years now in law enforcement. This is an amazing time for public safety.

As a new board member I hope you can feel the energy from myself and Karima and how excited we have been. She and I have already talked several times about what's happening for public safety. For the first time that any of us can remember in our professional lives public safety is not an afterthought when it comes to the technology and the communication that we need.

Ultimately, as I continue to engage and serve in the *Technology Committee* and the *Advocacy Committee* which I'm excited about, I hope to bring some value to that.

At the end of the day everything that we are building is for public safety but ultimately it's for public safety so at the end of the day we can provide better service to the citizens of this great nation. That's the true end user of this effort.

The true end user is all of the citizens that we serve and protect every single day that will benefit from what's happening with this network for public safety.

Thank you for the opportunity. I appreciate it.

Edward Horowitz: Thank you and welcome. Your experience as a Major City Chief is going to be really critical, and of course, you Chair the Technology Committee of Major City Chiefs, so we are going to take full advantage of that. Don't worry, we are not a shy organization.

With the addition of Ms. Holmes and Chief Slinkard to the board, as well as Vincent Delaurentis, the new Federal Board Member designee from the Department of Homeland Security. We have updated the membership of each of our Board Committees.

I want to note that Dana Wade left her position at OMB and we are waiting for a new federal Board member to be designated by OMB. I believe the person has been selected but has to go through a process in order to be officially designated.

On some of the Committee assignments, Tip Osterthaler will serve on the *Governance and Personnel Committee* in addition to his role as Chairman of *Finance Committee*.

Ms. Holmes and Chief Slinkard will both join Sheriff Stanek's *Public Safety Advocacy Committee*, and Vincent Delaurentis and Chief Slindard will join the *Technology Committee*.

I would now like to turn the meeting over to Jeffrey Bratcher to highlight the FirstNet Authority's priorities and accomplishments for 2019.

Jeffrey Bratcher: Great. Thank you Mr. Chairman and thank you board for allowing us to provide some updates today. Edward Parkinson and I are going to switch off on this presentation. I'm going to have Edward start with the priorities looking back at what we said we were going to do in 2019.

Edward Parkinson: Thanks Jeff. It's more than just the priorities, it's the accomplishments that I think the board and the FirstNet Authority were able to put forward and achieve in 2019.

The goals when you look at the entire ecosystem, public safety industry, the impact we would have on the community were immense, and strategically aligning to these five (5) core areas was very important.

Strengthening the FirstNet experience by providing oversight over our partner while at the same time working with them to ensure that public safety received the best service possible from the network was a key accomplishment that we were looking to try and archive in 2019.

Parallel with that is our engagement with public safety that was led by David Buchanan in the *Public Safety Advocacy Committee*. David is going to go into a little bit more detail later on. The thousands of events that were held, the tens of thousands of public safety individuals who are engaged with the FirstNet Authority, is just a small snapshot into the collective work that the Authority tried to active in 2019.

It's no small feat because again as my earlier comment regarding telemedicine and telehealth it is public safety that drove the development of the roadmap which led to the board initiating the strategic investments that we kick started three (3) months ago.

This industry engagement was a key component because we for the first time as you heard Chief Slinkard talk about, felt public safety is now the forefront of technology.

By bringing together the ingenuity of the American marketplace and then American industry, and combining that with the need for public safety, it's clear that the public safety broadband market has grown immensely in 2019.

Showing the industry that in public safety there is a valuable market there, so they can make strategic investments into this place while at the same time showing public safety that we now are pushing industry to provide products and services that will be able to better serve public safety -- is a really important part of the dynamic relationship we are trying to achieve not only between public safety, but in the industry as well.

As I mentioned before that engagement with public safety which led to the development of the roadmap and kick started our strategic investment process that we initiated back in September 2019. These investments are the first of many that will come through FirstNet in future, but it was important to start this process so that we could better understand how FirstNet Authority would engage not only with public safety, but also with industry to identify specific investments that made the most sense at that particular time, and enterprise support.

We can't do this without being highly strategic in looking at the fairly wide aperture of how FirstNet can engage not only internally with the FirstNet Authority but with the DOC and with our partners across the federal, state, local and tribal governments in showing that we can align our needs and objectives to those that are out there in the field and knowing where our strategic partners are is highly, highly important.

By focusing on these five core areas in 2019 by releasing the roadmap it gives a clear indication of where the Authority is looking to go not only over the course of the last 12 months but what we hope to achieve in 2020. We will touch on that a little bit later.

Jeffrey Bratcher: Thank you for that Edward. I will call your attention to the logos you see at the top. Those will follow through on the slides that we are going to go through and touch on some of these five (5) areas and what we have been doing over the last year.

Next slide please.

First, I would like to start off with an announcement in a press release that AT&T made earlier this week. We've updated these numbers to reflect the milestones they have now hit within this network. Again we signed the contract and awarded the initial phase of this contract in March 2017 and here we are two and half (2 ½) years later or a little more than that.

They have announced 1 million connections now on the FirstNet platform. Over 10,000 public safety agencies have now subscribed and are now using the FirstNet network.

As we talked about with Chief Rubin this device ecosystem continues to grow. We have over 100 FirstNet ready devices now available. You can find those on the public NIST list that is made available on those devices and how we are working with AT&T and the industry to ensure those devices meet the needs and more importantly meet the Band 14 Spectrum needs.

675 plus markets now have the public safety spectrum Band 14 that they fought over 20 years ago and I was chuckling earlier when Chief Harlin McEwen was mentioned. He led that charge and I think he would be very pleased to know we are in over 675 markets now. That is over 92% of the total markets that the FCC defines. There is a total of 734 markets out there for the wireless industry for that spectrum and that's how that's measured.

AT&T has done a lot of testing with I believe UCLA is the partner. Testing this network, showing how this is faster with the priority in branching capabilities for those FirstNet users on this network. They have reached the milestones of 75% on that Band 14 coverage completion and are pushing hard. I know they are pushing their vendors to get this spectrum out into the network and deploy it across the country. We're really excited and pleased with that progress. They are approximately six (6) to nine (9) months ahead of planned schedule that we did sign on March 2018 for that radio access network deployment.

Over 100 plus applications in our FirstNet application catalogue. The dedicated deployables, I think there was quite a bit of press yesterday and the day before, very nice video on the new FirstNet One blimp that they have procured.

AT&T has invested into this network to make it available for first responders. It's a fantastic platform. We look forward to seeing how that is used. That's in addition to the three flying cows that they have added to the servers and then the 72 satellite call based deployables that we procured through our contract. So very excited with that unique differentiated feature and capability for first responders on this network.

Then over 450 plus deployable request on how they are actually leveraging those satellite call based platforms available now for the FirstNet subscribers.

We are very tremendously happy with that progress.

I will turn it to - also what you see here we hosted our technology committee as the Chairman Cox mentioned earlier. We showed them some of our initial undertakings in our experience center. Looking into their input on how we design that and it's not just about designing something in the Boulder, Colorado area.

That's where all our tests and all our network equipment and we have the live network there in our laboratory in this experience center, but also want to bring that to the field because not everyone - Well, I would like to fly everyone to Boulder, but not going to be able to have everyone come out to Boulder to see what's there. So we are also working on how we expand that experience into the field with all of our field staff across the country.

I mentioned the devices in the discussion with Chief Rubin and the broad array of different devices now that are available that include Band 14 - whether it's a hotspot, an in-vehicle router, laptops that now have embedded FirstNet capabilities, the smartphones, some of the ruggedized hand-helds that are now on the market, and then the tablets that are now all have incorporated LTE and specifically that Band 14 Spectrum for public safety communications.

On the top left around this slide is the applications catalogue. We are very happy with the developer community. They are now focused in the public safety market as well and some of the applications that may not have - in their mind did not think of a public safety leverage or use of it, and now they are

realizing, this is a market. We should address this market and going through their certification process and having their application and source code tested for security vulnerabilities is making that better for public safety.

Next slide please.

I'm going to turn it over to David Buchanan who is going to touch on our *Public Safety Advocacy (PSA)* accomplishments.

David Buchanan: Thanks Jeff and thank you Chair Horowitz and the board for the opportunity to brief you today. I want to say I think we had a terrific year and met our objectives for 2019 in engaging public safety, using those engagements to capture their feedback and sentiment about the network to help us improve and enhance the network through the roadmap into our future investments. I'm pleased with what we accomplished.

Our team was able to and commit through leadership of the *PSA Committee* and our team engaged in all 56 states and territories, over 1100 different engagement with 33,000 public safety personnel. We worked very hard to hit a diverse group of public safety agencies and individuals at all levels of government -- rural, urban, east, west, north, and south. And, think that's a really important aspect of how we go about and do this work.

We also work to capture the feedback from those meetings, so they're not just handshakes and good meetings, but using these engagements as a place to capture feedback about operational use for the network today, and, needs and requirements for the network for the future so we can best advocate for public safety and the operational deployment of this network today and tomorrow. We use those feedbacks and use this year -- -- the thousands of pieces of

feedback we got from the 1,100 engagements to inform our roadmap, which we released at the board meeting in August.

And, inform our investments -- which discussed at the board meeting in September -- to ensure that those documents and those artifacts fully reflect public safety's needs. I think that's a really key attribute that this FirstNet authority was able to accomplish this year. I'm pleased we were able to play an important part in making sure that public safety's needs for the network today and for the network tomorrow are reflected in those documents and investments as we go forward to fully operationalize this network for public safety.

On the next slide you see a number of the events that we asked our board members who sit on the *PSA Committee* to help us execute. We have a great partnership with all of you and your willingness to go on the road and help us really amplify the message and provide leadership in these different settings, whether it's Paul Patrick at a state meeting, or, Chief Carrizzo or Brian Crawford at the FRI meeting, or Sheriff Stanek at IACP and at National Sheriffs' Association. Our public safety board members have really done a yeoman's work for helping us, again, bring the message to public safety, bringing their leadership and expertise to the public safety community.

Sheriff Stanek, I don't know if you wanted to add any comments about some of the things we were able to do this year, or any of the other Committee members to make some comments about these activities.

Richard Stanek: Yes, thank you David. Mr. Chair and members, I would just say that the advocacy committee has been hard at work. I'm really impressed with the enthusiasm from the Committee members as well as the rest of the board. I mean, a number of you have stepped up to go out to engagements across this

country. It means a lot when a firefighter gets to talk to other firefighters. It means a lot when an EMS provider and a sheriff and a police officer gets to talk to their colleagues across the county.

I think that during 2019 here and moving into 2020, we will continue that roadmap that was released here at the board meeting just a few months ago is now engrained in the public safety across this country. Those pillars of that roadmap I know by heart because I've heard David go over them over and over -- at least seven (7) times, maybe 70 times, Mr. Chair.

But, that is really - you know, that is kind of where we are at. This board wanted a strategic plan, a roadmap -- something to follow, and we are following it very carefully. Again, David got a number of folks that work with him and for him, and they will continue through 2020 to get this message out. I told David when I went to the PERF and Major City Chiefs meeting back in the spring - I think we're in Miami Beach or somewhere down here in Florida -- thank you very much.

It was the first time that it really occurred to me that people weren't asking what FirstNet was anymore, who are you. But rather, they were asking, "Look, how do we sign-up? Where do we find information? How do we get technical assistance?" That was a seat change over the last five (5) or six (6) years from what FirstNet and we were doing on behalf of outreach. *PSA Committee*, and now just *Advocacy Committee* are prior to that.

I say thank you David to you and your team. Thank you, Mr. Chair, for putting the trust in this committee to be able to reach out across the country to our public safety peers. We will continue our work through 2020.

David Buchanan: Thanks, Rich. Paul, do you want to say something?

Paul Patrick: No, I just want to echo what the sheriff said. Really appreciate not only David who does a great job and also his team. It is just amazing every time we go out to present or we're at these meetings, the support that we have. Not only that we have if we're at the meeting or that we have received in advance. The biggest thing to me is that we go in very prepared, and, that's thanks to you and to your team. I really do appreciate that and find that it's very rewarding to have the people who attend come and comment on the information as board members that we've been able to present and how helpful it was to them. That's something that I think is critical for us to continue to do.

Edward Horowitz: Thanks, Paul. Before you continue on, David or Jeff. I just want to take note of the million connections and the 10,000 agencies. You know, you don't get there easily, and AT&T is ahead of schedule in the build out. I maintain that there's some really tough areas they still have to build out, so all I'm looking for them to do is be on schedule and maintain the momentum that's been built up in the awareness.

The awareness really comes from the activities of the public safety outreach because getting people together, getting them to talk, understanding the areas of opportunity and of difficulty, and what it's going to take for adoption are critical, but we do have a metric now -- a million. A million is a real metric. Ten thousand is a real metric. Yes, the opportunity may be, with extended primary may be ten (10) times that, but it is a million.

Jeffrey Bratcher: Thank you, Mr. Chairman. David, thanks again. I know Edward, as well for all the work your staff does out in the field every day. So, thank you again. I'll go to some updates and I'm going to have Mark Golaszewski -- who works in the technology team as well -- work with me on the next couple of slides to show some of the great work that we're doing collaboratively with

the Public Safety Communications Research Program within MIST. For those that don't recall, they did out of the legislation get awarded \$300 million to continue to drive future needs into this network and leverage that funding to different institutions and industry to drive that.

Most recently, I had the honor of participating in their Haptic Interface for Public Safety Challenge. The picture there on the top left, we're in full turn-out gear. We have three firefighters from the local Denver Fire Department. West Metro Fire is the facility; you see on the right. That is their training center in Denver, Colorado -- fantastic facility. This event was focused on stimulating the senses of touch and motion to provide first responders with non-verbal tactile stimuli or sensations. Simply put, for those of you that have Apple watches or smart watches, that vibration is what haptics is.

So, how could they incorporate that -- that was the challenge. This was based on public safety's needs. When PSCR set up their program they did a stakeholder conference with public safety and said, "What areas should we focus on?" And, this is one of those areas in that enhanced user interface. So, this was a challenge to leverage haptics into the person protective equipment of firefighters. Protecting in smoky buildings to help navigate. Simulated fire grounds to locate a victim and successfully rescue that person out of the building in that environment leveraging haptics. No audio, no communications. It was all based-on haptics.

So, the judges included, as I mentioned -- active firefighters, communication specialists. Myself, from the FirstNet authority. But, there was work. This was a nine (9) month lead-up to developing this challenge. I can't remember how many teams they started with, I think it was over ten (10).

Ultimately, the winning solution was Carnegie Mellon University. They developed haptic sensors that fit into the protective - the band that holds the hat on the firefighter's head, and, it was able to pulse in certain locations to give directions through the building to find the downed victim and get that victim out of the building. It was a fantastic challenge. It was an area that they -- as I mentioned earlier -- did not think, "Okay, what is the public safety application of haptics?"

A lot of that development's being done in the gaming community now, but they realized, "Oh, this challenge. We're aware. Maybe we could do something with public safety." It was a fantastic event, and we have Carnegie Mellon University as well as several others that focused and developed teams to develop this technology. I see some tremendous future thinking in using haptics. How that can not only save the lives of firefighters, but get them better situational awareness without relying on voice communications. It's something that you can feel, and, it was a great competition.

Carnegie Mellon received \$25,000 for first (1st) place, and another \$3,500 because the judges all felt that it's prototype select method criteria and most commercially promising among the developers. There was another team -- its name was Haply -- and they received \$20,000 for second (2nd) place. They actually outfitted a glove with haptics sensors and gave directions on how to get to the victim through that glove interface. Then third (3rd), but not least, was the engineering dynamics team, and they received \$15,000 for placing third.

We're very fortunate to have this partnership with PSCR leveraging what they're doing. Working with public safety directly to design these challenges and move that forward. We look to involve the board and the *Technology Committee*, as we have with all of their challenges and now their awarding

this funding going forward. I look forward to their upcoming conference in June 2020.

I'd like to turn it over to Mark. He's going to give a quick update on another collaborative effort that we've been doing and recently announced. Mark, please take it away.

Mark Golaszewski: Yes, thanks Jeffrey. In the year ahead, we're going to continue our engagement with industry, academia, and the wider public safety technology ecosystem, to understand where the market is going and to bring innovations to the forefront that are focused on public safety's needs. An example of this is an innovative new grant program -- just announced in the past month and a half -- known as the Accelerate R2 Network Challenge -- depicted here in the lower half of the slide.

This is a collaborative effort between the national Institute of Standards and Technology, U.S. Economic Development Administration, and the FirstNet Authority. This grant program is to fund the creation of a nationwide network to connect organizations and stakeholders, to address the nation's most pressing disaster response and resiliency -- or R2 -- challenges with innovated technologies.

The program defines response innovation as new solutions in the communications, technology and equipment first responders use when responding to disasters and events. Resiliency innovation is developing new ways to build, protect, and connect networks and infrastructure to help communities recover and build readiness and resilience in the face of future disasters. The target for this program is to make awards in May of 2020.

Next slide, please.

The Tech to Protect Challenge is an open innovation challenge hosted by our peers at PSCR. It's an exciting approach with a series of six (6) month codeathons as opposed to 48-hour hackathons. There are ten (10) public safety contests. Examples include, augmented reality to save trapped passengers, voice commands to virtual assistants, and tracking patient triage. FirstNet Authority staff helped to develop the contest, the rules, the evaluation criteria. In addition, staff were participating as reviewers and judges at these contests.

This challenge is still ongoing. Ten (10) in-person codeathons have already been held across the US. Plus, a virtual online competition closed on November 15, 2019. The review process has started and with the final award and competition in April of 2020. The pictures here are of first responders and developers who participated in codeathons in Seattle, San Francisco, and Los Angeles. One of the ten (10) codeathons was held in Miami last month (November 2019). The following is a short video from that event.

((START OF VIDEO RECORDING))

Austin Handle: I am a full-time police officer in the North Atlanta area in Georgia. I'm a FirstNet subscriber and I am also a developer. And, I am here at the Tech to Protect Challenge trying to develop new technology to help first responders across the country.

Greg Rubin: Miami Dade Fire and Rescue is honored to participate in the Tech to Protect. We have a team there to work as advisors. There are various scenarios including those specifically related to the fire service and Emergency Medical Services.

- Man 3: Having first responders actually on the ground with the developers was important. Because it allowed the developers to put on the first responder gear, see the equipment that they use, actually lay their hands on it, and, understand how their solutions -- the solutions that their creating, that is -- might actually be used by first responders.
- Man 4: The Miami Dade Police Department is going to be an active participant in the Tech to Protect Challenge. I'm going to be there, and my staff is going to be there to serve as technical advisors for the participants. I'm going to be serving in the role of a reviewer. That is a critical piece because that is going to feed into the ultimate judging and whether or not they win the Tech to Protect Challenge.
- Man 5: Here at the Tech to Protect Challenge, I am developing something to enter Contest Number 6 -- which is a hands-free voice assistance for first responders. A better way to do the things that we already do without eliminating a dispatch center. And, to make it so that way we can push forward into the digital frontier that law enforcement is just about to enter into.
- Man 6: With any of these types of challenges, advanced technology is very important for public safety because it enhances our capabilities. You know, some of the threads that they're going to be looking at addressing in the Tech to Protect Challenge deal with location identification. You know, triaging of patients. These are huge things for us to be able to respond to a multi-story building and to be able to know what floor that person's on is a humongous thing. Being able to adequately triage patients for the Fire Department is a huge thing because then they can better address their issue that they're dealing with and let the hospitals and whoever they're transporting know, you know, what the situations are. These are life-saving technologies.

((END OF VIDEO RECORDING))

Mark Golaszewski: This has been an important year with tremendous growth and development of the First network. The initial network investments and new technologies being brought to the wireless marketplace. With all this progress and change, the *Technology Committee* has been an invaluable resource for management and staff on a variety of key topics and technologies. With that, I'm pleased to hand it over to Technology Chair, Neil Cox.

Neil Cox: Thank you, Mark. First thing I'd like to do is to thank all the members of the *Technology Committee* for their efforts. Through 2019, I thought we had a very productive year. I'd like to highlight a few things that come to mind. Just to refresh everybody, the *Technology Committee* not only looks at the day-to-day operation, how the network is performing, where the coverage issues are, where the interference issues are, and, we try to stay abreast of that and work with management for solutions.

We also look out ahead. We look out - we're trying to spend more time - now that we have a network up and working - is to look out ahead at where this technology and where this network needs to evolve to. And, one of the things I'll talk about first is that one of the -- you could almost say the forefathers of this network now. One of the wisest decisions that we made was to have our own dedicated core. I can't stress the importance that this network stands on its own. This is a dedicated network for public safety with a dedicated core, and that core is very robust. It's ring is self-healing. If there's ever a fiber cut or whatever, it just re-routes them and it takes care of itself.

Then, we're starting to see - you've heard about how many applications that we now have, and it was kind of interesting because we had a technology

meeting prior to yesterday's round session. We were talking in that meeting of how important it was to know visually which organizations have already signed up for FirstNet. Then we went to the round station and then the chief brought up that not only would they like to know that, but they'd like to know what applications those organizations are using. Which is pretty - it's amazing that we think about how personnel move between organizations. Now we know, not only do they have FirstNet, but know what applications they have on their devices so we can maybe get our application before our personnel ends up there, or theirs ends up here, which is very refreshing to know that the First Responders are thinking like that. That's very, very important to know.

Devices. We get to see things in the laboratory that Jeffrey brings in that are under NDA that we can't talk about, but, I tell you the next generation of push-to-talk devices on Band 14 LTE FirstNet are phenomenal. And, they - I don't know if it'll go all the way to what public safety wants to replace LMR, but it's very close. When we saw it and we held it in our hands and looked at it, it's amazing what this next generation of devices will do.

Jeffrey talked about the innovation lab and the FirstNet Experience Program. What we have demonstrated with this FirstNet network and the lab and through the *Technology Committee* -- if I would've had this type of performance with a network that I was selling to the public against competitors, I'd have a billboard every 50 feet advertising how phenomenal this network is. When we stress it, we compare it against commercial networks and all commercial networks and it is not even in the same league. I wish we could advertise that everywhere. I don't think people would like that. What we do say is it is the highest and the fastest performing network -- which it is. It's not in the same league as a commercial network. When you

start putting loads on the commercial network, then it really does separate and become a completely different type network.

5G, the *Technology Committee* is very committed to 5G -- 5G architectures. Especially, on the RF side. How it's going to be deployed? As I talked earlier, we talked about we spent so much time trying to get the signal into buildings. Now, the next generation might be to get the signal out of the building and build completely different networks inside buildings.

You should be assured that the *Technology Committee* along with the management of FirstNet, we're going to work. We're not going to try to run out and do something that doesn't make any sense. We're going to do it at the right time. I think Chairman Horowitz has made that very clear. We will - it's not like we want to run out and have the first 4K TV -- which people were charging \$3,000 and there was no programming. Now, they're \$300 and there's still only two (2) programs.

Our first wireless handheld device cost \$3,500 when we launched them in Chicago. Then a year later they were \$500. So, you know, we'll do it at the right time for public safety. It will be - I can assure you, mission-critical 5G. It will be standard space that will enable vendors and everyone to build towards this network. That's one of the commitments and one of our strategies going into 2020, because you're going to hear a lot about 5G in the upcoming year. A lot of what you hear now is just hype. It's really not commercial 5G -- it's proprietary. But, we will have this network.

One of our commitments and our responsibilities in the act is to have this network evolve. We will do that, and we will do it at the right time for public safety. Our first goal is to get that coverage out there today, get it working, and make this network the best network that it can be. That's our

commitment from the *Technology Committee*. We've also had a lot of outreach by the committee members. General Chase hosted us down in Georgia -- at the Cypress Center in Augusta, Georgia. It was phenomenal to look at what was going on there. You learn a lot from these visits. We've been to - obviously, we've talked about the GNOC and the PSAC which again, the PSAC is an invaluable resource to this organization.

The last thing is the PCSR Stakeholder Conference in Chicago where you saw a lot of different universities and entrepreneurs looking at technologies for first responders. I was just blown away yesterday even during our round session about what they were doing here on the school busses and how they were using FirstNet and cameras, and, being able to control the Wi-Fi on a bus and then go to the video in case of an accident over the FirstNet network. Those are the kind of things that make this invaluable.

I can't stress the fact that, you know, this is public safety's network and you can play with it like this. You can't do any - nobody else's network is going to let you do this. Sheriff Miller, I congratulate you. Thank you for the kind comments. It's the technology of this network is second to none. We're very fortunate to have a partner to let us jump on the backs of their existing networks and build this thing, because this rolled out much faster than anybody had ever anticipated we were able to do, but will get better and better and better. This network is for public safety. With that, I will turn it back to Edward. Jeffrey, you want to make a comment?

Jeffrey Bratcher: Yes, thank you, Chairman Cox and Mark. Thanks again to the team. I know they spent a lot of time working on all these areas with public safety. My thanks to public safety as well. I'll turn it over to Edward Parkinson for updates on the roadmap and we will finish out the Senior Management part of this. Thank you.

Edward Parkinson: Thanks, Jeff. Appreciate it. Again, just to reiterate the type of engagements we had with public safety with industry, and really focusing on those three (3) top priority areas in network, public safety, and obviously industry engagement. Over 1,000 events were held across the country which led to the creation of the roadmap. It's been downloaded over 5,500 times from the [FirstNet.gov](https://www.firstnet.gov) website.

If you are watching and you haven't downloaded it, please do go to the website and download it, take a look, and see how you as an individual can play a role in engaging with FirstNet through the FirstNet Roadmap. It's been a tremendously useful tool, and again, one that's guiding the organization.

Next slide.

We've also been able to focus, as I mentioned before, on our investments based off the engagement we've had with public safety and how it's flowed through the roadmap. Back in September, the board initiated our processes towards the first two (2) investments. The first one expanding the NPSBN's deployable fleet, and the latter, kick-starting our investments in the 5G core.

Those two (2) investments still remain in the procurement process. Due to the federal procurement rules, we're not able to engage more into the details, but we continue to have negotiations on those and certainly look forward to bringing those forward with more news on that in the future.

Next slide.

With that, I'll pass it over to Kim Farington -- our CFO.

Kim Farington: Thank you, Edward. What I'm going to do now is just give you an update on our enterprise support priority. An update on how we've done for FY2019 (FY19) and our financial results.

As you can see from this graphic, the board approved an obligations budget for us for FY19 of \$81 million represented by that red line at the top. Last year, the board also approved an expense budget of \$76.5 million represented by the green line at the top. Below those lines, you see our cumulative results by month throughout the whole FY19 which brings us to the last couple bars on the far right, representing the whole FY. The blue bar represents our execution of our obligations which equated to \$68 million of the total \$81 million obligations budget approved by the board. Our expenses came up to \$60.6 million executed against that \$76.5 million expense budget.

There is a variance of about \$13 million, but, there is justification for this variance. First, as you may remember back, we had a permanent CEO that left on October 1 of last year (2018). Throughout this FY, we've had interim -CEOs, and because we had an interim area throughout the whole FY, we actually purposely forewent hiring vacancies and hiring behind people who have left just until we received and heard who our new CEO would be. We did have a variance due to those vacant positions that rolled throughout the FY.

The other predominant reason for the variance is related to contracts. We did have our plan per month for the contract execution but, had two (2) material contracts that were not able to make through the whole requisition process before the end of the FY last year that ended September 30. These two (2) material contracts will be obligated - or plan to be obligated in FY2020 (FY20). Again, they were not executed by the end of last FY.

The good news about these variances is that we do not lose these funds. The unobligated balance, they will carry over to next year and future fiscal years in support of the operations budget and also reinvestment back into the network.

That is the financial results for FY19. We couldn't have had such a good solid financial year without the support of the *Finance Committee* part of this board. Many accomplishments can be described with regard to the *Finance Committee*. I would like to now turn it over to Tip to talk about those accomplishments, if there are no questions on the cumulative financial results for FY19.

Robert Osterhaler: Thank you, Kim. The slide that we're on is *Financial Committee* accomplishments. What we list on here is basically three (3) resolutions that were passed. Of course, the resolutions themselves are just an expression of a significant amount of work that went into a number of major issues. Let me talk about them briefly.

Resolution 23, the last one listed, is part of the normal course of business of the *Finance Committee* and that is to participate in the development of the next year budget and discuss that with the team -- both, the internal FirstNet team and the financial teams within commerce and NTIA as well -- to make sure we have a good understanding of what the plans are for the coming year. That they're well documented and justified and so forth. That's just part of normal course of business in **Resolution 23** -- express the plan for FY20.

The more consequential, I think, for the long-term were probably **Resolutions 21 and 22**. Both of which had to do with the development of an investment decision-making framework. One of the central distinguishing characteristics of this - the FirstNet Authority and the way it's going to operate in the future

is that we're going to have significant income into the enterprise which then needs to be re-deployed for the benefit of the First Responder Community.

The process of taking those funds and allocating them to investment priorities that are brought to us by the First Responder Community through the PSAC and others requires a good deal of discipline. A lot of documentation because on the one hand we have a lot of industry experts and technology experts that are capable of coming up with, I think, the right ideas about what's worth investing into, but then connecting those funds into the acquisition process of the federal government is actually quite a complex process.

The two (2) **Resolutions, 21 and 22** both have to do with how we're going to do that. The first of those is entitled "investment principles," which is high-level guidance to be applied to all our investment decision-making. The second is a more definitive document which talks about financial responsibilities for reinvestment. I'd like to acknowledge the active participation of our federal Board members in particular because they are experts in the execution of federal dollars -- expertise that most of us on the board don't necessarily possess.

They helped us create a framework for decision-making so that we could take our decisions and we could execute them through the federal acquisition machinery. Federal Board members, thank you very much for crafting the principles and helping us understand how we can actually execute our dollars.

These resolutions provide for a compliant, transparent, and responsible process for allocating investment dollars into the national public safety broadband network throughout the remaining life of the program. I think they are very important, although they're one-time events. In terms of developing the budget for execution, I'd like to call out specifically Kim and her team for

developing all the documentation having to do with the budget. In addition, Maggie Mitchel from NTIA and Assistant Secretary Tom Gilman -- who's also the CFO of the Commerce Department.

They've helped us not only with the way to develop and document our budgets but also to understand what we need to do in order to responsibly invest for the future. I want to thank all the federal staff members and the others who participated in these processes. With that, if there are no questions, I'd like to turn it back over to Edward Parkinson who I think will then move to the priorities for the enterprise for the coming year.

Edward Parkinson: Thank you, sir, I appreciate that. As I mentioned, we went through the 2019 goals and what we achieved. Now, we shift towards 2020 where again, we have five (5) core objectives that we look to try and achieve. Contract oversight mirrors the actions that we took place in 2019 by ensuring that AT&T delivers upon what they've promised public safety in the contract that was signed a few years ago.

Continuing our engagement with the stakeholder community is vital to anything we do and everything we do at FirstNet. The commitment that we have to engage with public safety on all aspects of what we're trying to achieve at FirstNet is fundamental to the success of the organization.

I've spoken a number of times about the roadmap today, so that too is going to be the driving factor in how we decide and how we direct, and ultimately, what we end up accomplishing in 2020 by using the roadmap implementation as a key factor in the strategic direction of the organization which again, leads to investment.

We can't do one out of order with the other. We engage in public safety, we look at the impact it's had in our roadmap, we look at the strategic direction that our roadmap provides us. Then, we bring investment opportunities to the board. It's that necessary approach to ensure that we bring ideas that come from public safety so that we can make the best improvements we possibly can to the network going forward and, organizational health -- We have to ensure that the culture of FirstNet is one of service one of dedication to the public safety community. One, frankly, of expertise and heart-driven approach. We're so fortunate to have a team at FirstNet of the best people from across the country. We operate in all five (5) time zones. We operate and have had events in every single state and territory across the 56 states and territories and the District of Columbia in 2019. We certainly look to double-down on those efforts in 2020.

This just gives a quick snapshot in time of what we hope to achieve and focus in on in 2020. With that, I'll pass it over back to Edward Horowitz to go through the *Governance Committee* updates.

Edward Horowitz: Thank you. Also, I want to emphasize that last category -- organizational health. I think that it's extremely important that we make sure that we have an attractive environment for our staff and that they are treated with respect, and dignity in the most professional manner, and also that we're able to attract the most professional staff possible in order to achieve these objectives and aligned with the public safety community.

This next part of the meeting is going to be to review specifically by Committee the specific Board/Committee Charter and its Amendments. The first aspect is the - going to an overview and request by each Committee to approve the resolution which will then go up to the Board, which will then be embraced by an over-arching Charter adjustment.

For the members of the *Governance and Personnel Committee*. Members of the *Governance and Personnel Committee* proposed updates to the Committee's Charters that reflects the goals the Committees identify for 2020. The administrative updates include designating the Board chair -- that's a chairperson for the *Governance and Personnel Committee*. The Committee members also proposed several changes to the major duties and responsibilities section of the Committee Charter as summarized here in this slide.

Notably, the transfer of the review and the review of the FirstNet Risk Assessment and Compliance Program from the board's *Finance Committee* to the *Governance and Personnel Committee*. The *Finance Committee* has done a very thorough job in risk assessment, and will continue to participate in the overall enterprise risk assessment, but are now looking for over-arching enterprise risk assessment and compliance and we believe that the *Governance Committee* is the place to do that.

Then we took a look at the recommended actions related to the board's roles and responsibilities as well as to the progress we're making towards hiring a CEO. I'm going to ask the members of the *Governance Committee* if there are any final questions or comments on the adjustments that we're looking to make. Hearing none, I'm going to then ask that the *Governance Committee* vote on the *Governance and Personnel Committee* **Resolution Number 10**, and going to ask Madame Secretary, to please read the operative language.

Jennifer Watts: *Governance and Personnel Committee* **Resolution 10** now therefore be it resolved that the *Governance and Personnel Committee* approve and recommend that the board adopt the revised and amended FirstNet Authority *Governance and Personnel Committee Charter* as presented to the board by

the *Governance and Personnel Committee* -- a copy of which is attached hereto as Exhibit A.

Edward Horowitz: Thank you. May I have a motion to approve the *Governance and Personnel Committee* **Resolution Number 10**?

Neil Cox: Move to approve.

(Tip): Second.

Edward Horowitz: All right, second. Neil, first. Tip, second. All in favor, please aye.

Neil Cox: Aye.

(Tip): Aye.

Edward Horowitz: Aye. Any nay's? Extensions? No. Thank you. Madame Secretary, please make sure that the resolution is available to the public following this meeting. With that, let me turn it over to David.

David Buchanan: Thanks, Mr. Chairman. I want to take just a minute to talk to you about how we're going to improve our public safety advocacy approach in 2020. As Edward Parkinson mentioned, this continues to be a key area of focus for the overall organization. We're going to really work hard to make sure we're targeted, specific, and results-oriented this year. We'll be targeting audiences that are first responders to make sure we're hitting the right people who are responsible for delivering public safety services in their communities to really understand from the user base and the user community their feedback on FirstNet.

We'll be having conversations on specific priorities to make sure we're not just hitting the entry-level or 100-level conversations about the roadmap and the domains. The next layer down, the 200-level conversations, we really dig in deep on the various priorities that public safety's already told us that are important to them as we think about how to improve, enhance, and invest in the network.

Third, is being results-oriented in the kind of information we're capturing, so it can be readily imported into our roadmap and readily considered into our investment decisions. This time we're spending engaging public safety with the right people on the right topics are producing results that we can readily use on those important deliverables in the roadmap and in investment.

We've already begun this process. We had a terrific engagement targeting law enforcement and Fire Executives in Reston, Virginia on October 8, where we had specific conversations about mission critical voice and situational awareness have produced key deliverables that we're able to incorporate into our roadmap and investment considerations. Just yesterday, we had a targeted discussion with public safety here in South Florida to get their specific feedback on situation awareness tools that they use in preparing and responding to hurricanes. Again, being able to use that information to improve our roadmap and improve our investment considerations we think about situation awareness in 2020.

We're excited about this new approach, we're excited about how we're going to deliver it, and for the *Public Safety Committee* we've been working with for the last six (6) years, we're excited to continue to work with you on bringing targeted and specific and results-oriented engagements in 2020.

Richard Stanek: We have before us the name change from *Public Safety Advocacy (PSA) Committee* to just *Advocacy Committee* which we think would simplify a lot of the work staff does as well as our stakeholders across the country.

The major duties and responsibilities are fairly simple. Reviewing and providing recommendations regarding FirstNet Authority's approach for engaging educating and collaborating with the public safety community as well as, reviewing and providing recommendations on the FirstNet Authority roadmap as David has indicated. Third, promoting efforts to identify innovation opportunities to help differentiate the FirstNet network.

Any comments from Committee members regarding the name change? We discussed this yesterday briefly.

Edward Horowitz: Yes, I just want to make one comment. I think this is a very positive move forward and will help to de-conflict some conflict that may have existed between the *PSA Committee*, the PSAC, and this one since they both had the same acronyms. So, thank you.

Richard Stanek: Other comments from members of the committee?

Edward Horowitz: First, Jennifer has to read the language.

Jennifer Watts: The *Public Safety Advocacy Committee* **Resolution 10** now therefore be it resolved. The *Public Safety Advocacy Committee* approve and recommend that the board adopt the revised and amended FirstNet Authority *Public Safety Advocacy Committee Charter*. Including, a name change from the *Public Safety Advocacy Committee* to the *Advocacy Committee* as presented to the

board by the *Public Safety Advocacy Committee*. A copy of which is attached hereto as Exhibit A.

Richard Stanek: Motion made. Motion by Rich Carrizzo.

Paul Patrick: Second.

Richard Stanek: Second by Paul Patrick. All those in favor, say aye.

Group: Aye.

Richard Stanek: Those opposed? That motion prevails. I will turn it over to Neil.

Neil Cox: Thank you, Rich. I'll talk a bit about some of the 2020 goals. I've talked about them earlier, so I'll go over this very quickly. You'll see - I like to call it our monopoly table chart, but, it shows all the outreach that we had. All the different organizations and academia that we do in the technology committee and the collaboration that we do that forces all of these entities to drive to that bottom goal which is our roadmap -- the FirstNet Authority Roadmap.

With that, I want to go into the next slide which talks about the *Technology Committee Charter*. We have a change in our charter. Let me go through some of the first changes.

Number one is the name change. We changed it from the *Technology Committee* to the *Network and Technology Committee* because the network is very important to not just the technology but how the network performs. Our major duties are to provide technical expertise with respect to the evolution of the broadband networks and technologies. Review technical recommendations from management and provide recommendations to the

FirstNet broad on the FirstNet Authority’s Roadmap and priorities with respect to technology trends and feasibility. Review and provide recommendations on the FirstNet Authority’s approach to informing and collaborating with industry, academia, and other entities, and review and provide strategic guidance to the ongoing progress of the nationwide public safety broadband network deployment.

With that, I will open the floor to any of my technology – *Network and Technology Committee* members. If anyone has any comments about proposed changes? Hearing none, I’d like to thank you. We’re prepared to vote on the **Resolution 11**. Madame Secretary, please read the operative language.

Jennifer Watts: *Technology Committee* **Resolution 11** now therefore be it resolved that the *Technology Committee* approve and recommend that the board adopt the revise and amended FirstNet Authority *Technology Committee Charter*, including a name change from the *Technology* - to the *Network and Technology Committee* as presented to the board by the *Technology Committee*. A copy of which is attached hereto as Exhibit A.

Richard Carrizzo: Motion made.

Welton Chase: Second.

Neil Cox: All in favor, say aye.

Group: Aye.

Neil Cox: All opposed, say nay. Any abstentions? Hearing no abstentions, thank you. Madame Secretary, please make the following resolution available to the public following this meeting. I'll now turn it over to Tip.

Robert Osterhaler: Thank you, Neil. For those of you along, we're on Slide 32. Finance goals -- as you can see before you here -- are not always terribly exciting, but that's what you get when you put together a bunch of CPAs and a bunch of MBAs. But, in the area of finance, not exciting is generally good rather than bad.

The goals you see here are along the lines of the things you would expect the *Finance Committee* to focus on as it interacts with eh FirstNet and with the financial team. I would like to call out a couple things that are not specifically on the chart, but I think are important. Some of which I've already mentioned, and others which I will mention on a subsequent chart as well.

First, one area not called but less boring than what we normally do in our meetings, is the importance of the *Finance Committee* in helping the organization evaluate and prioritize and kind of scope the kinds of investments that are appropriate to be made. The *Technology Committee's* going to play a very key role in helping to identify what kinds of capabilities we need to have.

Then, the *Finance Committee* is going to have to look at those, make sure that we've identified the appropriate level of resources to the best of our ability, and help carry those forward. That's going to be a continuing and an increasingly important part -- although, it's not listed specifically on one of the goals part of what we do.

The other area in which we will I'm sure spend a fair amount of time is having divested ourselves a lead role in Enterprise Risk Management. We will

continue to be very deeply involved in Enterprise Risk Management. A great deal of it has to do with strict compliance with a whole host of laws, policies and procedures that must be followed within the Federal Government. So, the *Finance Committee* is going to have to make sure that we are disciplined and transparent in the way we do that. Again, although it's not listed as a goal, it's going to be a key continuing area of responsibility.

Moving now to proposed amendments to the charter. As mentioned earlier, the *Finance Committee* will be deeply involved in participating in the development of investments proposals. That's one of the important changes and growing areas of responsibility and interest for us. I also mentioned our continuing participation in Enterprise Risk Management. Although, the lead responsibility is going to the *Governance Committee*. We will, as reflected in the charter, continue having important responsibility there.

The other kind of major area of change has to do with diminishing our historic role in sort of preparing to award a contract, and focuses our attention more in the future on the execution of a contract. So, the language that is changing within our charter reflects those continuing responsibilities and changing responsibilities as well.

Before we vote on the new language, are there any questions or comments from members of the *Finance Committee* or others? Madame Secretary, before we vote, would you read the operative language please?

Jennifer Watts: The *Finance Committee* **Resolution 24** now therefore be it resolved that the *Finance Committee* approve and recommend that the board adopt the revised and amended FirstNet Authority *Finance Committee Charter* as presented to the Board by the *Finance Committee*. A copy of which is attached hereto as Exhibit A.

Robert Osterhaler: Thank you. May I have a motion to approve the *Finance Committee*
Resolution 24?

Paul Patrick: Motion to approve.

Brian Crawford: Second.

Robert Osterhaler: Paul Patrick was the motion to approve. The second was Brian Crawford. All in favor, say aye.

Group: Aye.

Robert Osterhaler: Any opposed? Any abstentions? No opposition, no abstentions. Madame Secretary, please note that the resolution was unanimously approved. Make the resolution available to the public following this meeting. Thank you.

Back to Chairman Horowitz to review **Board Resolution 103**.

Edward Horowitz: Thanks, Tip. The board is now prepared to vote on **Resolution 103** -- the FirstNet Authority Bylaws and Committee Charter revisions. The resolution revises and amends the Bylaws of the First Responder Network Authority to reflect the revised and amended Committee Charters as presented by each of the Board's Committee, and, approves the proposed change in name with the *Technology Committee* to the *Network and Technology Committee*. The change in name of the *Public Safety Advocacy Committee* to the *Advocacy Committee*. Before we vote, are there any final note questions from any member of the board? Okay. With that, Jennifer, could you please read the operative language.

Jennifer Watts: **Board Resolution 103** now therefore be it resolved that the FirstNet Authority Board hereby adopts the revised and amended Bylaws of the FirstNet Authority as presented by management. A copy of which is attached hereto as Exhibit A.

Be it also resolved that the FirstNet Authority Board having reviewed the recommended revisions to each of the Committee charters as proposed by each Board Committee hereby adopts the revised and amended Committee charters as presented by each of the Board Committees of the FirstNet Authority. Copies of which are attached hereto as Exhibit B.

Be it resolved that the FirstNet Authority Board hereby approves the proposed change in name of the *Technology Committee* to the *Network and Technology Committee*, and will amend the FirstNet Authority Bylaws to reflect this change.

Be it resolved that the FirstNet Authority Board hereby approves the proposed change in name of the *Public Safety Advocacy Committee* to the *Advocacy Committee*, and will amend the FirstNet Authority Bylaws to reflect this change.

Edward Horowitz: Thank you. May I have a motion to approve **Board Resolution 103**, please?

Neil Cox: So moved.

Edward Horowitz: Neil. Second?

Richard Carrizzo: Second.

Edward Horowitz: Rich Carrizzo. Thank you very much. All in favor, say aye.

Group: Aye.

Edward Horowitz: Opposed, say nay. Hearing none. And abstentions? None. Madame Secretary, please make the following resolution available to the public following this meeting. Thank you. Jeff, I'm going to turn the floor over to you to provide the closing comments.

Jeffrey Bratcher: Great, thank you Mr. Chairman. Thank you, again, to the board. It's been a fantastic 2019. I look forward to a very successful 2020. Congratulations again, to Sheriff Miller for your award. Thank you for attending with us today. I know the team and everyone at FirstNet on the staff are very honored to work on this network.

What drove it home for me in our panel discussion yesterday was a story shared by Assistant Chief (Dennis Weiner) from the Palm Beach School District -- the tenth largest school district in the nation. They have leveraged FirstNet, adopted FirstNet. Outfitted over 850 buses with the capabilities, and were able to stop two (2) school shootings leveraging the FirstNet network. That drove home to me as a parent of a 15 and 12-year-old, just the impact this network is having, and the lives that are being saved.

I know I speak for all the staff, that we're very humbled to work on that and have a small part in saving lives and providing the tools and resources that public safety needs to do their live-saving jobs. With that, Mr. Chairman, thank you very much. I'm going to turn it over to Edward Parkinson.

Edward Parkinson: Thanks, Jeff. I appreciate the time and to provide a few closing remarks. I think 2019 has been incredibly successful year when one thinks of the accomplishments that the Authority's been able to achieve. Not only related

to kick-starting our strategic investment, the publication of roadmap, our new strategic plan. The number of engagements that the board has been involved in, not only the ones for the *PSA* group under David's leadership have been able to provide, but the strategic guidance that we've been able to show our partner -- AT&T.

We are public safety's voice. We all have public safety's back. We do not answer to shareholders, we only answer to public safety's sentiment. Having that as the cornerstone of what we're trying to achieve in 2019 is really the bedrock upon which we will build the successes in 2020. One million adoption is an incredible number, but it's a good start. That's all it is. It's a good start. We have a 25-year contract for a reason. We're only a couple years into that process. We're not looking for numbers in 6 months, in 12 months, on a quarterly basis.

We're looking at the longevity of the network. We're looking at the longevity of public safety to ensure that the network can provide services and tools for men and women out there who are protecting us every day so that we have their backs when they have ours. I think that's the cornerstone of what we're trying to achieve at the FirstNet Authority. I'm really proud of what we've been able to achieve in 2019, and certainly looking forward to an aggressive year in 2020 to further the goals and the ambitions of what we've been able to build upon. Thank you so much.

Edward Horowitz: Thank you, Edward. Thank you everybody for today and participating in yesterday's briefings. We have an incredible mission. We are on a marathon, as someone said earlier. The technology continues to evolve, the network continues to evolve, the public safety community itself is evolving. The average age in public safety is evolving. It's getting younger. The next generation - the MTV generation is aging out, and we have now a millennial

generation that's coming in and then, after that it's Gen C. And then, I don't know what the next generation will be behind that, but, I know that we all take for granted that we can do everything we need to do on a tablet. We got to make sure the it's rugged. That it works wherever that environment is, and it's always on -- always connected to a network. That's our objective. Make sure we are always on and always connected, and that the messages coming in are the ones we want to come out without interruption and without alteration. With that, I think we're prepared to adjourn the meeting. Our next meeting is March 19, 2020 currently scheduled in Los Angeles, CA -- details to come later. May I have a motion to adjourn the meeting? Tip. Second?

Richard Stanek: Second.

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

Group: Aye.

Edward Horowitz: Opposed? Somebody wants to stay longer? Okay, nay. Hearing that, thanks to all of you who participated here in person, and the audience who's joined us on the phone and the webcast today. The meeting is now adjourned. Thank you.

Coordinator: This does conclude today's conference. Thank you all for participating. You may now disconnect.

END